

# Inhaltsverzeichnis

|                                                             |    |
|-------------------------------------------------------------|----|
| <b>1. Einleitung</b>                                        | 9  |
| Schritt 1 - Vorbereiten des Bausatzes                       | 10 |
| Schritt 2 - How to navigate through the manual              | 10 |
| Schritt 3 - View high resolution images                     | 11 |
| Schritt 4 - All the required tools are included             | 11 |
| Schritt 5 - Additional utilities for this guide             | 12 |
| Schritt 6 - Abbildungen der Bauteile                        | 12 |
| Schritt 7 - Ersatzteilbeutel                                | 13 |
| Schritt 8 - Printed parts - versioning                      | 13 |
| Schritt 9 - We are here for you!                            | 14 |
| Schritt 10 - Pro tip: inserting the nuts                    | 15 |
| Schritt 11 - Wichtig: Schutz der Elektronik                 | 16 |
| Schritt 12 - Belohnen Sie sich selbst                       | 17 |
| Schritt 13 - How to successfully finish the assembly        | 18 |
| Schritt 14 - Ihren Arbeitsplatz vorbereiten                 | 19 |
| Schritt 15 - Installing the add-ons and upgrades            | 20 |
| <b>2. Zusammenbau der Basis</b>                             | 21 |
| Schritt 1 - Tools necessary for this chapter                | 22 |
| Schritt 2 - Base assembly: parts preparation                | 22 |
| Schritt 3 - Inserting the zip ties                          | 23 |
| Schritt 4 - Base assembly: parts preparation                | 23 |
| Schritt 5 - Installing the motor mounts                     | 24 |
| Schritt 6 - Installing the rear motor                       | 24 |
| Schritt 7 - Securing the rear motor                         | 25 |
| Schritt 8 - Installing the front motor right                | 25 |
| Schritt 9 - Installing the front motor left                 | 26 |
| Schritt 10 - Bottom frame: parts preparation                | 26 |
| Schritt 11 - Assembling the bottom profile: front + left    | 27 |
| Schritt 12 - Assembling the bottom profile: left + rear     | 27 |
| Schritt 13 - Assembling the bottom profile: right           | 28 |
| Schritt 14 - Inserting the spacer pins                      | 28 |
| Schritt 15 - Anti-vibration feet: parts preparation         | 29 |
| Schritt 16 - Installing the anti-vibration feet             | 29 |
| Schritt 17 - Installing the bottom frame                    | 30 |
| Schritt 18 - Mounting the bottom frame: right side          | 30 |
| Schritt 19 - Mounting the bottom frame: rear + left + front | 31 |
| Schritt 20 - Haribo Zeit!                                   | 31 |
| Schritt 21 - Abgeschlossen                                  | 32 |
| <b>3. Rückseite Montage</b>                                 | 33 |
| Schritt 1 - Tools necessary for this chapter                | 34 |
| Schritt 2 - PSU assembly: parts preparation                 | 34 |
| Schritt 3 - Vorbereiten des Netzteils                       | 35 |
| Schritt 4 - Stromkabel Info                                 | 36 |
| Schritt 5 - Anschließen des Netzteils                       | 37 |
| Schritt 6 - xBuddy: parts preparation I.                    | 37 |
| Schritt 7 - xBuddy: parts preparation II.                   | 38 |
| Schritt 8 - Applying the thermal pads                       | 38 |
| Schritt 9 - Installieren des xBuddy                         | 39 |
| Schritt 10 - Installing the xBuddy extension                | 39 |
| Schritt 11 - Installieren der Kabelbinder                   | 40 |

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| Schritt 12 - Connecting the xBuddy extension board .....         | 40        |
| Schritt 13 - Inserting grommets: xBuddy box .....                | 41        |
| Schritt 14 - WiFi: Vorbereitung der Teile .....                  | 41        |
| Schritt 15 - Zusammenbau des Wi-Fi .....                         | 42        |
| Schritt 16 - Installing the Wi-Fi assembly .....                 | 42        |
| Schritt 17 - Back panel: parts preparation .....                 | 43        |
| Schritt 18 - Installing grommets: back panel top .....           | 43        |
| Schritt 19 - Installing grommets: sides + bottom .....           | 44        |
| Schritt 20 - Ausrichten des Netzteils .....                      | 44        |
| Schritt 21 - Montieren des Netzteils .....                       | 45        |
| Schritt 22 - Aligning the xBuddy box assembly .....              | 45        |
| Schritt 23 - Mounting the xBuddy box .....                       | 46        |
| Schritt 24 - Power cables cover: parts preparation .....         | 46        |
| Schritt 25 - Connecting the power cables .....                   | 47        |
| Schritt 26 - Vorbereiten der PSU-cable-cover .....               | 48        |
| Schritt 27 - Covering the PSU cables .....                       | 48        |
| Schritt 28 - Chamber fans: parts preparation .....               | 49        |
| Schritt 29 - Assembling the fan grid .....                       | 49        |
| Schritt 30 - Anbringen der Lüfter .....                          | 50        |
| Schritt 31 - Covering the cooling fans .....                     | 50        |
| Schritt 32 - Rear profiles: parts preparation .....              | 51        |
| Schritt 33 - Installing the rear profiles .....                  | 51        |
| Schritt 34 - Mounting the back panel .....                       | 52        |
| Schritt 35 - Stepper splitter: parts preparation .....           | 52        |
| Schritt 36 - Guiding the Stepper splitter cable .....            | 53        |
| Schritt 37 - Connecting the Stepper splitter .....               | 53        |
| Schritt 38 - Mounting the Stepper Splitter .....                 | 54        |
| Schritt 39 - LCD cable: parts preparation .....                  | 54        |
| Schritt 40 - Guiding the LCD cable .....                         | 55        |
| Schritt 41 - Main FE cable INFO .....                            | 55        |
| Schritt 42 - Connecting the FE cable (no 3.) .....               | 56        |
| Schritt 43 - Guiding the FE cable (no. 2) .....                  | 56        |
| Schritt 44 - Guiding the FE cable (no. 1) .....                  | 57        |
| Schritt 45 - Guiding the FE cable (no. 4 and 5) .....            | 57        |
| Schritt 46 - FE cable - xBuddy: parts preparation .....          | 58        |
| Schritt 47 - Connecting the FE cable: xBuddy .....               | 58        |
| Schritt 48 - Plugging the xLCD cable .....                       | 59        |
| Schritt 49 - PSU-cover: Vorbereitung der Teile .....             | 59        |
| Schritt 50 - Connecting the FE cable: PSU .....                  | 60        |
| Schritt 51 - Haribo Zeit! .....                                  | 60        |
| Schritt 52 - Abgeschlossen .....                                 | 61        |
| <b>4. Zusammenbau des Heizbetts .....</b>                        | <b>62</b> |
| Schritt 1 - Benötigte Werkzeuge für dieses Kapitel .....         | 63        |
| Schritt 2 - Heizbett: Teilevorbereitung .....                    | 64        |
| Schritt 3 - Heizbettkabel Zusammenbau (Teil 1) .....             | 64        |
| Schritt 4 - Heizbettkabel Zusammenbau (Teil 2) .....             | 65        |
| Schritt 5 - Bed-cable-cover-bottom: Vorbereitung der Teile ..... | 65        |
| Schritt 6 - Anbringen der Kabelabdeckung .....                   | 66        |
| Schritt 7 - Heatbed carriage: Vorbereitung der Teile .....       | 66        |
| Schritt 8 - Vorbereiten des Heatbed-carriage .....               | 67        |
| Schritt 9 - Installieren der Expansion-joints .....              | 67        |
| Schritt 10 - RGB-LED-Streifen: Vorbereitung der Teile .....      | 68        |
| Schritt 11 - Installieren des LED-Streifens .....                | 68        |
| Schritt 12 - Anbringen des LED-Streifen-Diffusors .....          | 69        |



|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| Schritt 13 - Abdecken des RGB-LED-Streifens .....                   | 69        |
| Schritt 14 - Führen des Kabels der RGB-LED-Streifen .....           | 70        |
| Schritt 15 - Bettbefestigungen: Vorbereitung der Teile .....        | 70        |
| Schritt 16 - Montieren der Bettbefestigungen .....                  | 71        |
| Schritt 17 - Befestigen der Bettbefestigungen .....                 | 71        |
| Schritt 18 - Bettbefestigungen: Einsetzen der Muttern .....         | 72        |
| Schritt 19 - Zusammenbau der CORE-One-bed-spacer-rear .....         | 72        |
| Schritt 20 - Installieren des Bed-mount-right .....                 | 72        |
| Schritt 21 - Installieren des Bed-mount-left .....                  | 73        |
| Schritt 22 - Anbringen des Heizbettes: Vorbereitung der Teile ..... | 73        |
| Schritt 23 - Befestigen des Heizbetts .....                         | 74        |
| Schritt 24 - Festziehen des Heizbettes .....                        | 74        |
| Schritt 25 - Abdecken der Kabel: Vorbereitung der Teile .....       | 75        |
| Schritt 26 - Guiding the heatbed cables .....                       | 75        |
| Schritt 27 - Covering the heatbed cables .....                      | 76        |
| Schritt 28 - Mounting the heatbed: parts preparation .....          | 76        |
| Schritt 29 - Attaching the heatbed assembly .....                   | 77        |
| Schritt 30 - Mounting the heatbed assembly: rear motor .....        | 78        |
| Schritt 31 - Mounting the heatbed assembly: front motor left .....  | 78        |
| Schritt 32 - Mounting the heatbed assembly: front motor right ..... | 79        |
| Schritt 33 - Attaching the heatbed cables I. ....                   | 79        |
| Schritt 34 - Attaching the heatbed cables II. ....                  | 80        |
| Schritt 35 - Securing the heatbed cables: parts preparation .....   | 80        |
| Schritt 36 - Securing the textile sleeve .....                      | 81        |
| Schritt 37 - Guiding the heatbed assembly cables .....              | 81        |
| Schritt 38 - Connecting the heatbed power cables .....              | 82        |
| Schritt 39 - Haribo Zeit! .....                                     | 82        |
| Schritt 40 - Abgeschlossen .....                                    | 83        |
| <b>5. CoreXY Montage .....</b>                                      | <b>84</b> |
| Schritt 1 - Tools necessary for this chapter .....                  | 85        |
| Schritt 2 - Rod holders: parts preparation .....                    | 85        |
| Schritt 3 - Assembling the rod holders .....                        | 86        |
| Schritt 4 - Preparing the front rod holders .....                   | 86        |
| Schritt 5 - Installing the front rod holders .....                  | 87        |
| Schritt 6 - XY carriage: parts preparation .....                    | 87        |
| Schritt 7 - Zusammenbau der XY-carriages .....                      | 88        |
| Schritt 8 - Assembling the linear holder left .....                 | 88        |
| Schritt 9 - Assembling the linear holder right .....                | 89        |
| Schritt 10 - Attaching the linear holder assemblies .....           | 89        |
| Schritt 11 - Glatte Stangen INFO .....                              | 90        |
| Schritt 12 - Mounting the smooth rods .....                         | 90        |
| Schritt 13 - Securing the rear rod holders .....                    | 91        |
| Schritt 14 - Securing the front rod holders .....                   | 91        |
| Schritt 15 - Motor mounts: parts preparation .....                  | 92        |
| Schritt 16 - Motor mounts: part preparation .....                   | 92        |
| Schritt 17 - Assembling the XY-motor-mount-right I. ....            | 93        |
| Schritt 18 - Assembling the XY-motor-mount-right II. ....           | 93        |
| Schritt 19 - Assembling the XY-motor-mount-left I. ....             | 94        |
| Schritt 20 - Assembling the XY-motor-mount-left II. ....            | 94        |
| Schritt 21 - Belt tensioners: parts preparation I. ....             | 95        |
| Schritt 22 - Belt tensioners: parts preparation II. ....            | 95        |
| Schritt 23 - Preparing the tensioner pulleys .....                  | 96        |
| Schritt 24 - Assembling the belt tensioner left I. ....             | 96        |
| Schritt 25 - Assembling the belt tensioner left II. ....            | 97        |

|                                                                      |     |
|----------------------------------------------------------------------|-----|
| Schritt 26 - Assembling the belt tensioner right .....               | 97  |
| Schritt 27 - Installing the belt tensioners: parts preparation ..... | 98  |
| Schritt 28 - Installing the motor mount left .....                   | 98  |
| Schritt 29 - Installing the motor mount right .....                  | 99  |
| Schritt 30 - Installieren des Belt-tensioner-left .....              | 99  |
| Schritt 31 - Installieren des Belt-tensioner-right .....             | 100 |
| Schritt 32 - Linear rail: parts preparation .....                    | 100 |
| Schritt 33 - Attaching the linear rail .....                         | 101 |
| Schritt 34 - Securing the linear rail .....                          | 101 |
| Schritt 35 - Installing the linear rail: parts preparation .....     | 102 |
| Schritt 36 - Installing the linear rail assembly .....               | 102 |
| Schritt 37 - Linear rail: removing the safety pins .....             | 103 |
| Schritt 38 - Bed-stop: Vorbereitung der Teile .....                  | 103 |
| Schritt 39 - Zusammenbau des Bed-stop .....                          | 103 |
| Schritt 40 - Anbringen des Bed-stop .....                            | 104 |
| Schritt 41 - X&Y motors: parts preparation .....                     | 104 |
| Schritt 42 - Installing the X-axis pulley .....                      | 105 |
| Schritt 43 - Installing the Y-axis pulley .....                      | 106 |
| Schritt 44 - XY belts: parts preparation .....                       | 107 |
| Schritt 45 - XY Riemen INFO .....                                    | 107 |
| Schritt 46 - Y belt guiding: Y motor pulley .....                    | 108 |
| Schritt 47 - Securing the Y-axis motor .....                         | 108 |
| Schritt 48 - Y belt guiding: Y motor mount .....                     | 109 |
| Schritt 49 - Y belt guiding: belt tensioner .....                    | 109 |
| Schritt 50 - Y belt guiding: X motor mount .....                     | 110 |
| Schritt 51 - Y belt guiding: securing the belt .....                 | 110 |
| Schritt 52 - X belt guiding: X motor pulley .....                    | 111 |
| Schritt 53 - Securing the X-axis motor .....                         | 111 |
| Schritt 54 - Y belt guiding: X motor mount .....                     | 112 |
| Schritt 55 - X belt guiding: belt tensioner .....                    | 112 |
| Schritt 56 - X belt guiding: Y motor mount .....                     | 113 |
| Schritt 57 - X belt guiding: securing the belt .....                 | 113 |
| Schritt 58 - Checking the belt guidance .....                        | 114 |
| Schritt 59 - Bowden guide: parts preparation .....                   | 114 |
| Schritt 60 - Securing the Nextruder holder .....                     | 115 |
| Schritt 61 - Securing the Y motor cable .....                        | 115 |
| Schritt 62 - Befestigen des X-Motorkabels .....                      | 116 |
| Schritt 63 - Installieren der Bowdenführung .....                    | 116 |
| Schritt 64 - Weißer LED-Streifen: Vorbereitung der Teile .....       | 117 |
| Schritt 65 - Aufkleben des weißen LED-Streifens .....                | 117 |
| Schritt 66 - Installing the white LED assembly .....                 | 118 |
| Schritt 67 - Door sensor & White LED strip: parts preparation .....  | 118 |
| Schritt 68 - Inserting the zip ties .....                            | 119 |
| Schritt 69 - Installing the door sensor .....                        | 119 |
| Schritt 70 - Securing the door sensor cable .....                    | 120 |
| Schritt 71 - Guiding the cables: LED and door sensor .....           | 120 |
| Schritt 72 - Buddy3D Kamera Hinweis .....                            | 121 |
| Schritt 73 - Smooth rods: parts preparation .....                    | 122 |
| Schritt 74 - Installing the CoreXY assembly .....                    | 122 |
| Schritt 75 - Securing the smooth rods .....                          | 123 |
| Schritt 76 - Ausrichten der Linearschiene .....                      | 123 |
| Schritt 77 - Führen der Corexy-Kabel .....                           | 124 |
| Schritt 78 - Führen der Kühllüfterkabel .....                        | 124 |
| Schritt 79 - Befestigen des Bed-stop .....                           | 125 |
| Schritt 80 - Anschließen der Kabel der Kühllüfter .....              | 125 |

|                                                                   |            |
|-------------------------------------------------------------------|------------|
| Schritt 81 - Anschließen der Corexy-Kabel .....                   | 126        |
| Schritt 82 - Haribo Zeit! .....                                   | 126        |
| Schritt 83 - Abgeschlossen .....                                  | 127        |
| <b>6. Zusammenbau des Nextruders .....</b>                        | <b>128</b> |
| Schritt 1 - Tool necessary for this chapter .....                 | 129        |
| Schritt 2 - Nextruder Spannrolle: Vorbereitung der Teile .....    | 129        |
| Schritt 3 - Assembling the extruder idler .....                   | 130        |
| Schritt 4 - Assembling the extruder: parts preparation I. ....    | 130        |
| Schritt 5 - Assembling the extruder: parts preparation II. ....   | 131        |
| Schritt 6 - Zusammenbau des Extruders .....                       | 131        |
| Schritt 7 - Zusammenbau des Getriebes .....                       | 132        |
| Schritt 8 - Zusammenbau des PG-Rings .....                        | 133        |
| Schritt 9 - Zusammenbau der PG-Baugruppe .....                    | 133        |
| Schritt 10 - Prüfen der PG-Baugruppe .....                        | 134        |
| Schritt 11 - Assembling the Nextruder idler .....                 | 134        |
| Schritt 12 - Gear lubrication: parts preparation .....            | 135        |
| Schritt 13 - Schmieren des Getriebes .....                        | 135        |
| Schritt 14 - Covering the planetary gear .....                    | 136        |
| Schritt 15 - Assembling the Idler-swivel: parts preparation ..... | 136        |
| Schritt 16 - Montieren des Idler-swivels .....                    | 137        |
| Schritt 17 - Montieren der Idler-Mutter .....                     | 137        |
| Schritt 18 - Mounting the Idler-swivel assembly .....             | 138        |
| Schritt 19 - NTC thermistor: parts preparation .....              | 138        |
| Schritt 20 - Assembling the NTC thermistor .....                  | 139        |
| Schritt 21 - Mounting the Nextruder: parts preparation .....      | 139        |
| Schritt 22 - Schutz des Heizbettes .....                          | 140        |
| Schritt 23 - Befestigen des Nextruders .....                      | 140        |
| Schritt 24 - Hotend Lüfter: Vorbereitung der Teile .....          | 141        |
| Schritt 25 - Einbau des Hotend-Lüfters .....                      | 141        |
| Schritt 26 - Führen der Kabel des Hotends .....                   | 142        |
| Schritt 27 - LoveBoard: parts preparation I. ....                 | 142        |
| Schritt 28 - LoveBoard: parts preparation II. ....                | 143        |
| Schritt 29 - Montage des Loveboard-Mounts .....                   | 143        |
| Schritt 30 - Zusammenbau der Druckkopfabdeckung .....             | 144        |
| Schritt 31 - Montieren des LoveBoards .....                       | 144        |
| Schritt 32 - Führung des Hauptkabels .....                        | 145        |
| Schritt 33 - Abdecken des LoveBoards .....                        | 145        |
| Schritt 34 - Swingarm: parts preparation I. ....                  | 146        |
| Schritt 35 - Swingarm: parts preparation II. ....                 | 146        |
| Schritt 36 - Führung des Hauptkabels .....                        | 147        |
| Schritt 37 - Mounting the main cable .....                        | 147        |
| Schritt 38 - Attaching the LoveBoard assembly .....               | 148        |
| Schritt 39 - Befestigung des Schwenkarms .....                    | 148        |
| Schritt 40 - Attaching the main cable .....                       | 149        |
| Schritt 41 - Inserting the PTFE tube .....                        | 149        |
| Schritt 42 - Securing the PTFE tube .....                         | 150        |
| Schritt 43 - Überprüfung der Bewegung .....                       | 150        |
| Schritt 44 - Print fan: parts preparation .....                   | 151        |
| Schritt 45 - Lüfterhaube montieren .....                          | 151        |
| Schritt 46 - Installing the print fan assembly .....              | 152        |
| Schritt 47 - Hotend: Vorbereitung der Teile .....                 | 152        |
| Schritt 48 - Einsetzen des Hotends .....                          | 153        |
| Schritt 49 - Connecting the heatsink cables .....                 | 153        |
| Schritt 50 - Connecting the hotend cables .....                   | 154        |

|                                                            |            |
|------------------------------------------------------------|------------|
| Schritt 51 - Connecting the print fan cable .....          | 154        |
| Schritt 52 - E-Motor-Kabel anschließen .....               | 154        |
| Schritt 53 - LoveBoard covers: parts preparation .....     | 155        |
| Schritt 54 - Abdecken des LoveBoards .....                 | 155        |
| Schritt 55 - LoveBoard: Verdrahtung prüfen .....           | 156        |
| Schritt 56 - Guiding the main cable .....                  | 156        |
| Schritt 57 - Haribo Zeit! .....                            | 157        |
| Schritt 58 - Abgeschlossen .....                           | 157        |
| <b>7. Bodywork &amp; Electronics .....</b>                 | <b>158</b> |
| Schritt 1 - Tools necessary for this chapter .....         | 159        |
| Schritt 2 - Front profiles: parts preparation .....        | 159        |
| Schritt 3 - Installing the front right profile .....       | 160        |
| Schritt 4 - Installieren des linken vorderen Profils ..... | 160        |
| Schritt 5 - Obere Profile: Vorbereitung der Teile .....    | 161        |
| Schritt 6 - Assembling the top profiles I. ....            | 161        |
| Schritt 7 - Assembling the top profiles II. ....           | 162        |
| Schritt 8 - Aligning the top profiles .....                | 162        |
| Schritt 9 - Installing the top profiles .....              | 163        |
| Schritt 10 - CoreXY fixing screws: parts preparation ..... | 163        |
| Schritt 11 - Fixing the CoreXY assembly .....              | 164        |
| Schritt 12 - Side sensor base: parts preparation .....     | 164        |
| Schritt 13 - Assembling the side sensor base .....         | 165        |
| Schritt 14 - Testen des Hebels .....                       | 165        |
| Schritt 15 - Zusammenbauen des Schalters .....             | 166        |
| Schritt 16 - IR Sensor: parts preparation .....            | 166        |
| Schritt 17 - Connecting the IR sensor .....                | 167        |
| Schritt 18 - Installing the IR sensor .....                | 167        |
| Schritt 19 - Installing the side sensor cover .....        | 168        |
| Schritt 20 - Side filament sensor: parts preparation ..... | 168        |
| Schritt 21 - Installing the side filament sensor .....     | 169        |
| Schritt 22 - Guide the filament sensor cable .....         | 169        |
| Schritt 23 - Connecting the side filament sensor .....     | 170        |
| Schritt 24 - NFC Antenna: parts preparation .....          | 170        |
| Schritt 25 - Applying the adhesive film .....              | 171        |
| Schritt 26 - Installing the NFC Coil .....                 | 171        |
| Schritt 27 - Connecting the NFC Coil .....                 | 172        |
| Schritt 28 - Verdrahtung prüfen .....                      | 172        |
| Schritt 29 - Preparing the electronics cover .....         | 173        |
| Schritt 30 - Installing the electronics cover .....        | 173        |
| Schritt 31 - Buddy3D Kamera Hinweis .....                  | 174        |
| Schritt 32 - xBuddy cover: parts preparation .....         | 174        |
| Schritt 33 - Installing the xBuddy cover .....             | 175        |
| Schritt 34 - Installing the rear cover .....               | 175        |
| Schritt 35 - Right side: parts preparation .....           | 176        |
| Schritt 36 - Installieren des Spulenhalter-puck .....      | 176        |
| Schritt 37 - Right handle: parts preparation .....         | 177        |
| Schritt 38 - Einbau der Spannzange .....                   | 177        |
| Schritt 39 - Montieren des Griiffs .....                   | 178        |
| Schritt 40 - Fixing the right side .....                   | 178        |
| Schritt 41 - Left side: parts preparation .....            | 179        |
| Schritt 42 - Installing the left side .....                | 179        |
| Schritt 43 - Haribo Zeit! .....                            | 180        |
| Schritt 44 - Abgeschlossen .....                           | 180        |
| <b>8. Trim, Door &amp; xLCD .....</b>                      | <b>181</b> |

|                                                                       |            |
|-----------------------------------------------------------------------|------------|
| Schritt 1 - Tools necessary for this chapter .....                    | 182        |
| Schritt 2 - Top cover: parts preparation .....                        | 182        |
| Schritt 3 - Entfernen der Folie .....                                 | 183        |
| Schritt 4 - Test-fitting the top cover .....                          | 183        |
| Schritt 5 - Assembling the top cover I. ....                          | 184        |
| Schritt 6 - Assembling the top cover II. ....                         | 184        |
| Schritt 7 - Belüftung testen .....                                    | 185        |
| Schritt 8 - Installing the top cover .....                            | 185        |
| Schritt 9 - Side covers: parts preparation .....                      | 186        |
| Schritt 10 - Entfernen der Folie .....                                | 186        |
| Schritt 11 - Covering the left side .....                             | 187        |
| Schritt 12 - Covering the right side .....                            | 187        |
| Schritt 13 - xLCD: Teile Vorbereitung .....                           | 188        |
| Schritt 14 - Assembling the xLCD I. ....                              | 188        |
| Schritt 15 - Assembling the xLCD II. ....                             | 189        |
| Schritt 16 - Installing the FE Faston connector .....                 | 189        |
| Schritt 17 - Installing the LCD knob .....                            | 190        |
| Schritt 18 - xLCD bezel: parts preparation .....                      | 190        |
| Schritt 19 - Mounting the xLCD I. ....                                | 191        |
| Schritt 20 - Mounting the xLCD II. ....                               | 191        |
| Schritt 21 - Installing the xLCD assembly .....                       | 192        |
| Schritt 22 - Securing the xLCD assembly .....                         | 192        |
| Schritt 23 - Door seal: parts preparation .....                       | 193        |
| Schritt 24 - Attaching the top seal .....                             | 193        |
| Schritt 25 - Attaching the side seals .....                           | 194        |
| Schritt 26 - Magnet holders: parts preparation .....                  | 194        |
| Schritt 27 - Assembling the magnet holders .....                      | 195        |
| Schritt 28 - Installing the magnet holders .....                      | 195        |
| Schritt 29 - Scharniere: Vorbereitung der Teile .....                 | 196        |
| Schritt 30 - Installing the door-hinge-in parts .....                 | 196        |
| Schritt 31 - Installing the door-hinge-out I. ....                    | 197        |
| Schritt 32 - Installing the door-hinge-out II. ....                   | 197        |
| Schritt 33 - Door panel: parts preparation .....                      | 198        |
| Schritt 34 - Door panel: removing the protective film .....           | 198        |
| Schritt 35 - Installing the door panel .....                          | 199        |
| Schritt 36 - Assembling the door handle .....                         | 199        |
| Schritt 37 - Securing the door handle .....                           | 200        |
| Schritt 38 - Anbringen des Aufklebers: Vorbereitung der Teile .....   | 200        |
| Schritt 39 - Anbringen des Aufklebers .....                           | 201        |
| Schritt 40 - Haribo Zeit! .....                                       | 201        |
| Schritt 41 - Abgeschlossen .....                                      | 202        |
| <b>9. Calibration &amp; First run .....</b>                           | <b>203</b> |
| Schritt 1 - Riemen Spannen .....                                      | 204        |
| Schritt 2 - Einbau des Spulenhalters: Vorbereitung der Teile .....    | 204        |
| Schritt 3 - Auflegen des Druckblechs und Spulenhalter anbringen ..... | 205        |
| Schritt 4 - Firmware Update .....                                     | 205        |
| Schritt 5 - Einschalten des Druckers .....                            | 206        |
| Schritt 6 - Setting up the printer: Intro .....                       | 206        |
| Schritt 7 - Setting up the printer: Network setup .....               | 207        |
| Schritt 8 - Assistent: Intro .....                                    | 207        |
| Schritt 9 - Wizard: Door Sensor Calibration .....                     | 208        |
| Schritt 10 - Assistent: Wägezellentest .....                          | 208        |
| Schritt 11 - Assistent: Getriebeausrichtung .....                     | 209        |
| Schritt 12 - Wizard: Filament Sensor Calibration .....                | 209        |

|                                               |            |
|-----------------------------------------------|------------|
| Schritt 13 - Assistent abgeschlossen .....    | 210        |
| Schritt 14 - Haribo Zeit! .....               | 210        |
| Schritt 15 - Handbuch .....                   | 211        |
| Schritt 16 - Prusa-Wissensbasis .....         | 211        |
| Schritt 17 - Kommen Sie zu Printables! .....  | 212        |
| <b>Änderungsprotokoll der Anleitung .....</b> | <b>213</b> |
| Schritt 1 - Versionsgeschichte .....          | 214        |

# 1. Einleitung

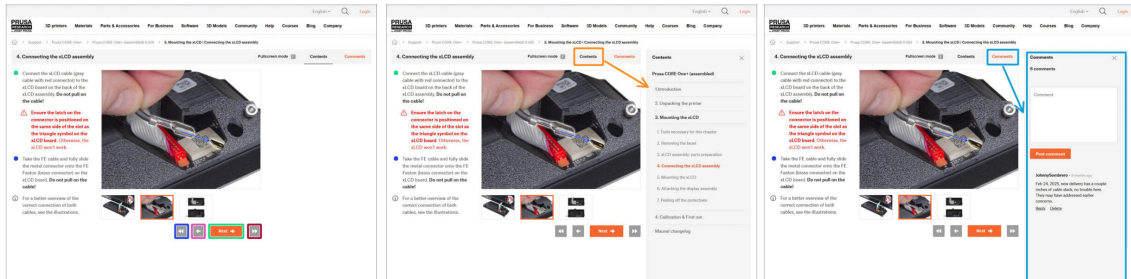


## SCHRITT 1 Vorbereiten des Bausatzes



- Willkommen bei der Anleitung zum Zusammenbau und zur Einrichtung Ihres Prusa CORE One+ Bausatzes.** Befolgen Sie diese Schritte, um sicherzustellen, dass Ihr Drucker für den ersten Druck bereit ist.
- Please prepare the kit received from Prusa Research.
- No soldering or wire crimping is required.

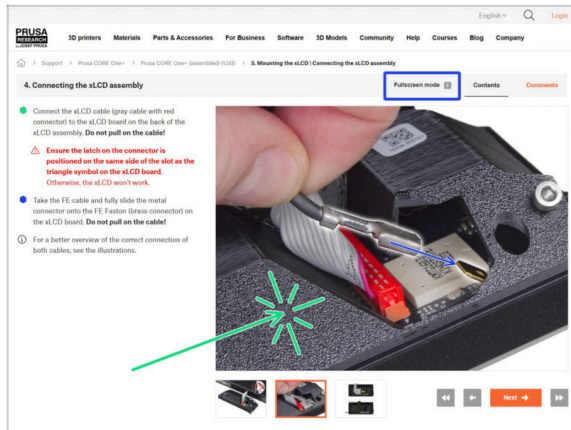
## SCHRITT 2 How to navigate through the manual



- Use the graphical navigation buttons in the bottom right corner or the arrow keys on your keyboard:
  - Play backward button / Up arrow key** - Moves to the previous step.
  - Left arrow button / Left arrow key** - Moves to the previous image, or to the previous step if it's the first image in the step.
  - Next button / Right arrow key** - Moves to the next image, or to the next step if it's the last image in the step.
  - Play forward (Next) button / Down arrow key** - Moves to the next step.
- Click on **Contents** to expand the full list of steps in this guide. This allows you to jump to any step regardless of the sequence.
- Click on **Comments** to open the discussion for a specific step and leave your feedback.

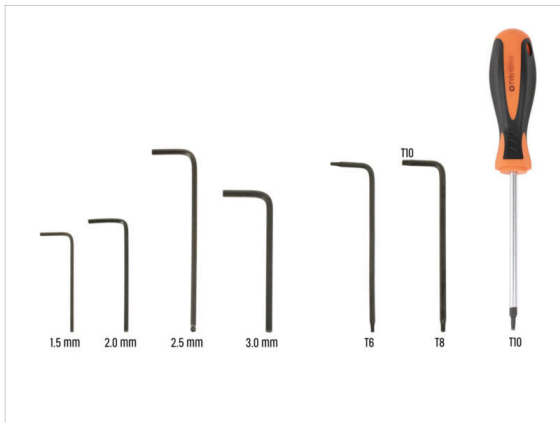
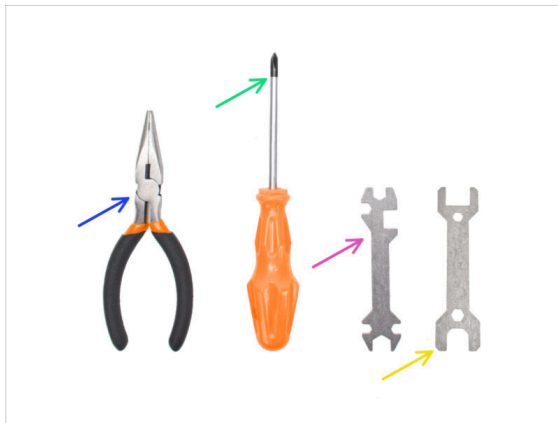


## SCHRITT 3 View high resolution images



- When you browse the guide on [help.prusa3d.com](https://help.prusa3d.com), you can view the original images in high resolution for clarity.
- Just click on the image to open it in high resolution for a detailed view.
- Click on **Fullscreen mode** or press the F key to maximize your screen space and focus entirely on the instructions.

## SCHRITT 4 All the required tools are included



### ■ Das Werkzeugpaket umfasst:

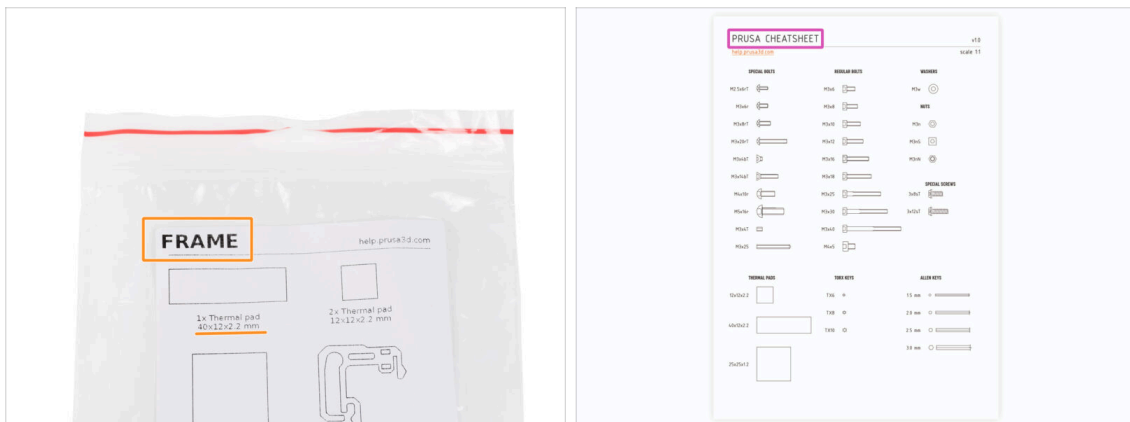
- i Tools can be found in *Electronics & fasteners* package.
- Spitzzange (1x)
- Philips (PH2) screwdriver (1x)
- Universal-Schlüssel (1x)
- Wrench size 13-16 mm (1x)
- Sechskantschlüssel Set
- Innensechsrund Schlüsselset

## SCHRITT 5 Additional utilities for this guide



- ◆ **Some steps in the manual will require commonly available items to help you with assembly (not included in the kit):**
- ◆ Paper towels or a piece of cloth - For wiping preservative oil from the smooth rods and linear rail.
- ◆ Scissors - For cutting a bag with bearings
- ◆ Lubricant (included in the kit) - For lubricating the planetary gear in the Nextruder (print head).

## SCHRITT 6 Abbildungen der Bauteile



- ◆ All the boxes and bags including parts for the build are labeled.
- ◆ The labels include the list of contents and part count.
- ◆ You can download a **Cheatsheet** with 1:1 fastener drawings from our site [prusa.io/core-one-cheatsheet](https://prusa.io/core-one-cheatsheet). Print it at 100 %, don't rescale it, otherwise, it won't work.
- i For PRUSA veterans: Fasteners are divided into individual bags according to its type. Not into packages for individual chapters, as it was with previous printers.
- P The instructions will specify the package for each part, with the exception of fasteners, which are always located in the Fasteners package.

## SCHRITT 7 Ersatzteilbeutel



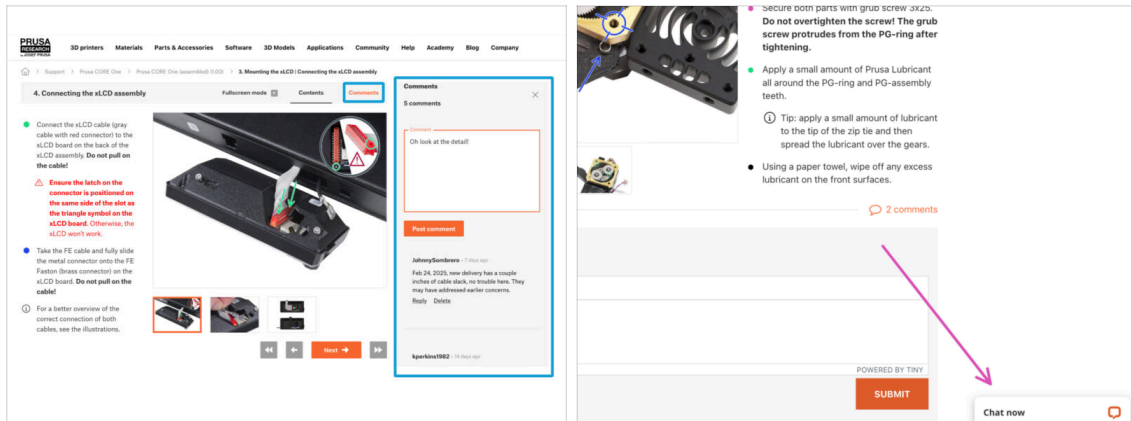
- ◆ Spare fasteners are included in each bag of fasteners. The amount of spare is always included in the total number shown on the bag.
- ◆ Similarly, some parts may include one extra piece in the same bag.

## SCHRITT 8 Printed parts - versioning



- ◆ Die meisten der 3D gedruckten Teile des Prusa CORE One+ sind mit ihrer Version gekennzeichnet.
- ◆ **E, F and Gx series** (e.g. E1) - those parts are printed on Prusa Research farm and are distributed with the kit.
- ◆ **R, S and Tx series** (e.g. R1) - those parts are available for download at [printables.com](https://www.printables.com). They are identical to the factory ones.
- ◆ The numbers indicate minor revisions that usually involve small design tweaks. A different label in the manual (e.g., a different version shown in photos) does not affect the assembly – all versions are fully compatible.
- ◆ However, if a specific revision requires a different assembly procedure, we will clearly highlight it in the manual and explain the differences.
- ① In case you have issues while assembling the printer with the certain printed part, please try to find this label and tell it to our support team.

## SCHRITT 9 We are here for you!



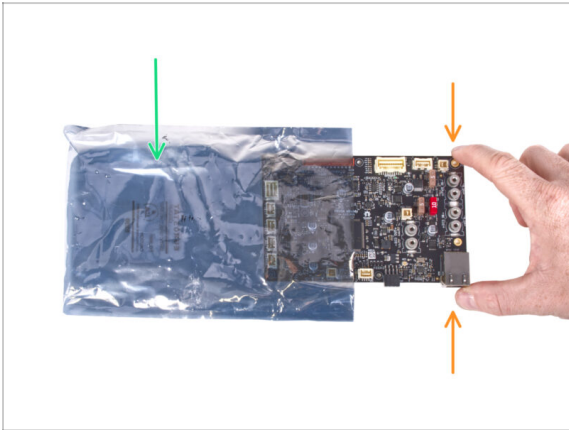
- Lost in the instructions, missing screw or cracked printed part? **Let us know!**
- You can contact us using the following channels:
  - Using comments under each step.
  - Using our 24/7 live chat here at [help.prusa3d.com](https://help.prusa3d.com)
  - Writing an email to [info@prusa3d.com](mailto:info@prusa3d.com)

## SCHRITT 10 Pro tip: inserting the nuts



- 3D printed parts are very precise, however, there still might be a tolerance in the printed part and the same goes for the size of the nut.
- Therefore it might happen, that the nut won't fit easily in or might be falling out. Let's see, how to fix it:
  - **Nut won't fit in:** use a screw with a thread along its entire length (typically: M3x10, M3x18) and screw it from the opposite side of the opening. While tightening the screw, the nut will be pulled in. Remove the screw afterwards.
  - **Nut keeps falling out:** Use a piece of tape to fix the nut temporarily in place, as soon as you insert the screw in, you can remove the tape. *Using glue isn't recommended as it can partly reach into the thread and you won't be able to tighten the screw properly.*
- Every time we recommend using the "screw pulling technique", you will be reminded with Joe's avatar ;)
- ⓘ Parts in the pictures are used as an example.

## SCHRITT 11 Wichtig: Schutz der Elektronik



**⚠ WARNING:** Make sure to **protect the electronics against electrostatic discharge (ESD)**. Always unpack the electronics right before you need them!

Here are some **tips to prevent damage to the electronics:**

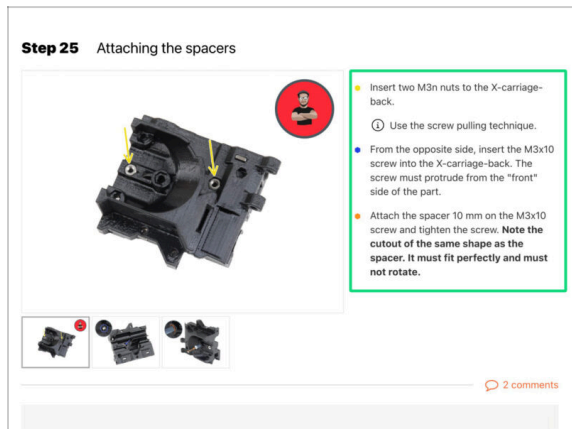
- **Keep the electronics inside the ESD bag** right until you are asked to install them.
- **Always touch the sides of the board only** while handling it. Avoid touching the components on the surface.
- **Before you touch the electronics** use any conductive (metal) structure nearby to neutralize the possible static charge from your hands.
- Be extra cautious **in rooms with carpets**, which are often a source of electrostatic energy.
- Clothes made of wool or certain synthetic fabrics can easily gather static electricity too. It is safer to wear cotton clothing for the assembly.

## SCHRITT 12 Belohnen Sie sich selbst



- ◆ Der Aufbau des CORE One+ ist eine lohnende Erfahrung. Belohnen Sie sich nach jedem abgeschlossenen Kapitel. **Dafür gibt es eine Tüte Haribo-Bären in der Verpackung!**
- ⚠ **The biggest issue from our experience** (MK4S, MK4, MK3S+, MK3S, MK3, MK2S, ...) is inadequate bear consumption. Many of you didn't have enough gummy bears for all chapters, some even ate them all before they started!
- ◆ After years of thorough scientific research, we came to a solution => At the end of each chapter, you will be told a specific amount of bears to consume.
- ◆ Eating an incorrect amount than prescribed in the manual might lead to a sudden boost of energy. Please consult a professional in the closest candy store.
- ⚠ **Hide the Haribo for now!** From our experience, an unattended bag with sweets will suddenly disappear. Confirmed by multiple cases all around the World.

## SCHRITT 13 How to successfully finish the assembly

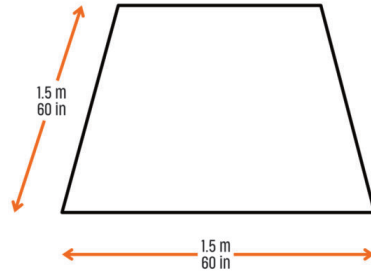


**⚠ Um den CORE+ One Bausatz erfolgreich fertigzustellen, beachten Sie bitte all diese Punkte:**

- **Always read all the instructions at the current step first**, it will help you to understand what you need to do. Don't cut or trim unless you are told to!!!
- **Don't follow pictures only!** It is not enough, the written instructions are as brief as they could be. **Read them!**
- Read the comments from the other users, they are great sources of ideas. We read them too and based on your feedback improved the manual and the entire assembly.
- **Use a reasonable force**, the printed parts are tough, but not unbreakable. If it doesn't fit, check your approach twice.
- **Eat the gummy bears as instructed!** Disobedience won't be tolerated :D
- **Most importantly: Enjoy the build, and have fun.** Cooperate with your kids, friends or partners.



## SCHRITT 14 Ihren Arbeitsplatz vorbereiten



- **Tidy up your desk!** Tidying up decreases the probability of losing small parts.
- **Clear your workspace.** Make sure you have enough room. A nice clear flat workbench will get you the results you are aiming for.
- **Let there be light!** Make sure you are in a well-lit environment. Another lamp or even an extra flashlight will probably come in handy.
- Prepare something to contain the plastic bags and the removed packing materials so you can recycle them afterwards. Make sure there are no important parts being discarded.
- A minimum working space of  $1.5 \times 1.5$  meters ( $60 \times 60$  inches) is recommended.
  - ⚠ **It's highly recommended to place a soft pad on your workbench. Some sheet metal parts have sharp edges that could scratch the surface.**
  - ⓘ You can use a piece of cardboard as a protective pad.
- OK, we are ready. Let's start! Go to chapter **2. Frame assembly**

## SCHRITT 15 Installing the add-ons and upgrades

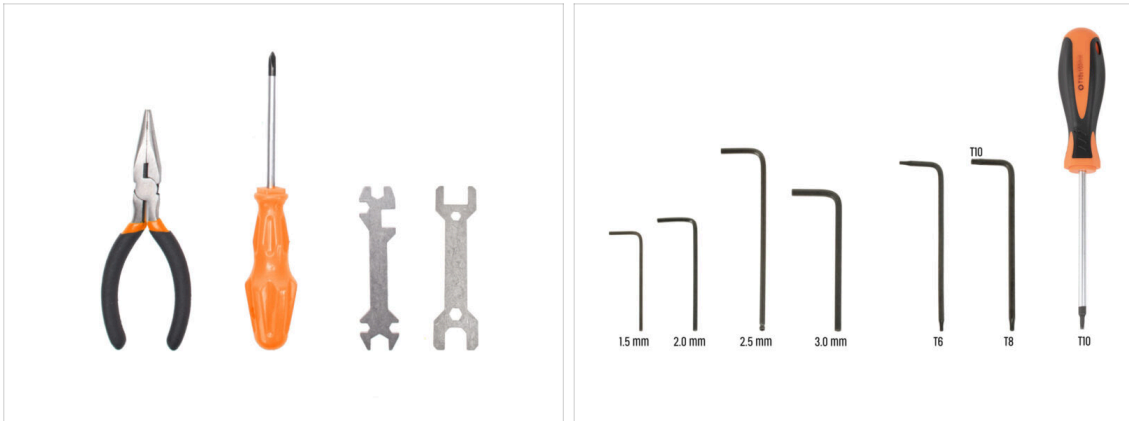


- ◆ This information applies to users planning to install upgrades and add-ons, such as Buddy Camera, an advanced filtration system, and MMU3 in the future.
- ① **Before installing any add-ons and upgrades, it is essential to completely assemble and test your printer.** Once the printer is fully functional, follow the separate MMU3 or add-on assembly manuals to modify the printer for installation.

## 2. Zusammenbau der Basis

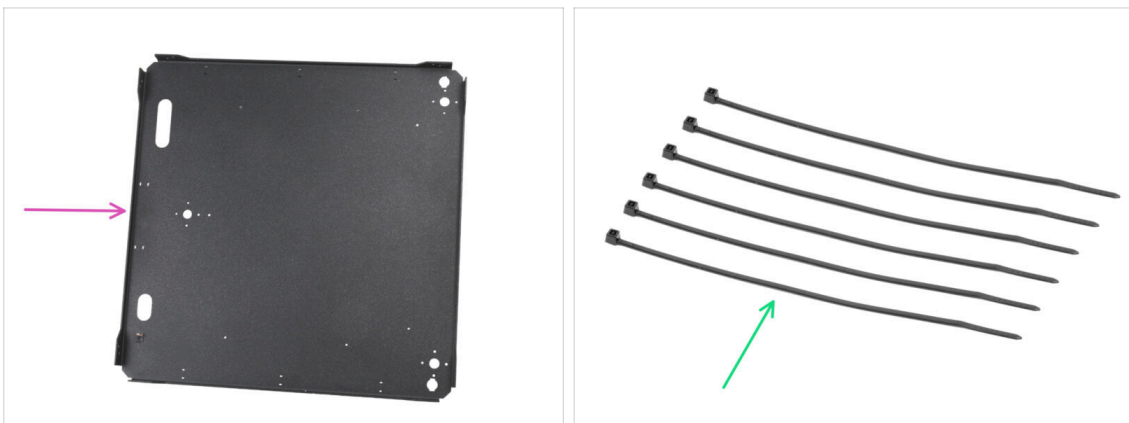


## SCHRITT 1 Tools necessary for this chapter



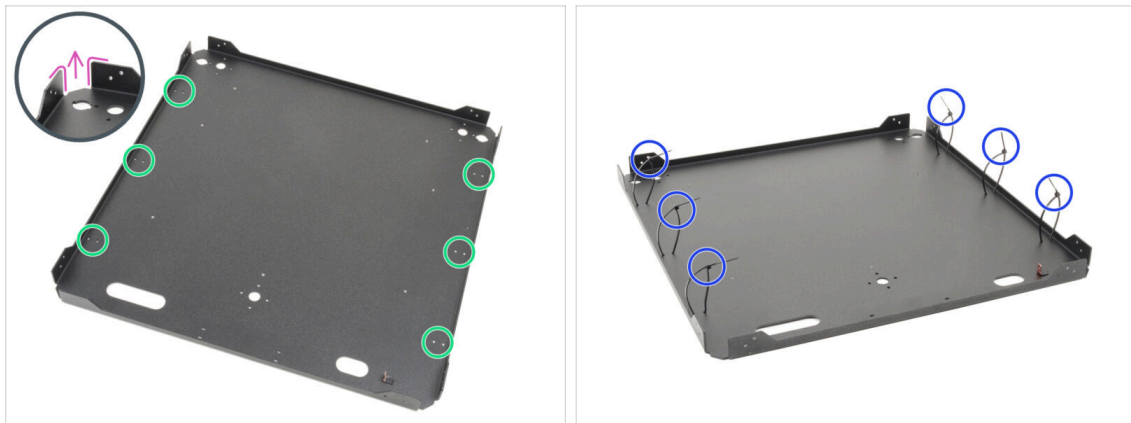
- For this chapter, please prepare:
- Schraubenschlüssel 13-16
- 2,5mm Innensechskantschlüssel
- T10 torx key / T10 torx screwdriver

## SCHRITT 2 Base assembly: parts preparation



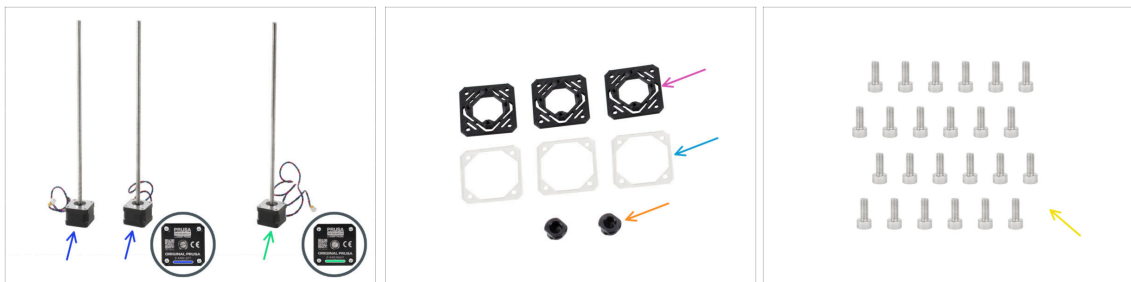
- For the following steps, please prepare:
- Bottom panel (1x) found in the Metal parts 1/3 package
- Zip tie (6x) found in the Electronics & Fasteners package

### SCHRITT 3 Inserting the zip ties



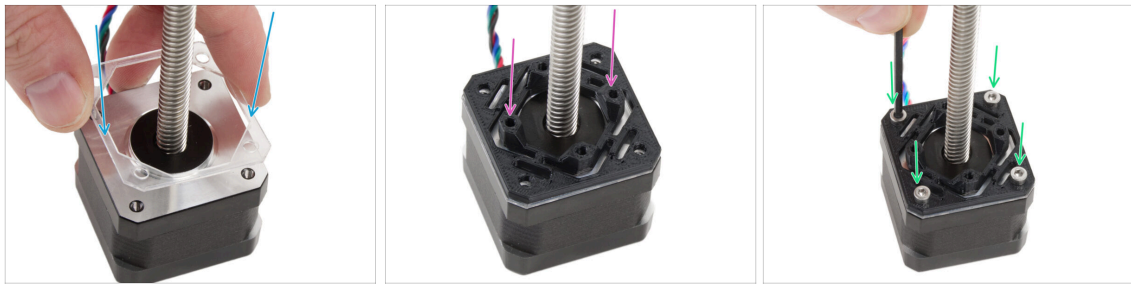
- ✿ Turn the bottom panel so that the bends of the plate are facing upwards.
- ✿ Note the twin holes for the zip ties around the perimeter of the panel.
- ✿ Insert six zip ties through the holes, placing them along both sides and partially tightening them, engaging only the first few teeth.
- ⚠ **Do not fully tighten them yet, as we will route cables through them later.**
- ⓘ Hinweis: Die Ausrichtung der Kabelbinderköpfe (innerhalb oder außerhalb des Blechs) spielt keine Rolle.

### SCHRITT 4 Base assembly: parts preparation



- ✿ **For the following steps, please prepare:**
- ✿ Z-axis left motor (2x) *found in the Motor set box.*
- ⚠ **One Z-axis left motor is packed separately in the *Electronics & chamber parts* package.**
- ⓘ For now, keep the trapezoidal nuts in the motor package.
- ✿ Z-Achse rechter Motor (1x) *findet sich im Motor set Paket*
- ✿ Z-motor-mount (3x) *found in the Printed parts package*
- ✿ Motor washer (3x) *found in the Electronics & Chamber parts package*
- ✿ Z-rod-mount (2x) *found in the Printed parts package*
- ✿ Schraube M3x8 (24x)

## SCHRITT 5 Installing the motor mounts



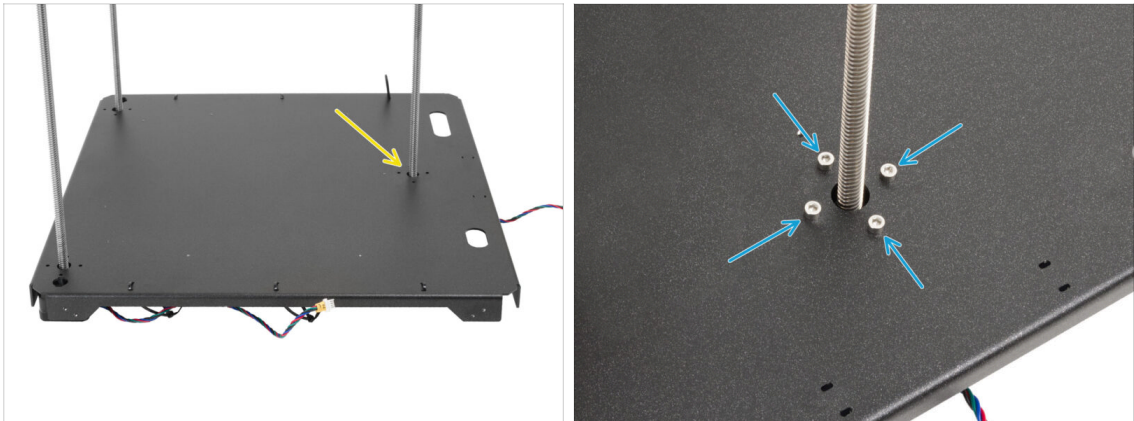
- Attach one transparent motor washer pad on each Z motor.
- Place one Z-motor-mount on each motor washer. **The protrusions on the part must be facing upwards.**
- Align holes with all the parts.
- Join all parts together with four M3x8 screws.
- Gehen Sie bei allen Motoren auf die gleiche Weise vor.

## SCHRITT 6 Installing the rear motor



- Turn the bottom panel upside down.
- Locate the circle hole in the middle of the panel back side.
- Take the **Z motor right** - the motor with the longest cable. Labeled ZR on the cable.
- Push the motor threaded rod through the panel and align the holes in the panel with the holes in the motor assembly.
- ⚠ **Das Motorkabel muss nach außen (zu Ihnen hin) zeigen.**
- Push both Z-axis motor left through the bottom panel.
- **The motor cables must point to the rear motor side.**
- ❗ In the following instructions, we will refer to the **front** and **rear** sides of the assembly. The **front side has TWO motors**, while the **rear side has ONE motor**. We will remind you along the way, but it's good to keep this in mind :).

## SCHRITT 7 Securing the rear motor



- ✦ Begin securing the motors, starting from the rear motor.
- ✦ Insert and fully tighten four M3x8 screws into the **rear motor**.
  - ⚠ Make sure the screws stay straight and do not tilt as you tighten them.
  - ⚠ Do not overtighten the screws, as they thread directly into the plastic part. For a final tightening, use the shorter part of the key as a handle to apply the correct amount of torque.

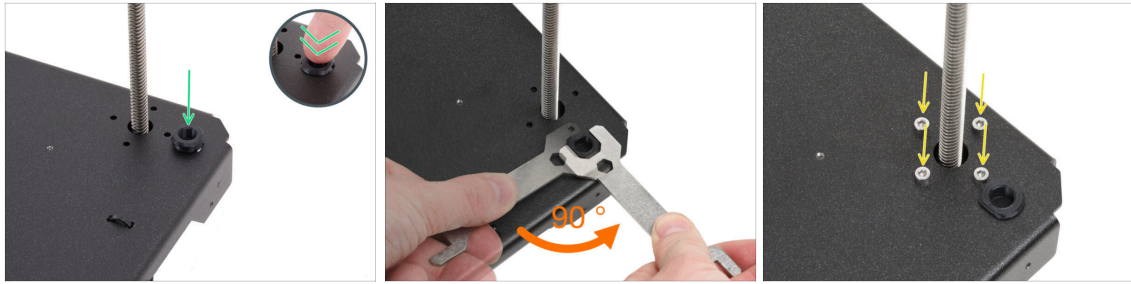
## SCHRITT 8 Installing the front motor right



- ✦ First, insert the rod-mount into the opening next to the front right Z motor.
- ✦ Use the 13-16 wrench to rotate the rod mount 90 degrees, locking it into place.
- ✦ Secure the motor using four M3x8 screws. Tighten them completely.
  - ⚠ Make sure the screws stay straight and do not tilt as you tighten them.



## SCHRITT 9 Installing the front motor left



- Let's move to the front left motor (from the front view).
- ⚠ Ensure, the motor cable still points to the rear side.
- Insert the rod-mount into the opening next to the front right Z motor.
- Use the 13-16 wrench to rotate the rod mount 90 degrees, locking it into place.
- Befestigen Sie den Motor mit vier Schrauben M3x8. Ziehen Sie sie vollständig fest.
- ⚠ Make sure the screws stay straight and do not tilt as you tighten them.
- Place the whole assembly aside for a while.

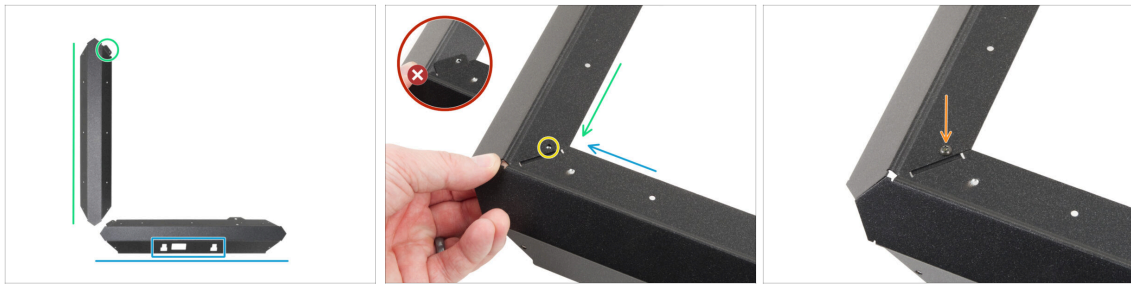
## SCHRITT 10 Bottom frame: parts preparation



- For the following steps, please prepare:
- ⚠ Be very careful when handling sharp sheet metal parts to avoid injury or damage.
- ⚠ Metal sheet profiles may look identical at first glance, but there are some differences. DOUBLE-CHECK to pick the correct ones.
- Front profile (1x) **notice the cutouts** - found in the Metal parts 1/3 package
- Hinteres Profil (1x) **mit zwei Löchern auf der flachen Seite** - findet sich in der Verpackung der Metallteile 1/3
- Universal profile (2x) **no holes on the flat side** - found in the Metal parts 1/3 package
- Spacer pin (2x) found in the Electronics & Fasteners package
- Schraube M3x4rT (4x)



## SCHRITT 11 Assembling the bottom profile: front + left



 Be very careful when handling sharp sheet metal parts to avoid injury or damage.

-  Place the front profile according to the picture. The cutouts must be facing you.
-  Place one of the universal profiles on the left side. Orient the part according to the picture. **Use the flange as a guide.**
-  Attach the two profiles together.
-  The flange of the front plate (blue arrow) must be inserted **under** the left universal profile (green arrow), not on top of it.
-  Align the holes in both parts.
-  Join both parts together with the M3x4rT screw.

## SCHRITT 12 Assembling the bottom profile: left + rear



-  According to the picture, place the rear profile (with two holes on the flat side) to the universal left profile. Orient the part according to the picture. **Use the flange as a guide.**
-  Join the rear profile with the universal left profile together.
-  Make sure the flange is under the rear profile, not on top.
-  Align the holes in both parts.
-  Join both parts together with the M3x4rT screw.

### SCHRITT 13 Assembling the bottom profile: right



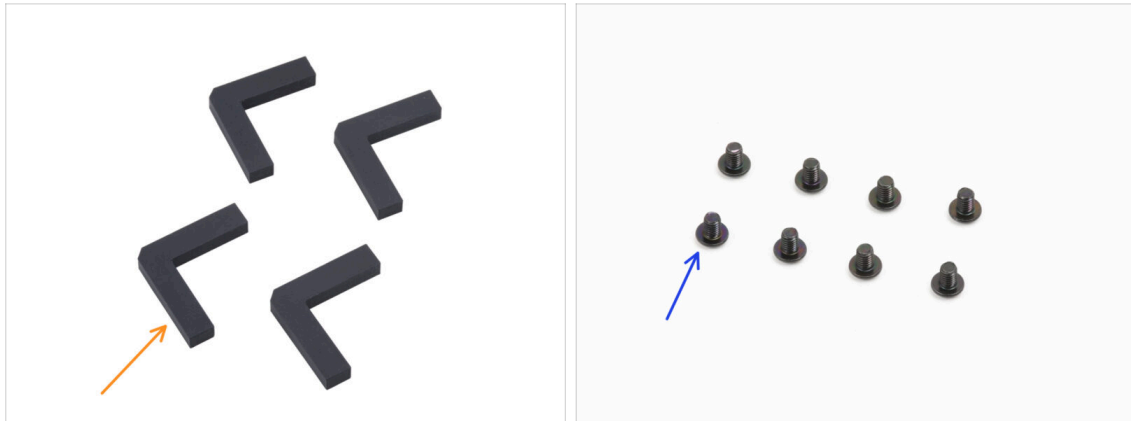
- Attach the universal right profile between the rear and front profile. **Ensure that:**
  - The **rear** end is **above** the rear profile flange.
  - The **front** flange is inserted **under** the front profile.
- Secure the left profile with M3x4rT on both ends.

### SCHRITT 14 Inserting the spacer pins



- Insert the spacer pin into the hole in the front profile protrusion.
- Push firmly on the spacer pin so that it fits perfectly into the hole.
- Use the same procedure for the second spacer pin.

## SCHRITT 15 Anti-vibration feet: parts preparation



● For the following steps, please prepare:

- Anti-vibration foot (4x) found in the *Electronics & Chamber parts package*
- Schraube M3x4rT (8x)

## SCHRITT 16 Installing the anti-vibration feet



- Place the bottom frame according to the picture. The front profile must be facing you.



Before applying the anti-vibration feet, **wipe the metal profiles with isopropyl alcohol** and let them dry. This ensures proper adhesion.

- Peel off the protective layer from all anti-vibration feet.

⚠ Ziehen Sie vorsichtig **nur die Schutzfolie** von jedem Antivibrationsfuß ab. Wenn sich die klebende Schicht zusammen mit der Folie abzulösen beginnt, halten Sie an und ziehen Sie sie an einer anderen Ecke ab.

- Stick one anti-vibration foot in each corner of the frame. Align it with the outer edge of the flat side of the profile.

## SCHRITT 17 Installing the bottom frame



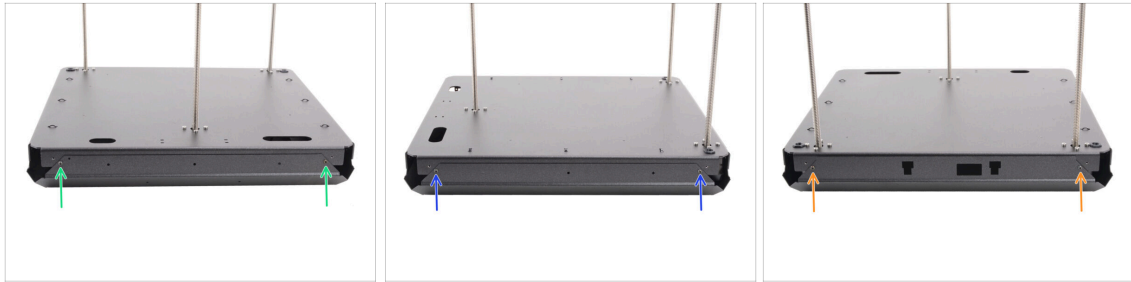
- 🔵 Turn the bottom frame upside down. **The front profile must be facing you.**
- 🟡 Attach the rear side of the bottom panel assembly to the rear side of the bottom frame.
- 🟠 Ensure that the front side of the bottom panel assembly (with two motors) aligns with the front profile of the bottom frame (with cutouts).
- 🟣 Place all the motor cables inside the center area of the bottom frame to prevent pinching.
- 🟢 Slowly and carefully lower the bottom panel assembly into the bottom profile.
  - ⬛ Ensure the assembly fits completely **inside the bottom profile.**
  - ⬛ Make sure no part of the bottom panel assembly extends outside the bottom frame
- ⚠️ **Double-check that no cables are pinched.**

## SCHRITT 18 Mounting the bottom frame: right side



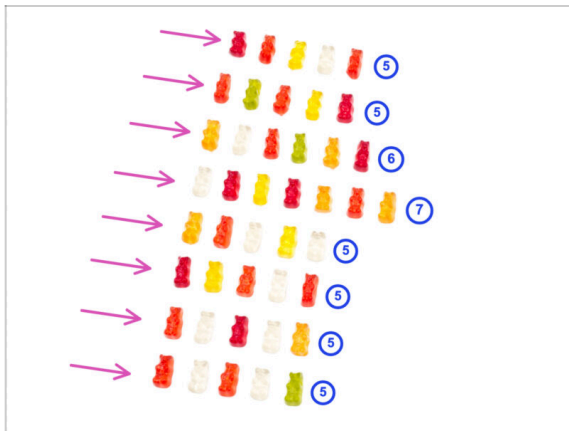
- ⬛ Focus on the front right corner and right side.
- 🟡 Slightly lift one of the corners of the bottom panel assembly.
- 🟢 Align the threaded hole in the bottom panel with the hole in the profile.
- 🟢 Verbinden Sie beide Teile mit der Schraube M3x4rT.
- ⬛ Move to the rear corner of the right side.
- 🟣 Align the holes in the base and the profile and secure it with the M3x4rT screw.

## SCHRITT 19 Mounting the bottom frame: rear + left + front



- Move to the rear side of the assembly (side with one Z motor).
- Align holes in the base assembly and the profile and secure it with two M3x4rT screws.
- Focus on the left side of the assembly.
- Richten Sie die Löcher in der Basisbaugruppe und dem Profil aus und befestigen Sie sie mit zwei M3x4rT Schrauben.
- Turn the assembly with the front profile facing you (profile with cutouts).
- Align holes in the base assembly with the profile and secure them using two M3x4rT screws.

## SCHRITT 20 Haribo Zeit!



- It's time to reward yourself!
- Stack your gummy bears in eight rows.
- Arrange the number of gummy bears in each row as shown in the picture.
- ① Wenn Sie in der letzten Reihe nicht die exakte Anzahl erhalten, empfehlen wir Ihnen, den nächsten Süßwarenladen aufzusuchen und die fehlenden Exemplare zu kaufen.
- Eat the first row.

## SCHRITT 21 Abgeschlossen

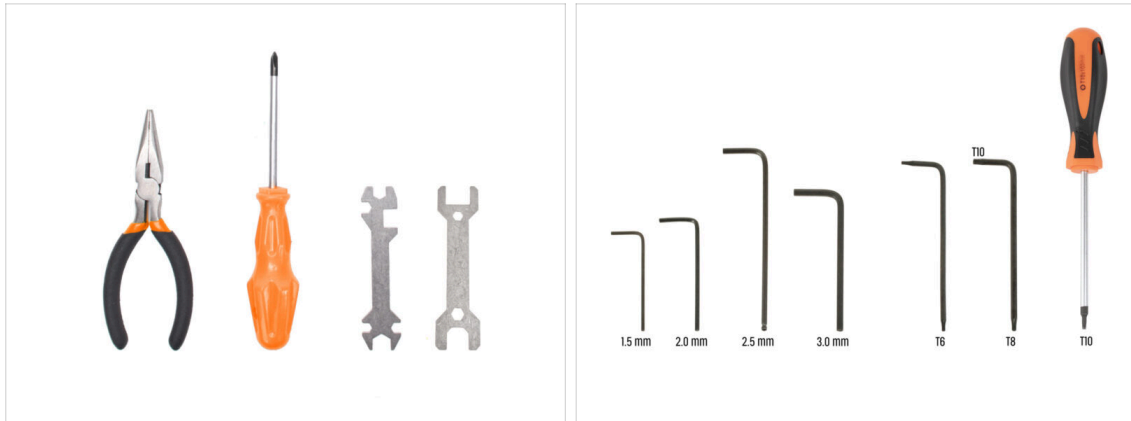


- ◆ **Congratulations!** You just assembled the **base assembly**.
- ◆ Set the assembly aside for now and let's move to the next chapter.

### 3. Rückseite Montage



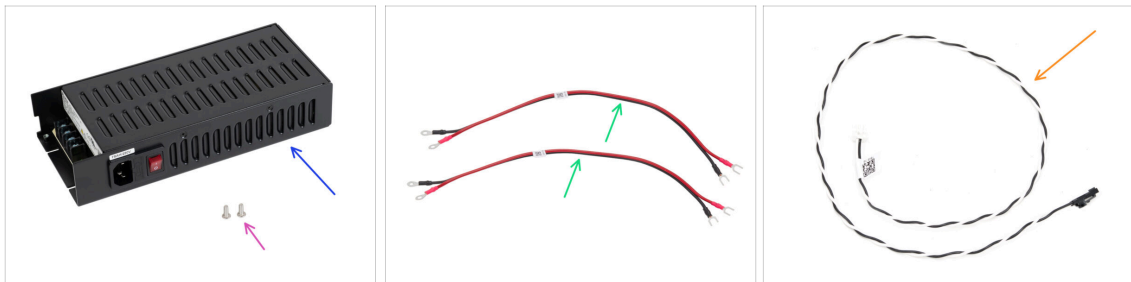
## SCHRITT 1 Tools necessary for this chapter



● **For this chapter, please prepare:**

- Phillips Schraubendreher PH2
- Spitzzange
- 2,5mm Innensechskantschlüssel
- T10 Schraubendreher / Schlüssel

## SCHRITT 2 PSU assembly: parts preparation

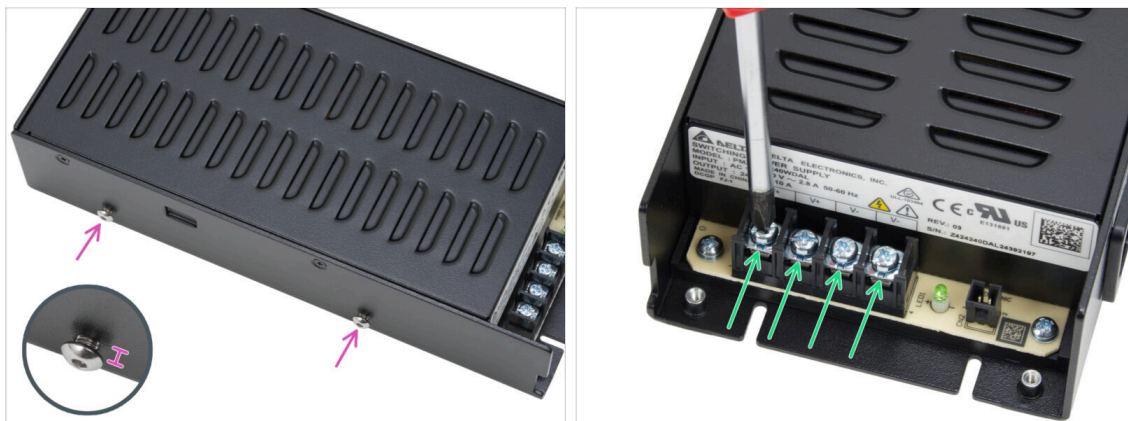


● **For the following steps, please prepare:**

- Delta PSU 240 W 24 V (1x) power supply
- M4x6r screw (2x) from the Fasteners 3/3 package
- xBuddy Stromkabel (2x) finden Sie im Electronics Paket
- Power panic cable (1x) found in the Electronics package

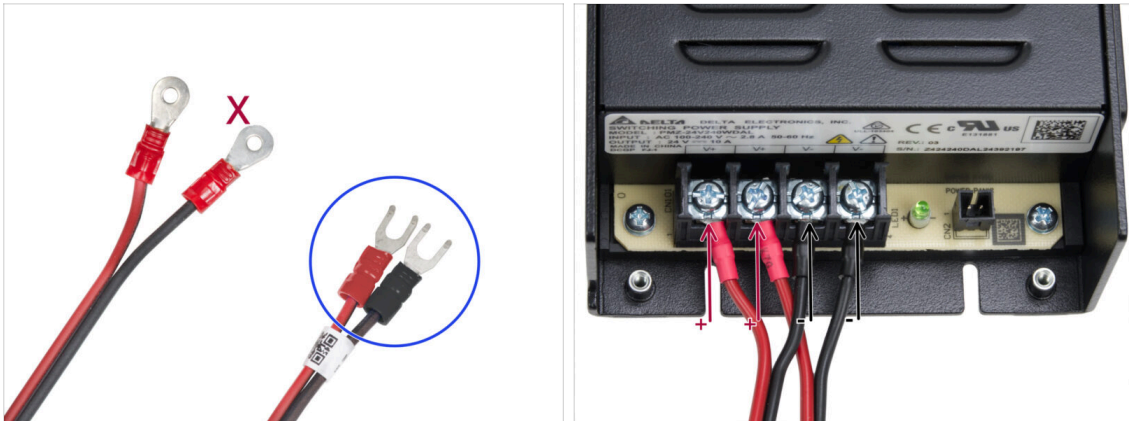


## SCHRITT 3 Vorbereiten des Netzteils



- Insert two M4x6r screws into the left side of the PSU. **Do not tighten them completely.** Leave at least a 4 mm (0.16 in) gap between the screw head and the PSU.
- Slightly loosen all four power terminal screws on the PSU. **Do not remove them.** 3-4 turns are enough.

## SCHRITT 4 Stromkabel Info



- i** In the following steps, we will be connecting the power cables one by one. The terminal screws are installed on the PSU already. Loosen them but **don't remove them completely** so they don't get mixed up with the other type of screws used on the xBuddy board side of the cable. Each of the two power cables has two leads. One has a prevailing **red color = positive / +**  
 One has a prevailing **black color = negative / -**
- Note that the power cables have different connectors on each end. For now, prepare the U-shaped connectors (crimping tube color may vary).
- **Note that the polarity of the terminals on the PSU is:**

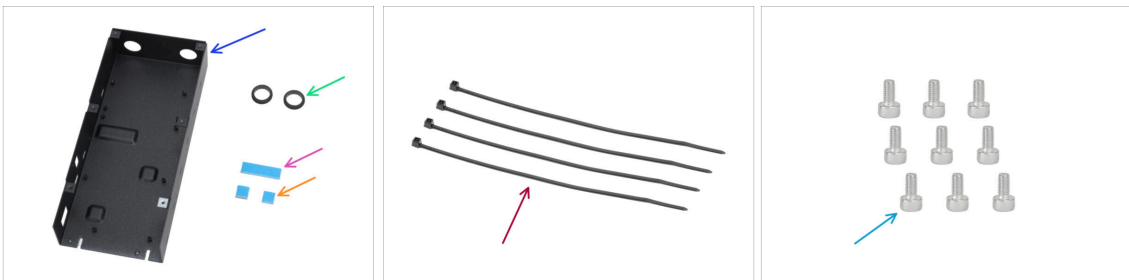
  - Positiv (V+)
  - Positiv (V+)
  - Negativ (V-)
  - Negativ (V-)
- i** The red cable (positive) may have a black stripe on it. Similarly, the black cable (negative) can have a red stripe on it.
- ⚠** **Do not connect any cables yet, wait until you have been prompted.**

## SCHRITT 5 Anschließen des Netzteils



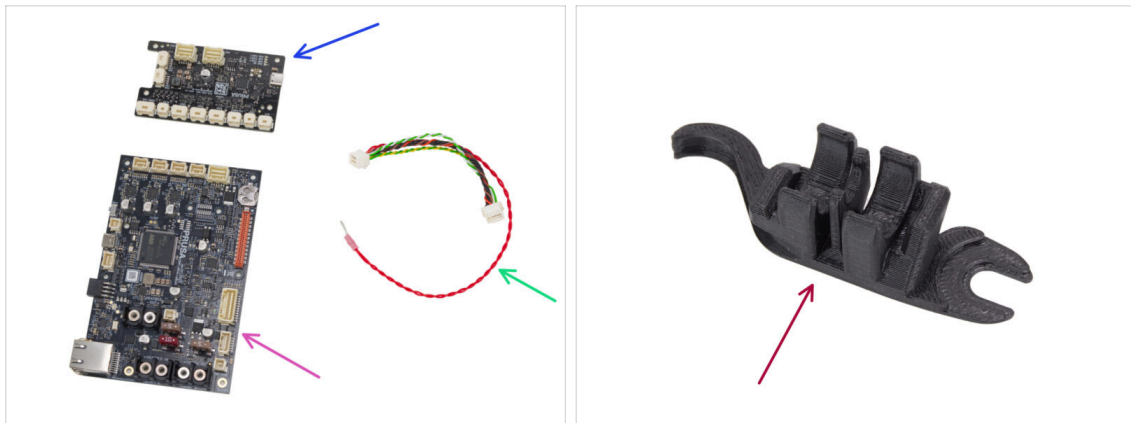
- Take the RED wire and slide the fork connector all the way into the first (positive) terminal from the left on the bottom of the PSU. Make sure the steel washer is above the "fork" connector.
- Tighten the terminal screw firmly.
- Use the same procedure to connect the second red wire to the second terminal slot from the left.
- Verbinden Sie die beiden schwarzen Adern auf die gleiche Weise mit dem dritten und vierten Anschluss.
- Plug the power panic cable to the right most connector.
- Put the assembly aside for a while.

## SCHRITT 6 xBuddy: parts preparation I.



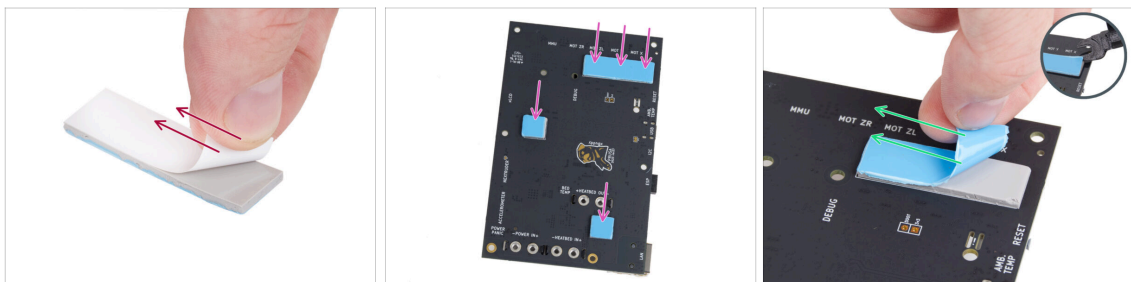
- **For the following steps, please prepare:**
- CORE One xBuddy box (1x) *found in the Metal parts 3/3 package*
- Grommet 19/16 mm (2x) *found in the Electronics & Fasteners package*
- Wärmeleitpad 40x12x2,2 mm (1x) *finden Sie in der Packung Electronics & Fasteners*
- Thermal pad 12x12x2.2 mm (2x) *found in the Electronics & Fasteners package*
- Kabelbinder (4x)
- Schraube M3x6 (9x)
- ⓘ The list continues in the next step...

## SCHRITT 7 xBuddy: parts preparation II.



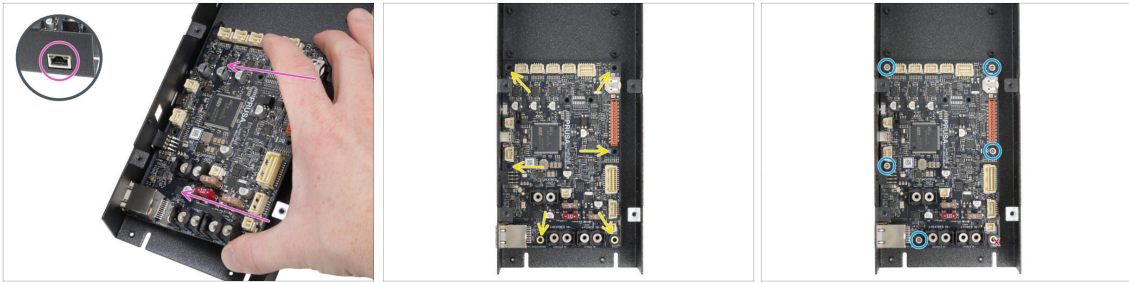
- xBuddy extension board (1x) found in the Electronics & chamber package
- xBuddy board (1x) found in the Electronics package
- xBuddy extension cable (1x) found in the Electronics & Fasteners package
- Assembly-multi-tool (1x) im Paket „Printed parts“ enthalten

## SCHRITT 8 Applying the thermal pads



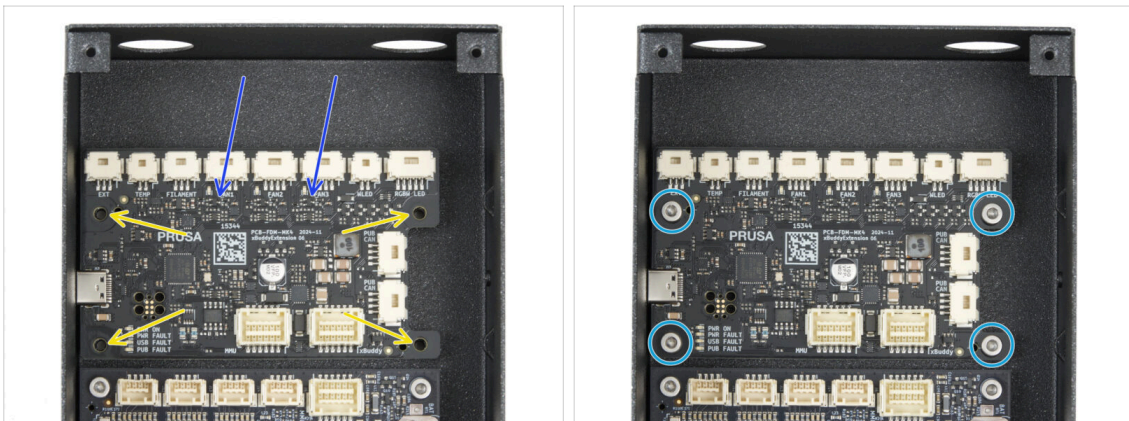
- Peel off the white protective layer from all thermal pads.
- ⚠ **Always touch the sides of the electronics board while manipulating it. Avoid touching the chips, capacitors and other parts of the electronics.**
- Attach the pads onto the back of the xBuddy board. There are markings that indicate the correct size and positions.
- ⓘ Die Oberfläche, auf der die Pads haften, muss von Fett gereinigt werden. Dadurch wird eine bessere Haftung gewährleistet.
- ⚠ **For the protection of the board's electronic components, we strongly recommend placing the xBuddy board on the soft pad. You can use the original xBuddy bubble wrap package.**
- Peel off the blue protective layer from all thermal pads.
- ⓘ Pro tip: If the edge of the layer is difficult to lift, you can use the thin side of the Assembly-multi-tool to help separate the protective layer.

## SCHRITT 9 Installieren des xBuddy



- ⚠ **Always touch the sides of the electronics board while manipulating it. Avoid touching the chips, capacitors and other parts of the electronics.**
- ✿ Insert the xBuddy board to the xBuddy box.
  - ⬛ Make sure the Ethernet connector is properly inserted into the hole in the xBuddy box.
- ✿ **Bevor Sie sie vollständig befestigen, zentrieren Sie die Löcher in der Platine mit den Löchern (Säulen) in der xBuddy-Box.**
- ⬢ Fix the position of the xBuddy board by inserting five M3x6 screws. Do not fully tighten the screws. A few turns are enough for now.
  - ⚠ **Put aside your instinct and leave the hole on the bottom right empty.**
- ⬛ **Fully tighten all five screws. But very carefully, otherwise you can damage the electronics board.**

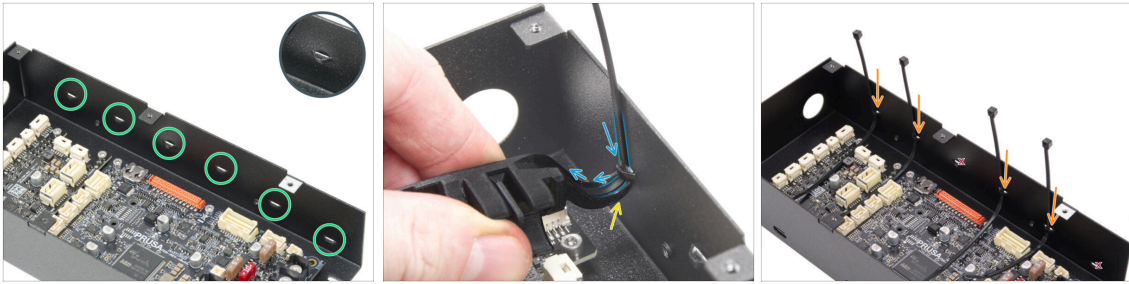
## SCHRITT 10 Installing the xBuddy extension



- ⬢ Insert the xBuddy extension board to the xBuddy box above the xBuddy board. Notice the part orientation.
- ✿ Before fully attaching it completely, center the holes in the board with the holes (columns) in the xBuddy box.
- ⬢ Fix the position of the xBuddy extension board by inserting four M3x6 screws. Tighten them completely.

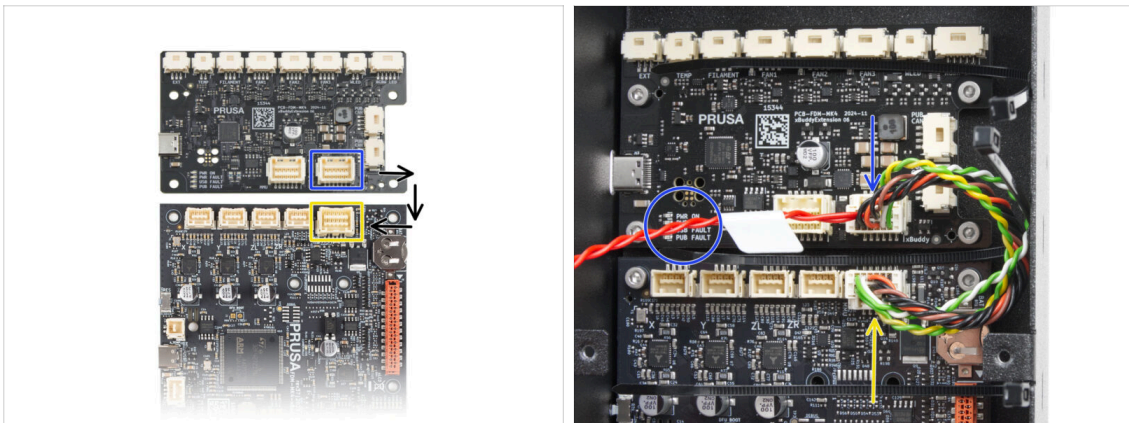


## SCHRITT 11 Installieren der Kabelbinder



- ◆ Take a closer look at to the xBuddy box. There are six perforations on the metal case.
- ⚠ **Proceed very carefully. Be careful not to damage the connectors or capacitors on the xBuddy board.**
- ◆ Attach the hook on the Assembly-multi-tool below the first perforation on the left.
- ◆ Schieben Sie den Kabelbinder durch die Perforation und in das Assembly-multi-tool. Dadurch wird der Kabelbinder in die Elektronikbox geführt.
- ⚠ **Note the correct orientation of the zip tie. The teeth on the zip tie must be on the visible side.**
- ◆ Repeat the process at the indicated perforations.
- ◆ Skip the third and sixth perforations.

## SCHRITT 12 Connecting the xBuddy extension board



- ◆ Plug the xBuddy extension connector with the free red cable to the xBuddy extension board.
- ◆ Leave the red cable free for now.
- ◆ Plug the other end of the xBuddy extension cable to the xBuddy board.

### SCHRITT 13 Inserting grommets: xBuddy box



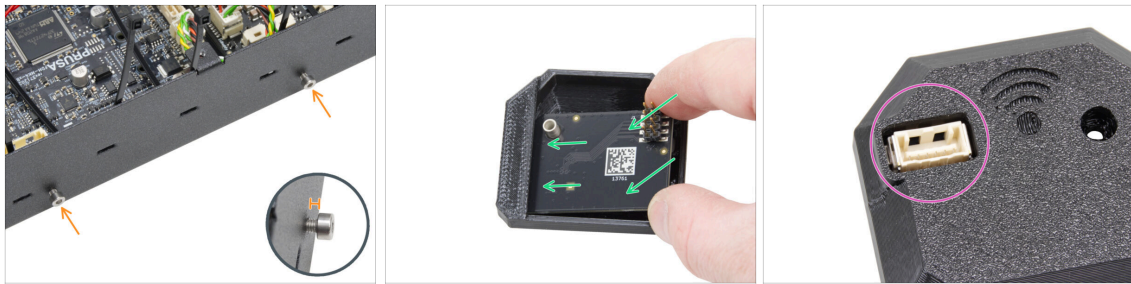
- Insert both grommets into both circle holes in the xBuddy box.
- Gently compress the grommet and fit it into the metal sheet, ensuring the groove locks into place

### SCHRITT 14 WiFi: Vorbereitung der Teile



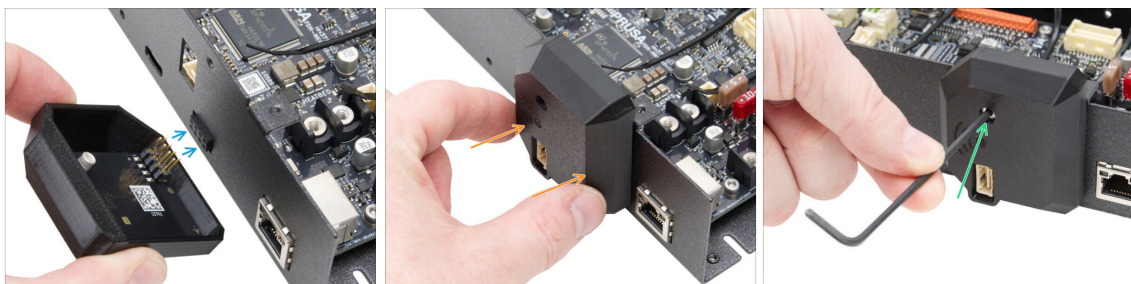
- For the following steps, please prepare:
- ESP-WiFi (1x) found in the Electronics package
- CORE-One-Wifi-cover (1x) found in the Printed parts package
- Schraube M3x12 (1x)
- Schraube M3x6 (2x)

## SCHRITT 15 Zusammenbau des Wi-Fi



- ✚ Insert two M3x6 screw to the xBuddy box assembly from the right side. **Do not tighten them completely.** Leave at least a 4 mm (0.16 in) gap.
- ✚ Insert the ESP-WiFi module into the WiFi-cover, positioning it just below the bridge on the left side.
- ✚ On the other side, ensure the connector fits correctly into the hole in the cover.

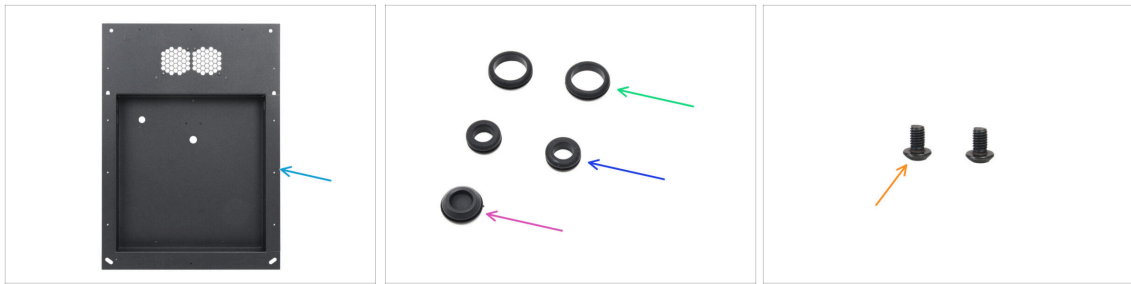
## SCHRITT 16 Installing the Wi-Fi assembly



- ⚠ **Be very careful when handling and connecting the ESP module to avoid bending and damaging the pins.**
- ✚ Take the WiFi cover assembly and connect the ESP module pins to the connector in the xBuddy.
- ✚ Close the WiFi cover carefully, ensuring the pins of the ESP module are properly engaged in the connector on the xBuddy.
- ✚ Befestigen Sie die Abdeckung mit der M3x12 Schraube.
- ⬛ Put the assembly aside for a while.



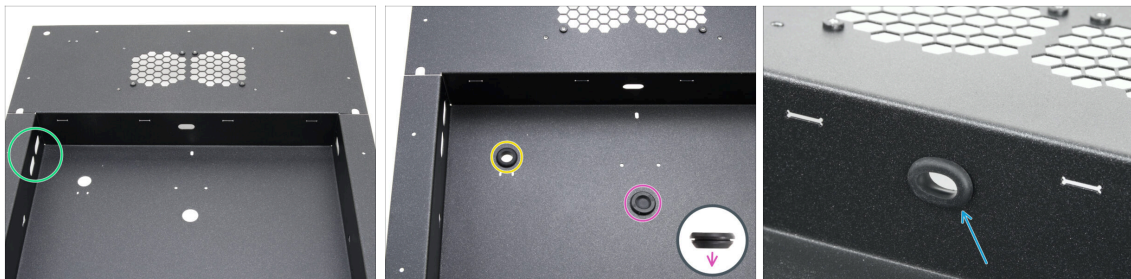
## SCHRITT 17 Back panel: parts preparation



● **For the following steps, please prepare:**

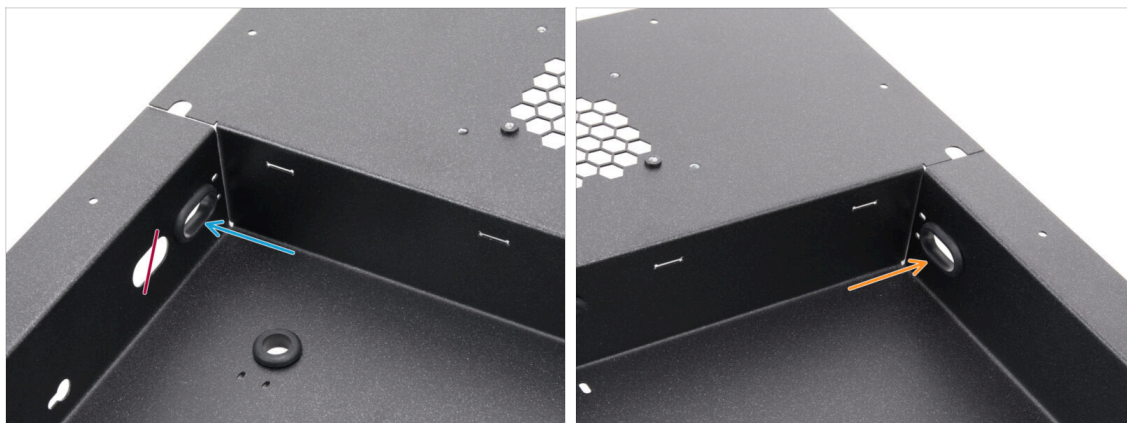
- Back panel (1x) *found in the Metal parts 1/3 package*
- Grommet 19/16 mm (2x) *large one - found in the Electronics & Fasteners package*
- Kabeldurchführung 13,5/10 mm (2x) *die kleineren - finden Sie in der Packung Electronics & Fasteners*
- Sealing plug 15.5 mm (1x) *found in the Electronics & Fasteners package*
- Schraube M3x4rT (2x)

## SCHRITT 18 Installing grommets: back panel top



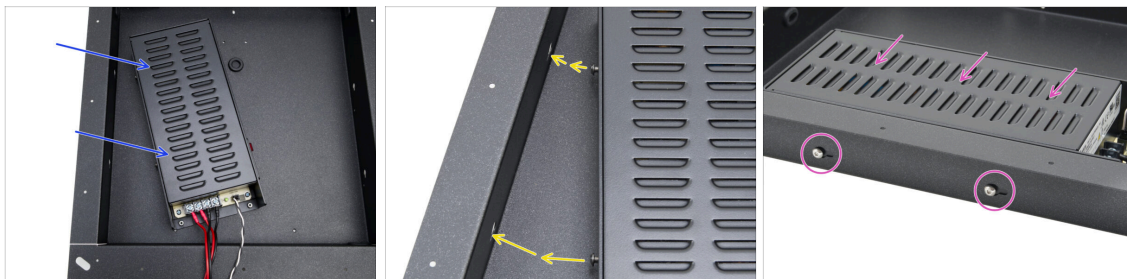
- Position the back panel as shown in the first image. Use the two oval holes as a reference.
- Insert the sealing plug into the center hole.
  - **The sealing plug is not symmetrical.** Insert the side with the smaller diameter facing downward.
- Setzen Sie eine kleine Kabeltülle in das linke Kreisloch ein.
- Insert one small grommet into the oval hole.

## SCHRITT 19 Installing grommets: sides + bottom



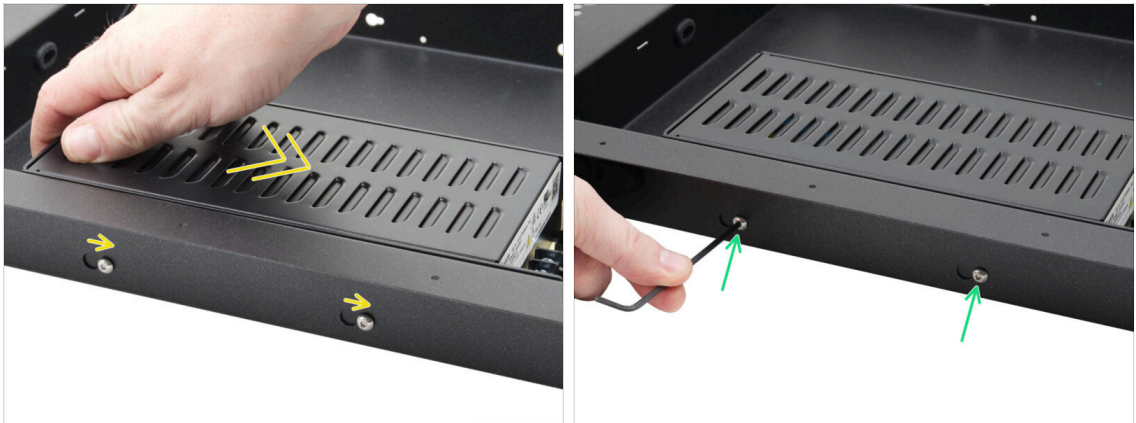
- Focus on the left top side of the back panel and locate two oval holes.
- Insert one large grommet into the oval hole closest to the corner.
- Move to the right top side of the back panel and insert one large grommet to the oval hole.

## SCHRITT 20 Ausrichten des Netzteils



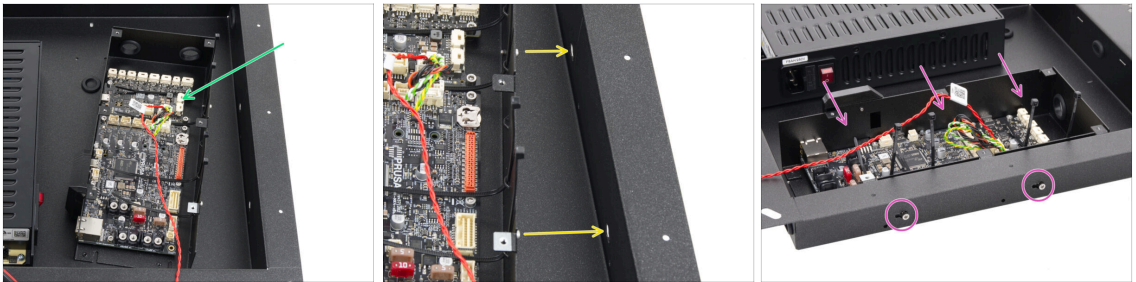
- Carefully insert the PSU into the rear panel pocket.
- Align the screws on the PSU to the holes on the left side of the back panel.
- Slide the PSU so that the screws go through the holes.

## SCHRITT 21 Montieren des Netzteils



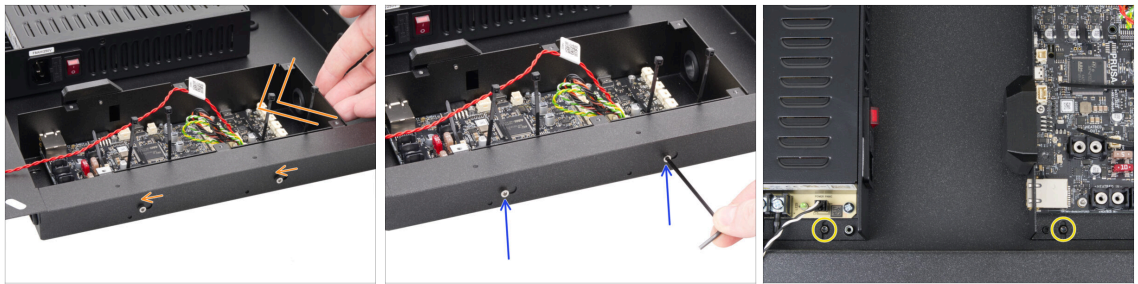
- Gently slide the PSU so that the position of the screws moves to the end position of the keyhole-shaped holes.
- Maintain the PSU position and fully tighten both screws.

## SCHRITT 22 Aligning the xBuddy box assembly



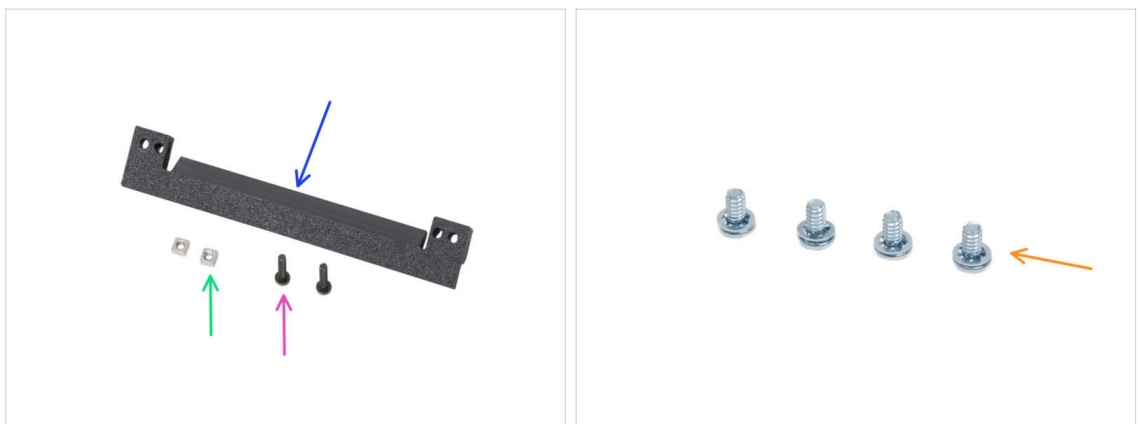
- Carefully insert the xBuddy box assembly into the rear panel pocket.
- Align the screws on the xBuddy box to the holes on the right side of the back panel.
- Slide the xBuddy box so that the screws go through the holes.

## SCHRITT 23 Mounting the xBuddy box



- Gently slide the xBuddy box assembly so that the position of the screws moves to the end position of the keyhole-shaped holes.
- Maintain the xBuddy box position and fully tighten both screws.
- Fix the PSU and xBuddy box assembly to the back panel by tightening two M3x4rT screws.

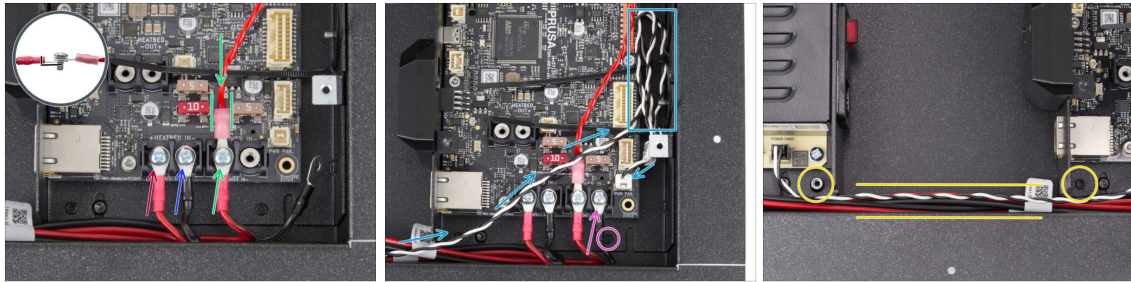
## SCHRITT 24 Power cables cover: parts preparation



- **For the following steps, please prepare:**
- PSU-cable-cover (1x) *found in the Printed parts package*
- M3nS Mutter (2x)
- Schraube M3x10rT (2x)
- 6-32 Power Terminal Screw (4x)



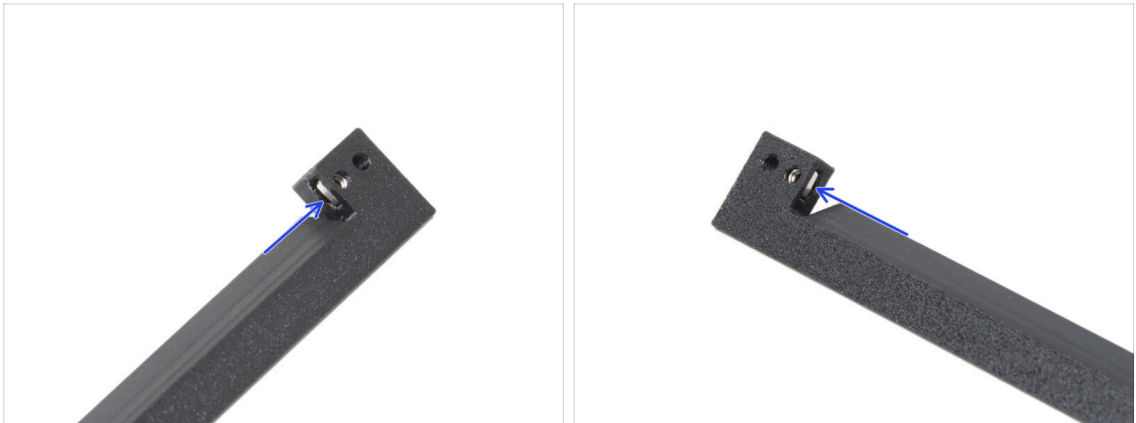
## SCHRITT 25 Connecting the power cables



- Take one red cable leading from the PSU and connect it to the first left terminal slot on the xBuddy board using the 6/32" terminal screw. Tighten it firmly but gently.

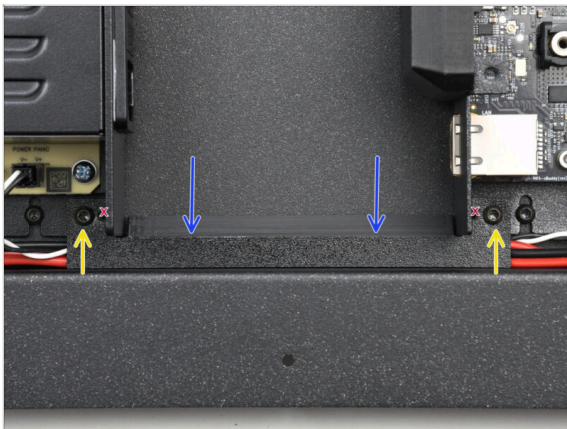
**⚠ Note that the "L" shape of the cable connector must always "undercut" the head of the terminal screw.**
- Connect the black PSU cable from the same pair as the red one to the second terminal using the 6/32" terminal screw. Tighten the screws firmly.
- Nehmen Sie das zweite rote Kabel vom Netzteil und verbinden Sie es mit dem roten Kabel, das von der Erweiterungsplatine kommt. **Beachten Sie das Detail.** Fixieren Sie diese beiden Kabel mit der Klemmschraube im dritten Klemmenanschluss.
- Guide the xBuddy extension cable carefully between the fuses, ensuring it is positioned securely without pressing against them.
- i Note that from early 2025, the fuses are different.** Significantly smaller, white, and embedded in the fuse slot in the xBuddy board, so as not to obstruct the cables.
- Connect the second black PSU cable to the xBuddy, **ensuring it does not obstruct the threaded hole.**
- Route the power panic cable to the xBuddy box and connect it to the bottom right slot on the xBuddy board. Make several loops from the excess cable above the slot.
- Arrange the PSU cables as shown, ensuring that no obstructions are around the threaded holes in the PSU and xBuddy box.

## SCHRITT 26 Vorbereiten der PSU-cable-cover



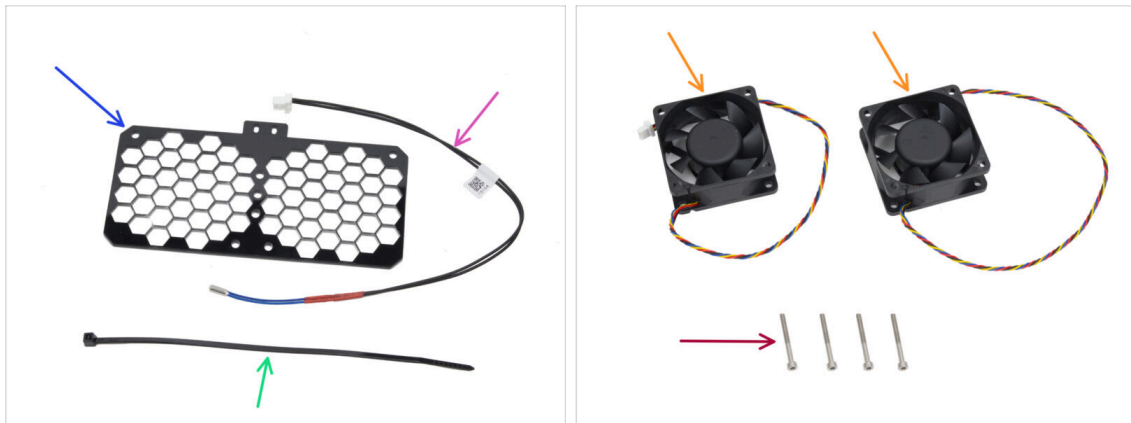
- Insert one M3nS nut into the hole on each end of the PSU-cable-cover.
- Ensure the holes are aligned.

## SCHRITT 27 Covering the PSU cables



- Attach the PSU-cable-cover on the PSU cables.
- Secure the cover with two M3x10rT screws in the outermost holes of the part.

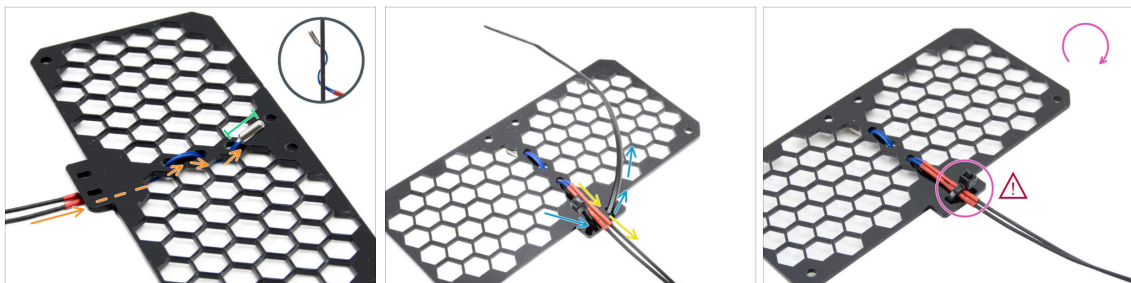
## SCHRITT 28 Chamber fans: parts preparation



● For the following steps, please prepare:

- Fan grid (1x) found in the Electronics & Chamber parts package
- Chamber thermistor 260 mm (1x) found in the Electronics & Chamber parts package
- Kabelbinder (1x)
- Cooling fan (2x) found in the Electronics & Chamber parts package
- Schraube M3x30 (4x)

## SCHRITT 29 Assembling the fan grid



- Guide the thermistor cable under the grid. Thread it in the direction shown in the picture.

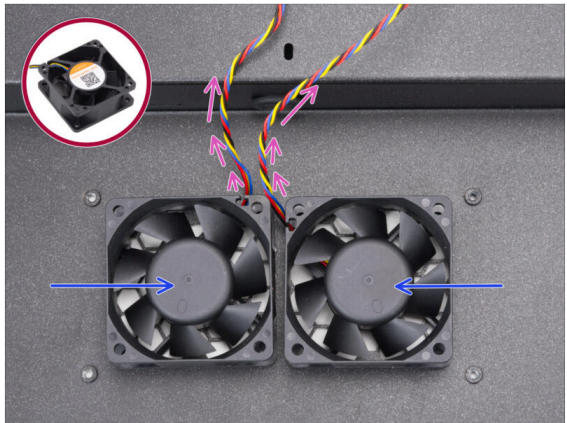
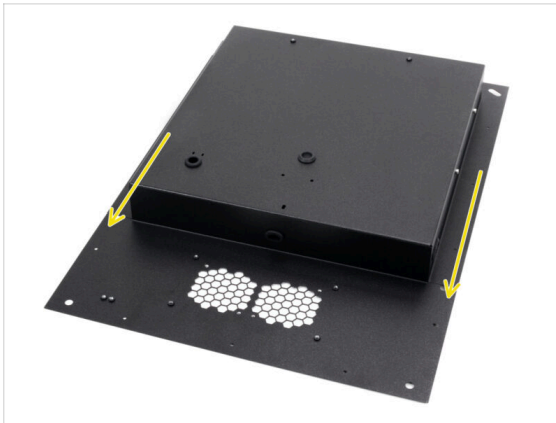
❗ The grid has both sides the same.

- Leave the whole thermistor part sticking out.
- Drehen Sie das Gitter um und schieben Sie den Kabelbinder durch die beiden Löcher am Vorsprung des Gitters.
- Route the thermistor cable in between the zip tie parts.
- Carefully secure the thermistor cable by tightening the zip tie. **Do not overtighten it, it may damage the cable.**

⚠ **Make sure that the header of the zip tie is facing the same way as in the picture. It must be on the same side as where the cable starts.**

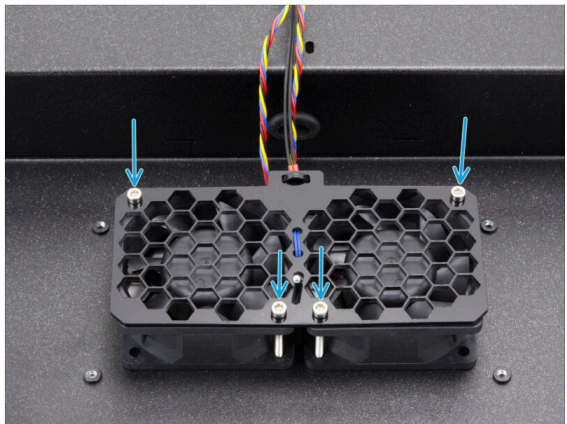
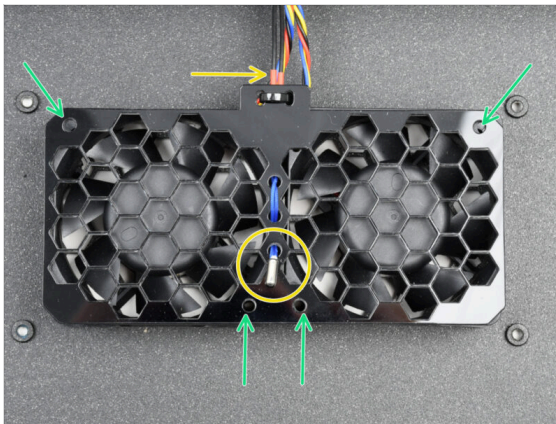
- Put the assembly aside for a while.

## SCHRITT 30 Anbringen der Lüfter



- ✦ Place and orient the back panel according to the picture. The grid cutouts must be facing you.
- ✦ Place both fans to the grid in the back panel.
  - ⚠ **The side of the fan without the sticker must be facing up.**
- ✦ Richten Sie die Lüfter so aus, dass die Kabel von den Ecken in die Mitte verlaufen.
- ✦ Let the cables hang freely for now, ensuring they are not pinched during handling.

## SCHRITT 31 Covering the cooling fans



- ✦ Place the fan grid assembly on the cooling fans.
  - ⚠ **Make sure that the thermistor is pointing up and its cable runs under the grid.**
- ✦ Align holes in the fans, fan grid and the back panel.
- ✦ Befestigen Sie die Lüfter Baugruppe mit vier M3x30 Schrauben an der Rückwand.
  - ⚠ **Do not overtighten the screws to avoid damaging the grid.**



## SCHRITT 32 Rear profiles: parts preparation



● For the following steps, please prepare:

● Rear profile (2x) found in the Metal parts 1/3 package

① Take two of the longer ones.

Note that the other two longer ones differ by having cutouts.

● Nylon-Niete (11x)

● Schraube M3x4rT (4x)

● 2.9x6.5sT self-tapping screw (1x) from the Electronics and Fasteners Package

## SCHRITT 33 Installing the rear profiles



● Take the bottom assembly and turn it so the rear side (with one motor in the center) faces you.



Focus on the right rear corner—the side with the longest oval opening in the bottom panel.

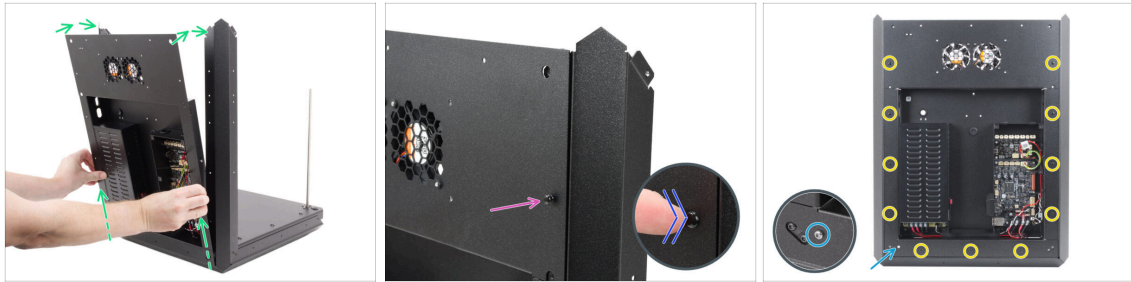
● Attach the rear profile to the right corner, using the **end without flanges**.

● Richten Sie das Loch auf der Rückseite aus und befestigen Sie es mit der Schraube M3x4rT.

● Secure the corner on the other side with a second M3x4rT screw - each corner will be secured with two M3x4rT screws.

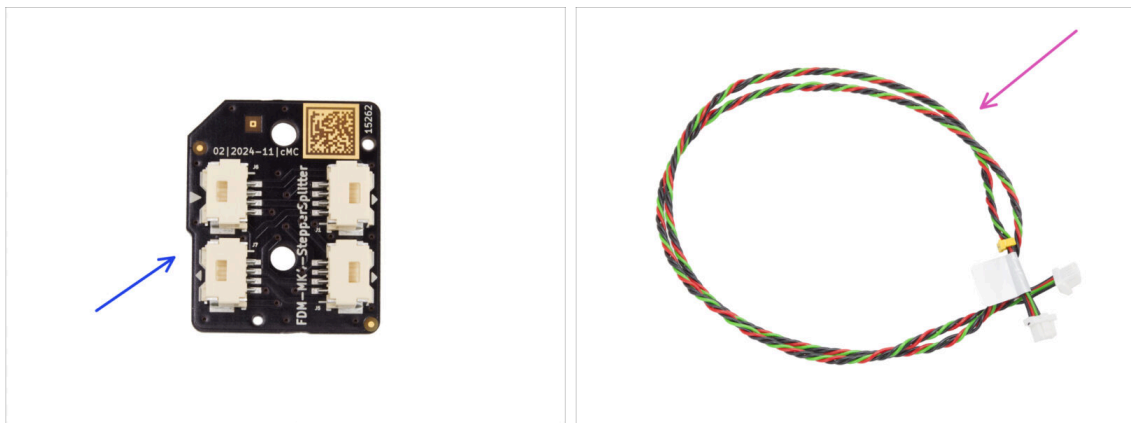
● Proceed the same with the second rear profile on the rear left corner.

## SCHRITT 34 Mounting the back panel



- ◆ Slightly lift the back assembly and gently place it on the base assembly and rear profiles.
- ◆ Insert one nylon rivet through the rear panel and rear profile on the top right side.
- ◆ Push the rivet head with your finger until it is fully seated.
- ◆ Führen Sie diese Prozedur für alle elf Nylon-Nieten um die Rückwand-Baugruppe herum aus, um sie zu befestigen.
- ◆ Insert and tighten the 2.9x6.5 self-tapping screw into the back panel. **Avoid overtightening** to prevent stripping the self-tapped thread.

## SCHRITT 35 Stepper splitter: parts preparation



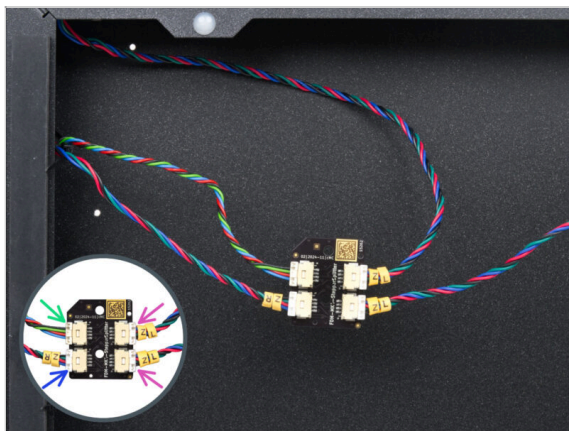
- ◆ **For the following steps, please prepare:**
- ◆ Stepper splitter (1x) *found in the Electronics & Chamber parts package*
- ◆ Stepper splitter cable (1x) *found in the Electronics & Fasteners package*

## SCHRITT 36 Guiding the Stepper splitter cable



- Very carefully turn the assembly on its back (back panel).
  - **It is recommended to support the rear of the assembly** with a soft, raised pad to prevent it from resting on the protruding Wi-Fi module.
  - i Tip: Use the foam padding from the sheet metal parts package or an empty cardboard box.
- Führen Sie das Stepper-Splitterkabel durch die drei Kabelbinder auf der linken Seite.
  - For now, leave the side with the label hanging freely outside.
  - Guide the Z-axis motor R cable through the three zip ties on the left side.
- ⚠ **Do not tighten the zip ties at this moment.**

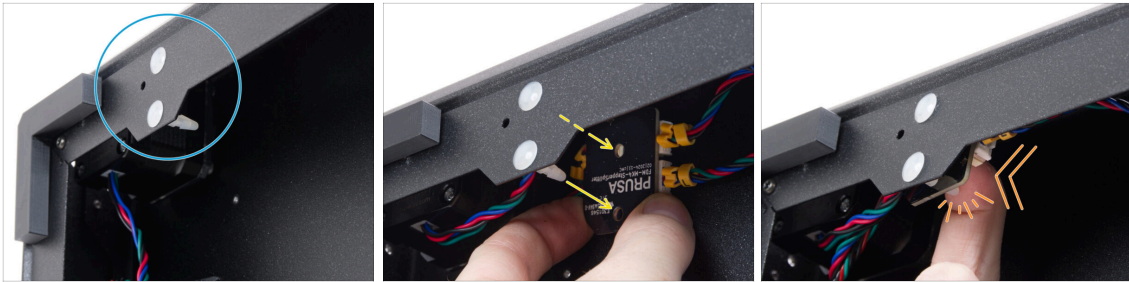
## SCHRITT 37 Connecting the Stepper splitter



- **Connect the Z motor cables to the stepper splitter:**

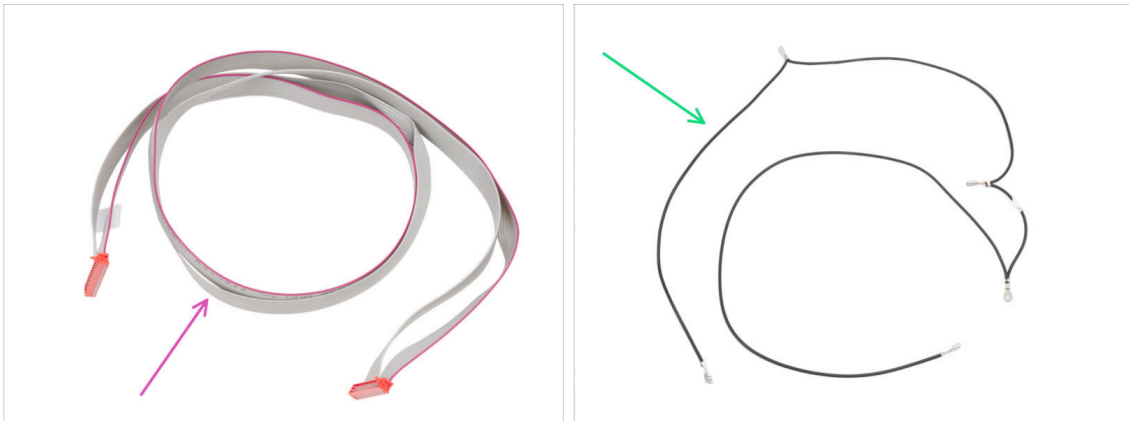
- Stepper-Splitterkabel
- Z-Achse Motor R
- Z-Achse Motor L
- Z-Achse Motor L

## SCHRITT 38 Mounting the Stepper Splitter



- 🔵 Locate two spacer pins in the bottom frame.
- 🟡 From the inside of the frame, prepare the Stepper splitter and attach its holes opposite the pins.
- ⬛ Check the correct orientation of the part by the logo on the board. **The logo is upside down.**
- 🟠 Drücken Sie den ausgerichteten Stepper-Splitter auf die Stifte, bis Sie ein Klicken spüren - dadurch wird der Stepper-Splitter fixiert. Drücken Sie ihn in die Mitte der Platine.
- 📄 ⓘ It is necessary to apply a significant pressure to seat the part in. Yet, be very careful not to damage the components.

## SCHRITT 39 LCD cable: parts preparation



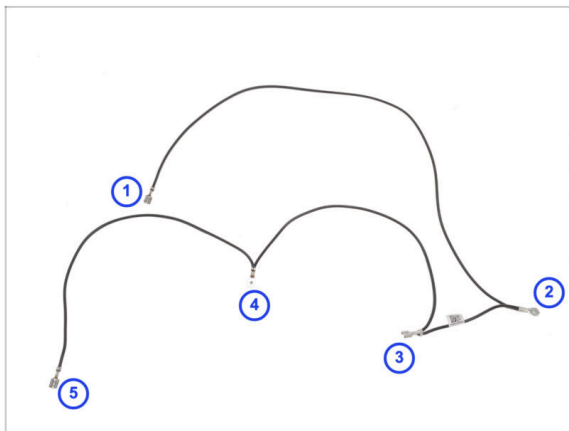
- ⬛ **For the following steps, please prepare:**
- 🟡 xLCD cable (1x) *found in the Electronics & Fasteners package*
- 🟢 Main FE cable (1x) *found in the Electronics & Fasteners package*

## SCHRITT 40 Guiding the LCD cable



- Guide the Stepper splitter cable through the oval hole to the electronics.
- Take the end of the xLCD cable with the QR code label.
- Push a few centimeters of the xLCD cable (the end with the QR code label) through the oval hole in the bottom panel.
- ❗ Das Kabel muss leicht gefaltet werden, damit es durch das Loch passt.
- Guide the xLCD cable through the zip ties on the left side of the frame.
- Guide the xLCD cable through the rectangular opening in the front profile. Keep protruding approximately 6 cm (2.36 in).
- Leave the cable hang freely for now.

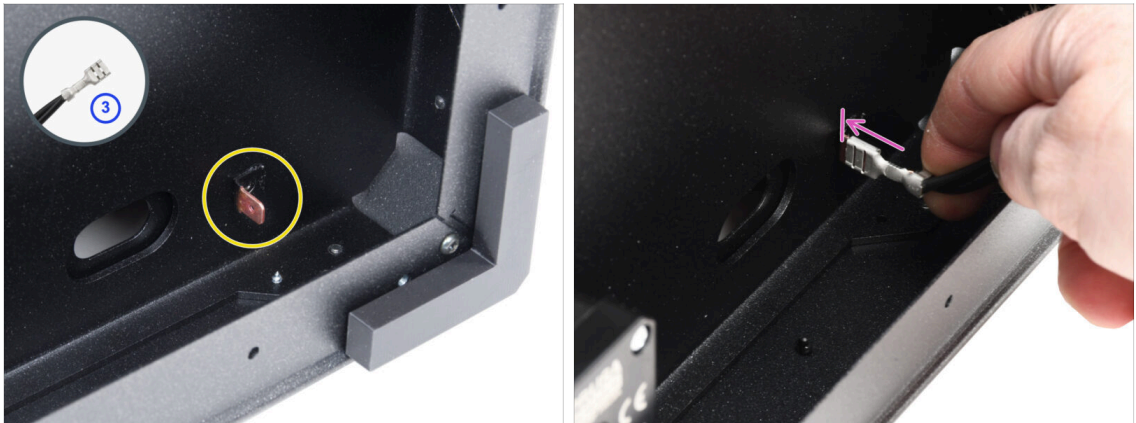
## SCHRITT 41 Main FE cable INFO



- Lay out the Main FE cable as shown in the picture, ensuring each connector is positioned accordingly.
- The connectors are numbered in the picture for reference only. This numbering will be used in the following steps to help with proper connections.
- ❗ Note: We will always indicate which connector to use in the following steps. However, it's a good idea to remember this overview for easier assembly.



## SCHRITT 42 Connecting the FE cable (no 3.)



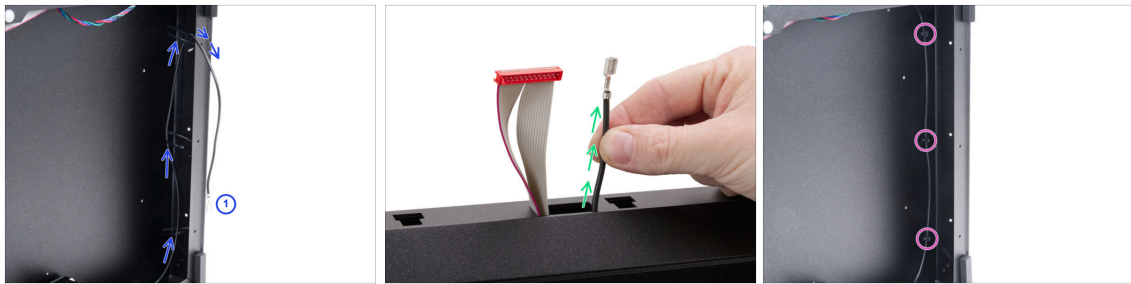
- Prepare the connector number 3.
  - ⓘ That's the female faston connector in the middle of the cable.
- Locate the male Faston connector in the bottom right corner.
- Schieben Sie den FE-Kabelstecker vollständig auf den Faston-Stecker.

## SCHRITT 43 Guiding the FE cable (no. 2)



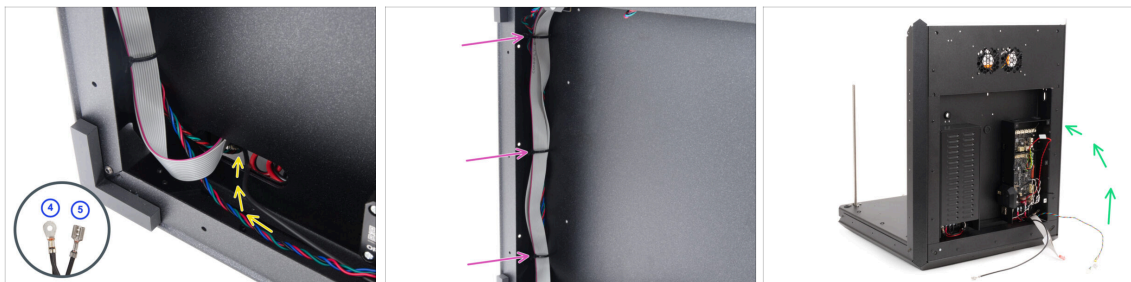
- Take the FE cable connector number 2.
  - ⓘ The round connector nearby.
- Insert the connector loosely into the hole in the bottom panel.

## SCHRITT 44 Guiding the FE cable (no. 1)



- Take the connector number 1 and guide it through the zip ties on the right side of the frame.
- ❗ That is the long part with just one faston connector at the end.
- Push the connector through the rectangular opening in the front profile. Keep protruding approximately 6 cm (2.36 in).
- Lassen Sie das Kabel erst einmal frei hängen.
- Tighten all three zip ties. Cut off the excess.

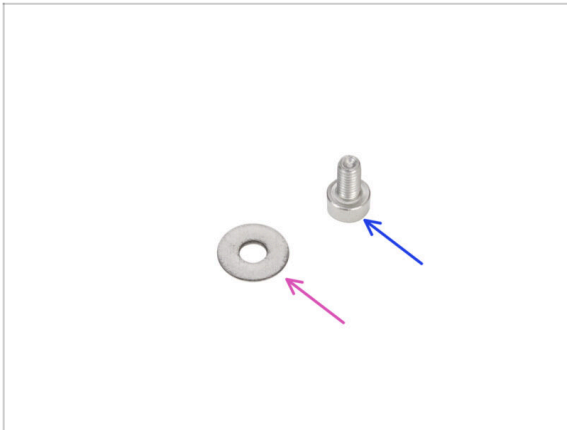
## SCHRITT 45 Guiding the FE cable (no. 4 and 5)



- Take the FE cable connectors number 4 and 5.
- Push both connectors through the leftmost hole in the bottom. Leave them free for now.
- Tighten all three zip ties on the left side of the frame. Cut off the excess.
- Sie müssen die Kabelbinder nicht vollständig festziehen. Die Kabel müssen sich aber dennoch leicht bewegen lassen, damit Sie die Länge während der Verbindung anpassen können.
- Carefully turn the printer back on its feet. Focus on the back side.



## SCHRITT 46 FE cable - xBuddy: parts preparation



● For the following steps, please prepare:

◆ M3w Unterlegscheibe (1x)

◆ Schraube M3x6 (1x)

## SCHRITT 47 Connecting the FE cable: xBuddy

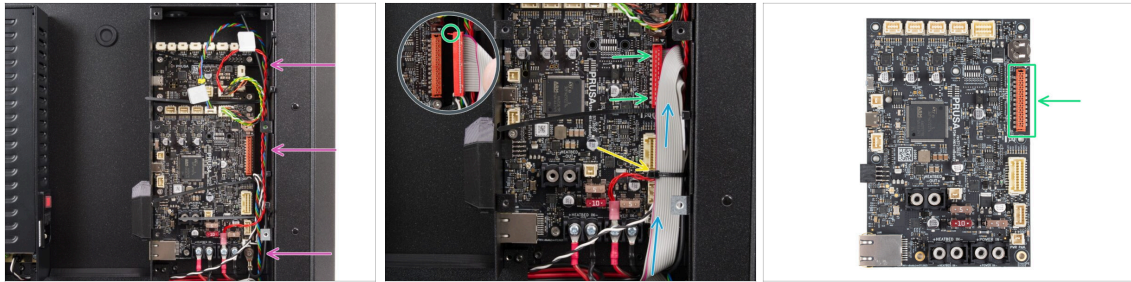


- ◆ Take the connector number 4 and connect it to the xBuddy using the M3x6 screw and M3w washer.

⚠ The M3 washer must be between the screw head and the connector.

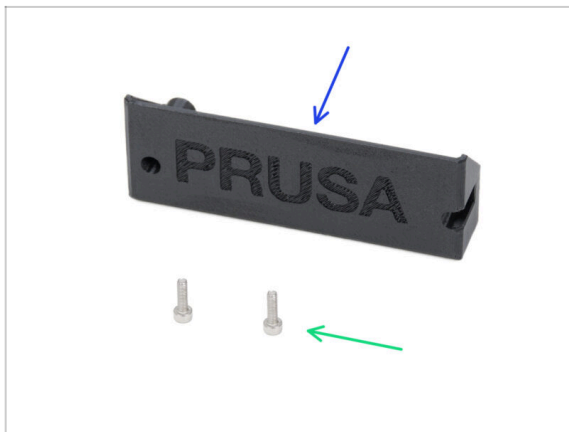
- ◆ Guide the FE cable (number 5) alongside the xBuddy box and pass it through the right-side holes out of the box.
- ◆ Führen Sie das Stepper-Splitterkabel an der xBuddy-Box entlang und schließen Sie es an den zweiten Anschluss von rechts in der obersten Reihe auf der xBuddy-Platine an (mit ZR beschriftet).

## SCHRITT 48 Plugging the xLCD cable



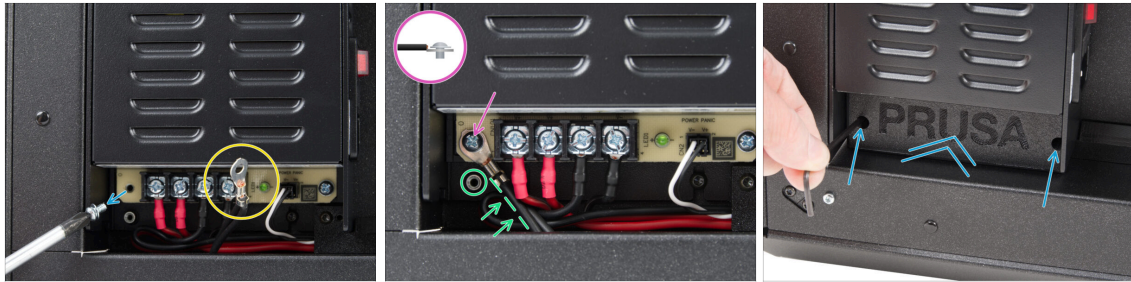
- ◆ Arrange the cables as shown - route all cables along the right side of the xBuddy box.
- ⚠ Make sure all the cables guide through the zip ties in the xBuddy box, not under them.
- ◆ Place the xLCD cable over the other cables and route it upwards.
- ◆ Schließen Sie das xLCD an den Anschluss auf der rechten Seite des xBuddy an. **Beachten Sie die Sicherheitsverriegelung am xLCD-Kabelanschluss. Der Riegel muss in die Oberseite des Steckers passen.**
- ◆ Secure the cable arrangement by tightening the bottom zip tie.
- ⚠ Do not overtighten the zip tie, as it may damage the wires.
- ◆ Carefully cut off the excess length of the zip tie. **Avoid cutting cables!**

## SCHRITT 49 PSU-cover: Vorbereitung der Teile



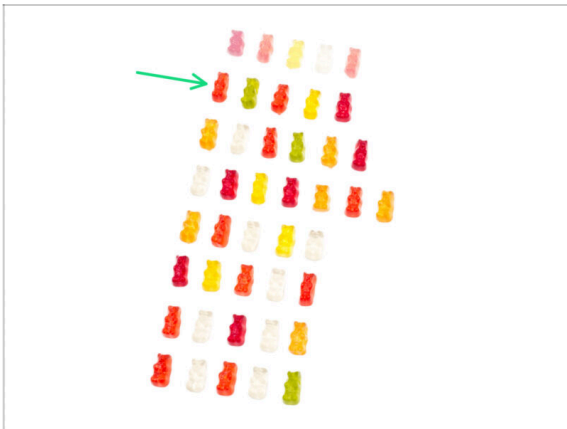
- ◆ For the following steps, please prepare:
- ◆ CORE-One-PSU-cover (1x) found in the Printed parts package
- ◆ Schraube M3x10 (2x)

## SCHRITT 50 Connecting the FE cable: PSU



- Remove the screw from the PSU board. **Do not discard it!**
- Ensure the FE connector (number 2) is routed into the PSU compartment.
- Insert the removed screw through the FE cable connector and screw it back to the PSU board.
- ⬛ Achten Sie auf die richtige Ausrichtung des Steckers.
- Rotate the connector counter-clockwise, positioning it so it doesn't block the threaded hole underneath.
- Attach the PSU-cover over the PSU connectors and secure with two M3x10 screws.

## SCHRITT 51 Haribo Zeit!



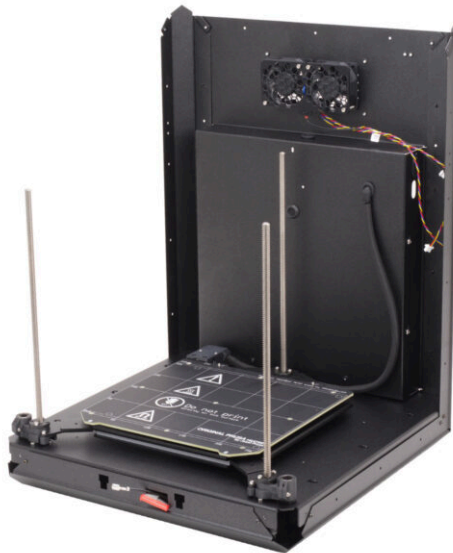
- ⬛ Time to recharge for the next chapter!
- Eat the second row.
- ⚠ **Nicht schummeln**-essen Sie nur die angezeigte Anzahl!

## SCHRITT 52 Abgeschlossen

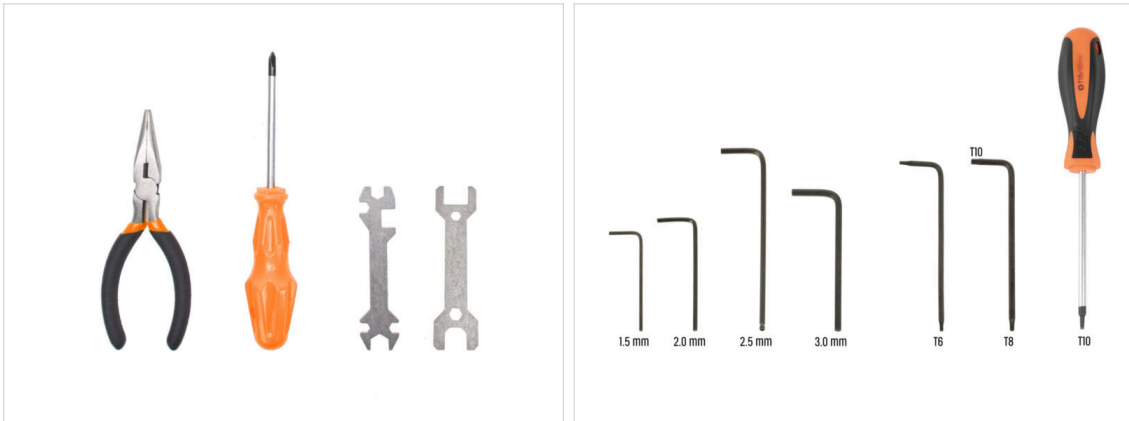


- Congratulations! The back assembly is installed.
- Now continue to the next chapter.

## 4. Zusammenbau des Heizbetts



## SCHRITT 1 Benötigte Werkzeuge für dieses Kapitel

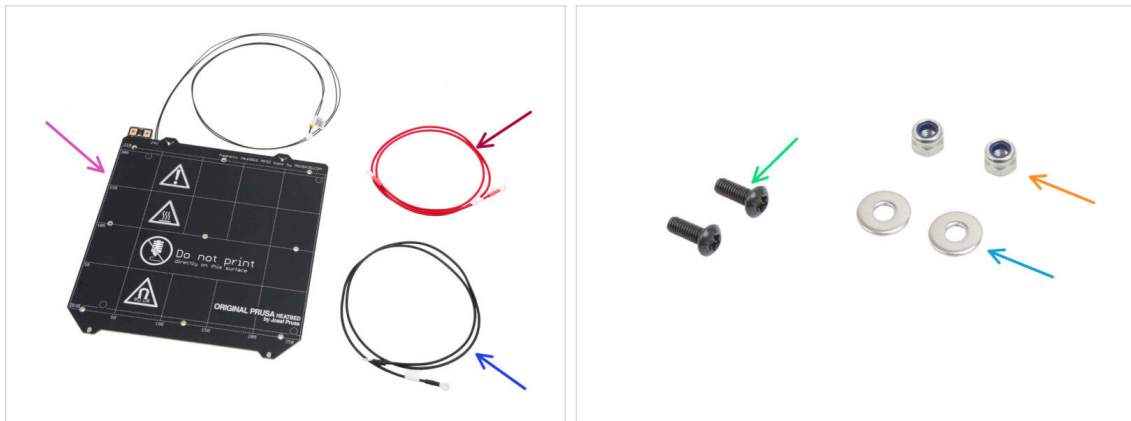


● **Bereiten Sie bitte für dieses Kapitel vor:**

- Spitzzange
- Universal-Schlüssel
- Schraubenschlüssel 13-16
- Phillips Schraubendreher PH2
- 2,5mm Innensechskantschlüssel
- 2,0 mm Innensechskantschlüssel
- T10 Schraubendreher / Schlüssel



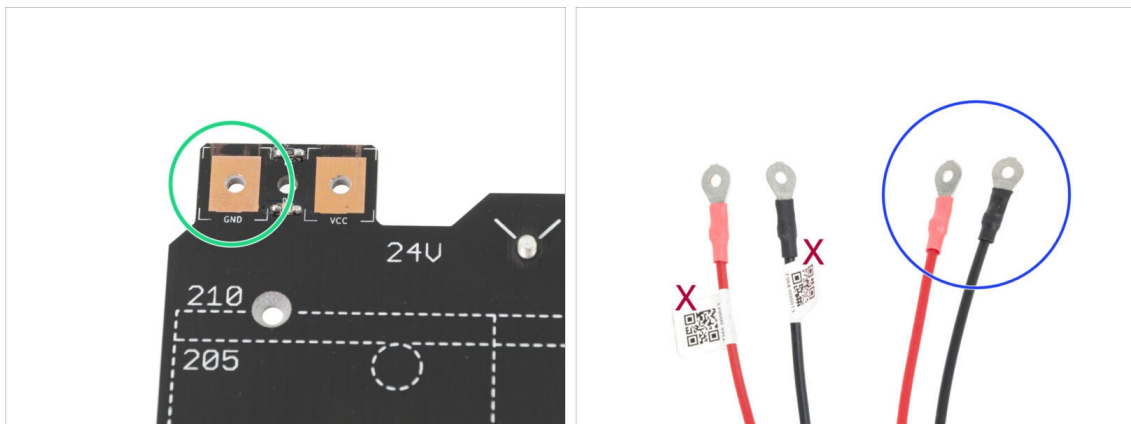
## SCHRITT 2 Heizbett: Teilvervorbereitung



■ Für den folgenden Schritt bereiten Sie bitte vor:

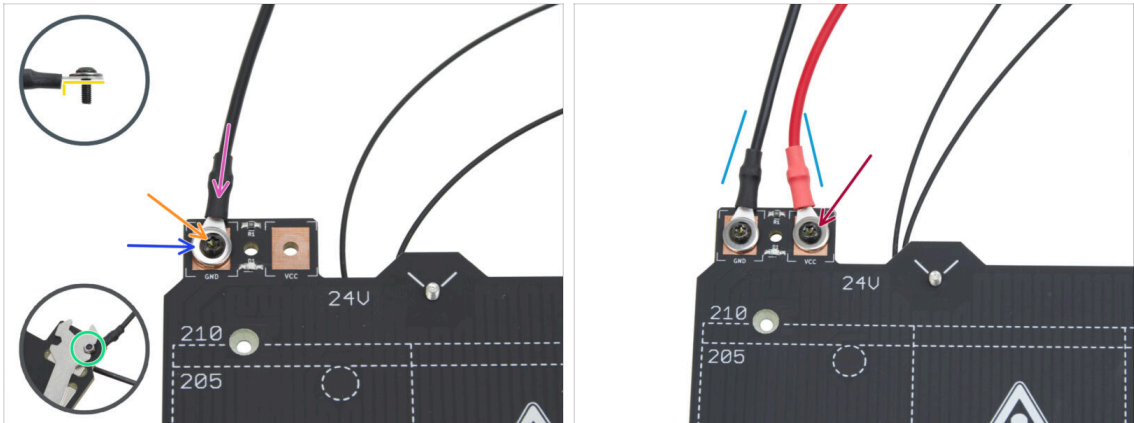
- Heatbed MK52 24V (1x) *found in the CoreXY parts + Hinges set package*
- Heatbed cable red (1x) *found in the Electronics & Fasteners package*
- Heatbed cable black (1x) *found in the Electronics & Fasteners package*
- Schraube M3x10rT (2x)
- M3nN Mutter (2x)
- M3w Unterlegscheibe (2x)

## SCHRITT 3 Heizbettkabel Zusammenbau (Teil 1)



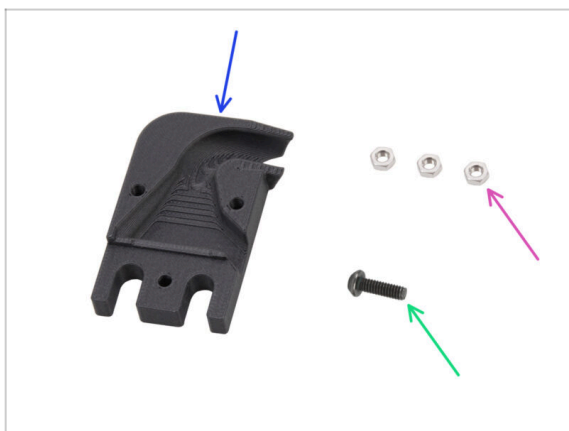
- **ES IST SEHR WICHTIG** die Stromkabel korrekt anzuschließen. Bevor Sie mit der Montage beginnen, müssen Sie auf die Kontakte schauen. Der auf der linken Seite mit dem "GND" Schild muss an das **SCHWARZE KABEL** angeschlossen werden.
- Take both Heatbed cables. Note the label on each cable. For the following steps, prepare the ends of the cables **without the label**.

## SCHRITT 4 Heizbettkabel Zusammenbau (Teil 2)



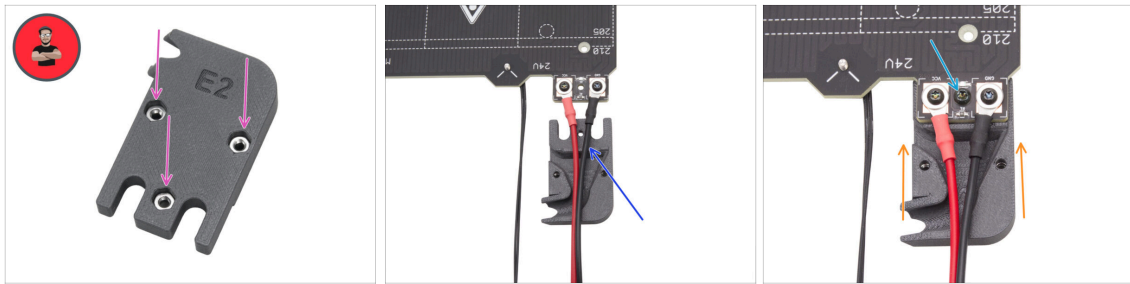
- ✿ Place the black wire above the pin with "GND" sign. **Use the end of the cable that is not labeled with QR code.** The QR code must be at the other end.
- ✿ Note the correct position of the cable terminal lug on the detail.
- ✿ Place the M3w washer above the round cable connector.
- ✿ Push the M3x10rT screw through all parts.
- ✿ Hold the screw and carefully turn the heatbed upside down.
- ✿ Attach the M3nN nut onto the M3x10rT screw and tighten it slightly.
- ✿ Verbinden Sie auf die gleiche Weise das rote Kabel mit dem mit „VCC“ bezeichneten Anschluss am Heizbett.
- ✿ Führen Sie die Kabel vom Heizbett leicht zueinander (in Form eines „V“). **Ziehen Sie dann die Muttern von unten fest an.**

## SCHRITT 5 Bed-cable-cover-bottom: Vorbereitung der Teile



- ✿ **For the following steps, please prepare:**
- ✿ Bed-cable-cover-bottom (1x)
- ✿ M3n Mutter (3x)
- ✿ Schraube M3x10rT (1x)

## SCHRITT 6 Anbringen der Kabelabdeckung



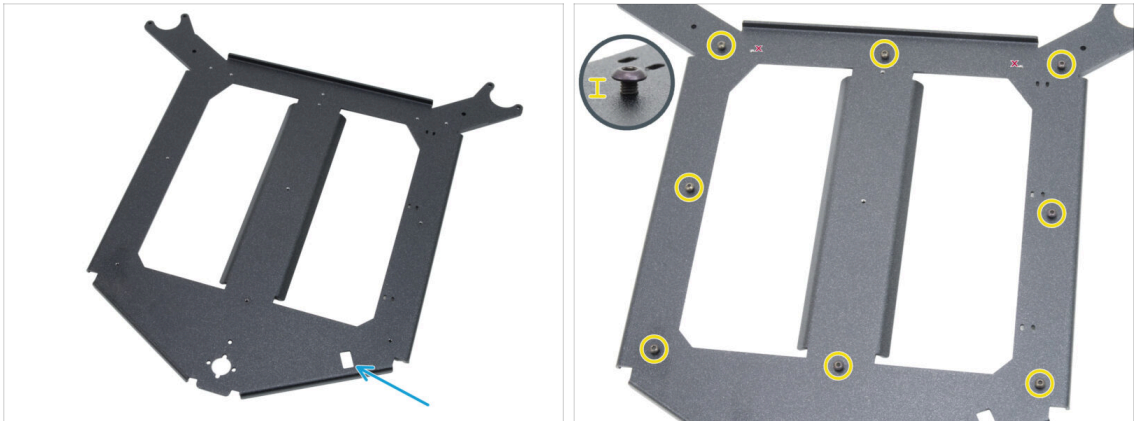
- ✿ Insert three M3n nuts into the Bed-cable-cover-bottom part.
- ❗ Pro tip: Use the screw-pulling technique.
- ⬛ Make sure the nuts are fully inserted and held in place.
- 🔵 Insert the Bed-cable-cover-bottom under the heatbed cables. Note the orientation of the part.
- 🟠 Slide the Bed-cable-cover-bottom under the cable joint of the heatbed.
- 🔵 Line up the hole in the heatbed with the cable cover and secure it with the M3x10rT screw.

## SCHRITT 7 Heatbed carriage: Vorbereitung der Teile



- ⬛ **For the following steps, please prepare:**
- ✿ Heatbed carriage (1x) *found in the Metal parts 1/3 package*
- 🟠 Expansion joint (8x) *found in the Electronics package*
- 🟢 Schraube M3x4r (8x)
- 🔧 The Fasteners package includes both M3x4r and M3x4rT screws. Make sure you have the correct type prepared.

## SCHRITT 8 Vorbereiten des Heatbed-carriage



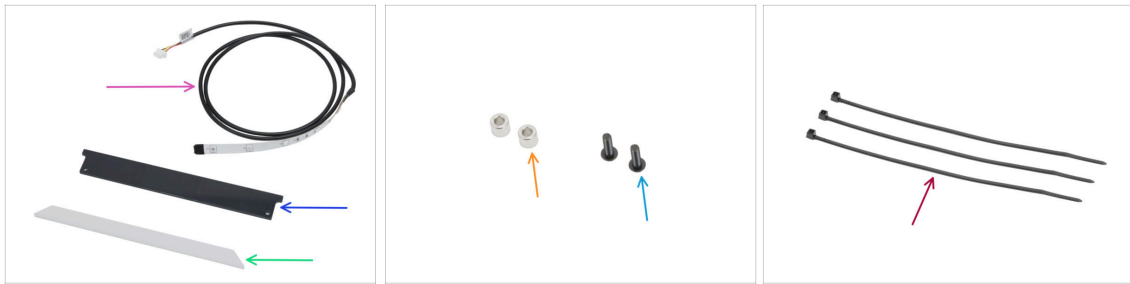
- Place the heatbed carriage in front of you in the same orientation as in the picture.
- Make sure the **rectangular cutout is facing you on the right side**.
- Insert eight M3x4r screws around the heatbed carriage.
- ⚠ **Do not tighten completely, leave a gap of approximately 3 mm (0.12 in).**

## SCHRITT 9 Installieren der Expansion-joints



- Attach one expansion joint to any M3x4r screw in the same orientation as shown.
- Note the U-shaped "groove" for the screw inside the expansion joint - point it towards the screw.
- Slide the expansion joint onto the screw.
- Grasp the expansion joint in the rectangular cutout of the universal wrench.
- Position the key with the expansion joint in its correct orientation as shown in the illustration.
- **Maintain the expansion joint in the correct position** and firmly tighten the M3x4r screw through the expansion joint with a 2.0 mm Allen key.
- ⚠ **Wiederholen Sie diesen Vorgang für alle anderen Expansion-joints. Beachten Sie ihre korrekte Position!**

## SCHRITT 10 RGB-LED-Streifen: Vorbereitung der Teile



For the following steps, please prepare:

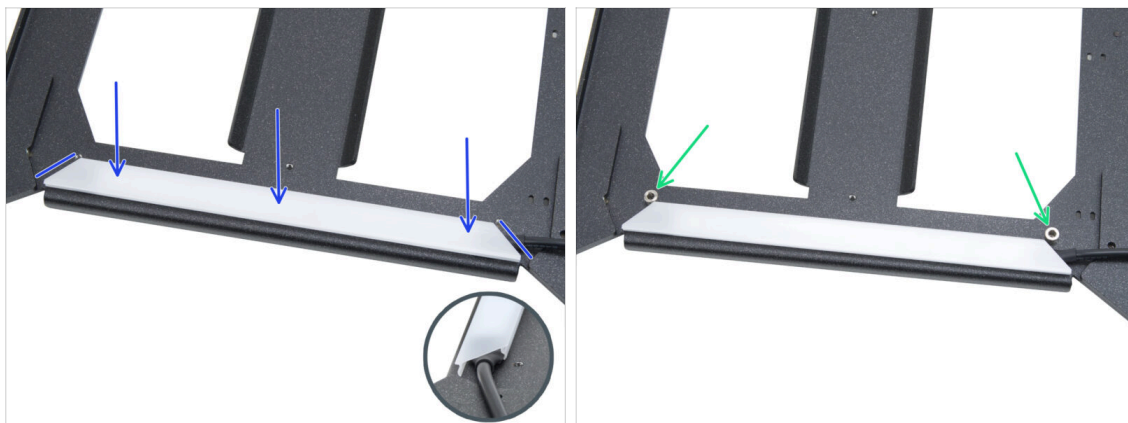
- RGB LED strip 166 mm (1x) *found in the Electronics & Fasteners package*
- ⚠️ **Avoid direct contact with the LED and resistors on the LED strip.**
- LED status cover (1x) *found in the Electronics & Chamber parts package*
- LED strip diffuser (1x) *found in the CoreXY parts + Hinges set package*
- Spacer 3.2/6x5 mm (2x) *found in the Electronics & Fasteners package*
- Schraube M3x10rT (2x)
- Kabelbinder (3x)

## SCHRITT 11 Installieren des LED-Streifens



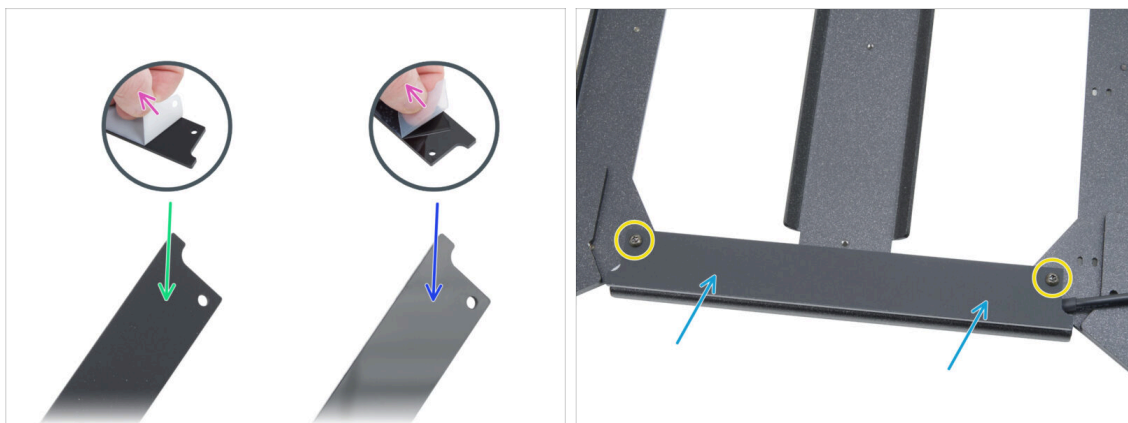
- Place the heatbed carriage in front of you in the same orientation as in the picture.
- Make sure the **rectangular cutout is far from you and on the right side**.
- Carefully peel off the protective (paper) layer from the RGB LED strip.
- ⚠️ **After removing the protective layer, the RGB LED strip is adhesive.**
- Stick the RGB LED strip evenly to the front of the heatbed carriage, approximately 3 mm (0.12 in) from the folded edge.  
Align the middle LED with the screw on the carriage.
- The RGB LED strip **must point to the right**.
- Drücken Sie nach dem Aufkleben leicht auf die leeren Stellen des Streifens, um die Haftung zu gewährleisten. **LEDs und Widerstände nicht berühren!**

## SCHRITT 12 Anbringen des LED-Streifen-Diffusors



- Place the LED strip diffuser over the RGB LED strip. Note the orientation of the part - according to the beveled edges.
- Place two spacers 3.2/6x5 mm on the holes in the edges of the LED assembly.

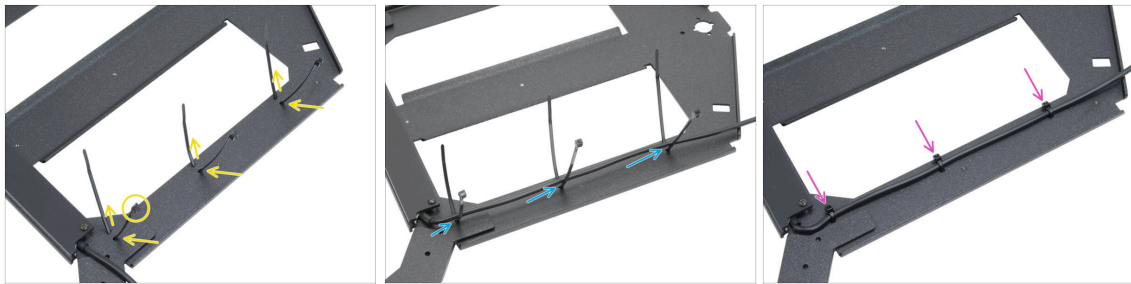
## SCHRITT 13 Abdecken des RGB-LED-Streifens



- From both sides of the LED status cover, peel off the protective layers.
- Note that one side of the cover is matte.
- The other side of the cover is glossy.
- Attach the LED strip cover to the assembly, **matte side up**.
- Secure all parts together by inserting and tightening two M3x10rT screws. **Do not overtighten the screws**, as it may crack the cover.

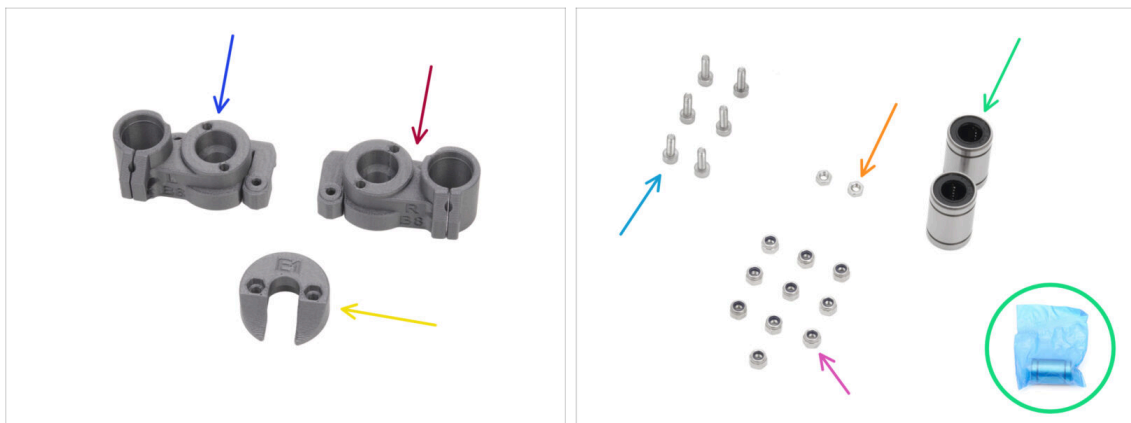


## SCHRITT 14 Führen des Kabels der RGB-LED-Streifen



- ✦ Thread the three zip ties along the **RIGHT SIDE** of the heatbed carriage. Make sure the zip tie heads are facing outward.
- ✦ Guide the RGB LED strip cable through all zip ties.
- ✦ Then tighten all three zip ties. Cut off excess zip ties.

## SCHRITT 15 Bettbefestigungen: Vorbereitung der Teile



- ✦ **For the following steps, please prepare:**
- ✦ CORE-One-bed-mount-left (1x) *found in the Printed parts package*
- ✦ CORE-One-bed-mount-right (1x) *found in the Printed parts package*
- ✦ CORE-One-bed-spacer-rear (1x) *found in the Printed parts package*
- ✦ LM8UU bearing (2x) *found in the Electronics package*
- ❗ The bearings in the kit are packed in blue bags.
- ✦ Schraube M3x10 (6x)
- ✦ M3n Mutter (2x)
- ✦ M3nN Mutter (10x)

## SCHRITT 16 Montieren der Bettbefestigungen



- Place the CORE-One-bed-mount-left onto the bearing, ensuring the correct orientation.
- Press the part onto the bearing, applying more force to ensure it moves all the way down. You will feel a click, indicating that the plastic part and bearing are correctly seated.
- ⚠ The bearing must be fully enclosed within the part and must not protrude.
- Follow the same procedure with CORE-One-bed-mount-right.

## SCHRITT 17 Befestigen der Bettbefestigungen



- Insert one M3n nut into the CORE-One-bed-mount-left.
- Position the CORE-One-bed-mount-left according to the picture:
  - Position the bearing so that two ball rows face the bottom of the part, not just one.
- Keep the bearing in the position and secure it by inserting and tightening one M3x10 screw.
- ⚠ Ensure that the top surface of the bearing is flush with the top surface of the plastic part.
- Follow the same procedure with CORE-One-bed-mount-right.

## SCHRITT 18 Bettbefestigungen: Einsetzen der Muttern



- Insert four M3nN nuts into both bed mounts.
- Make sure they are inserted completely inside.

## SCHRITT 19 Zusammenbau der CORE-One-bed-spacer-rear



- Insert two M3nN nuts into the CORE-One-bed-spacer-rear.
- Insert the nuts down as much as possible.

## SCHRITT 20 Installieren des Bed-mount-right



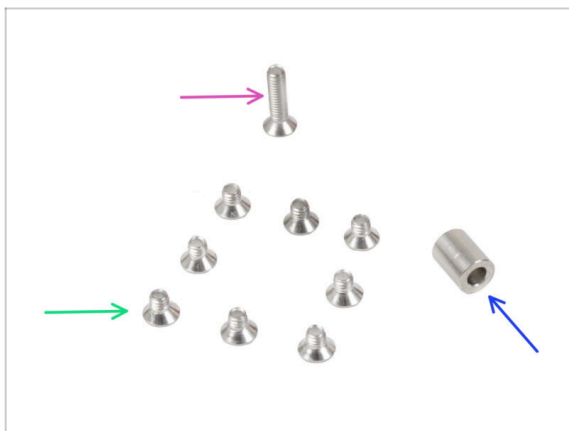
- Turn the heatbed carriage piece with the "forks" facing you and with the **expansion joints facing up**.
- Take the CORE-One-bed-mount-**right** part and slide it **under** the **right** fork - with the bearing on the right.
- Fix it with two M3x10 screws.

## SCHRITT 21 Installieren des Bed-mount-left



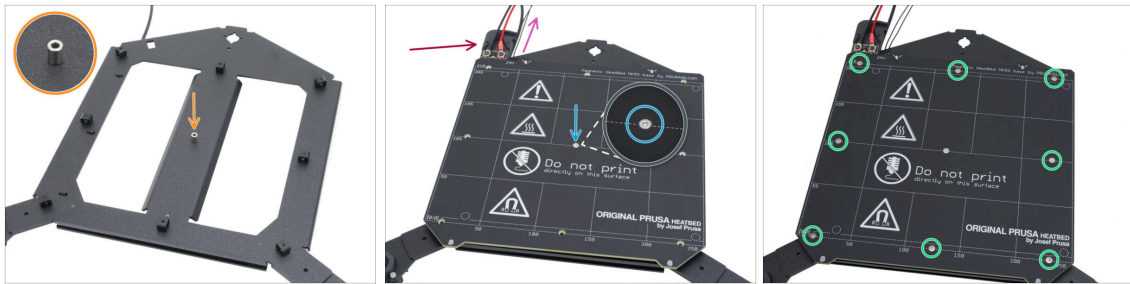
- Take the One-bed-mount-**left** part and slide it **under** the **left** fork - with the bearing on the left.
- Fix it with two M3x10 screws.

## SCHRITT 22 Anbringen des Heizbettes: Vorbereitung der Teile



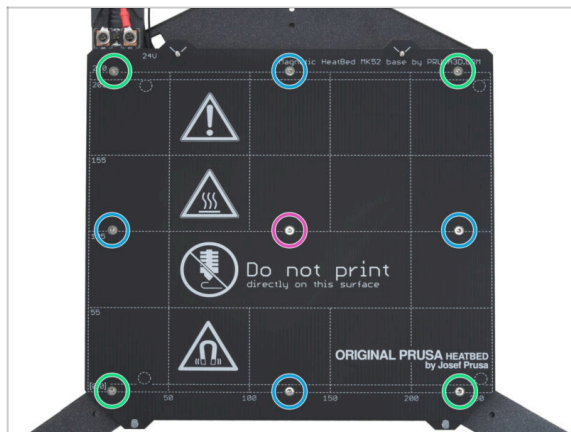
- For the following steps, please prepare:
- M3x12bT countersunk screw (1x)
  - i** Note: The package may label this screw as M3x12cT.
- Spacer 6x3.1x8 mm (1x) *found in the Nextruder assembly package*
- M3x4bT countersunk screw (8x)

## SCHRITT 23 Befestigen des Heizbetts



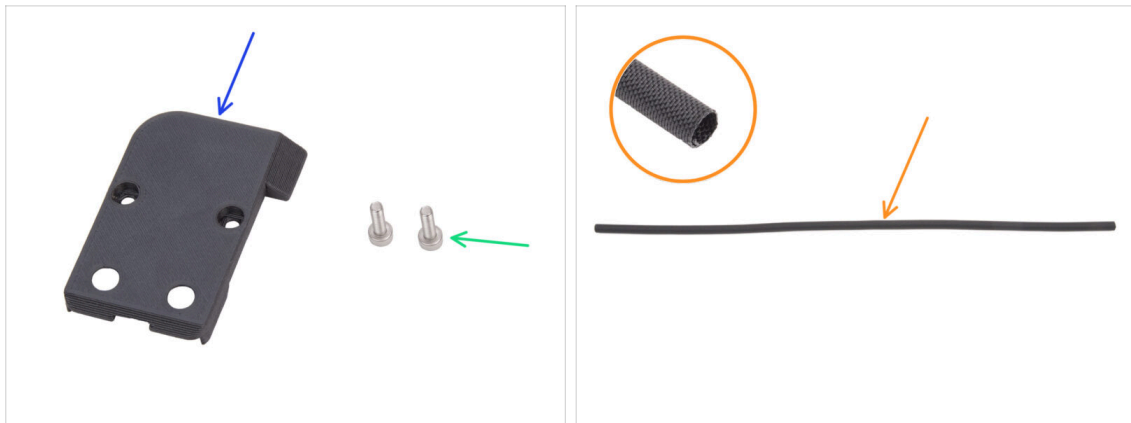
- Place the spacer onto the heatbed carriage on the side with the expansion joints and align it with the hole in the center.
- Put the heatbed on the heatbed carriage and secure it by the M3x12bT. **Do not fully tighten the screw yet.**
  - Make sure the heatbed thermistor cable (the thinnest pair) is routed alongside the heatbed power cables. Do not route it around or across any expansion joints.
- ⚠ **Ensure the correct orientation of the part. Use the heatbed cables as a guide.**
- Insert the M3x4bT screws into the remaining holes in the heatbed. **Do not fully tighten the screws yet.**

## SCHRITT 24 Festziehen des Heizbettes



- ⚠ **IMPORTANT:** The heatbed must be tightened in a specific order. Repeat the sequence multiple times, ensuring the final tightening after at least two rounds.
- After all screws are in place, tighten them in the following sequence:
  - Mittlere Schraube
  - First four screws (edges)
  - Last four screws (corners)
- ⚠ Tighten the screws gently, but firmly.

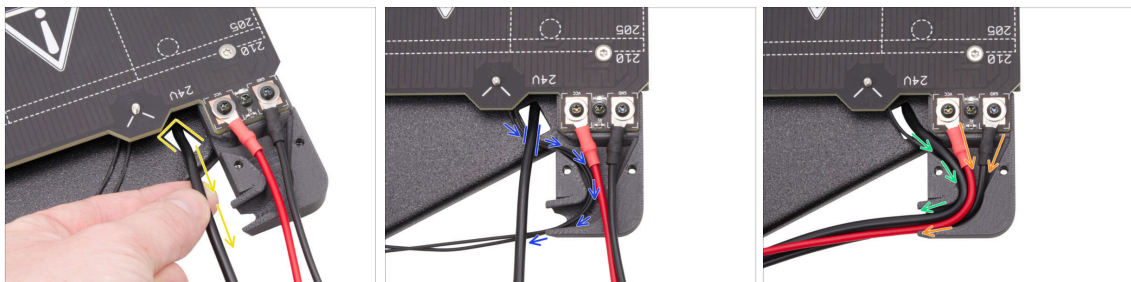
## SCHRITT 25 Abdecken der Kabel: Vorbereitung der Teile



■ **For the following steps, please prepare:**

- CORE-One-bed-cable-cover-top (1x) found in the *Printed parts package*
- Schraube M3x10 (2x)
- Textile sleeve 520 x 8 mm (1x) found in the *Electronics & Chamber parts package*

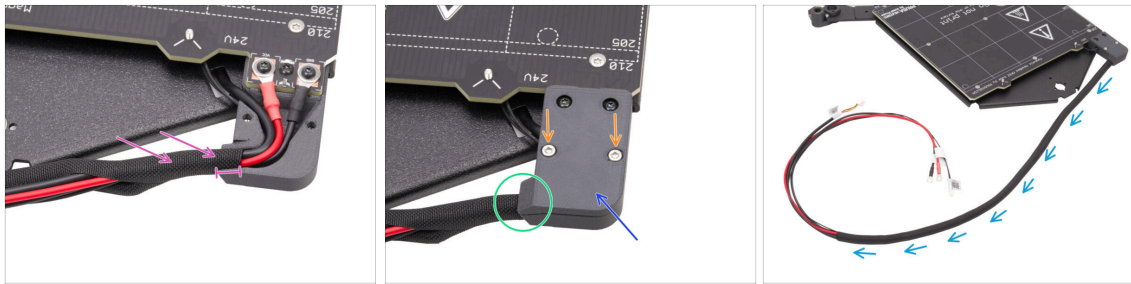
## SCHRITT 26 Guiding the heatbed cables



- Pull the RGB LED strip cable from the bottom through the rectangular cutout to the top.
- Guide the heatbed thermistor cable under the RGB LED cable, and insert the heatbed thermistor cable into the cable channel in the cable cover.
- Route the RGB LED strip cable through the cable channel.
- Guide the heatbed power cables through the cable channel.



## SCHRITT 27 Covering the heatbed cables



- ✦ Thread approximately 5 cm (2 in) of the textile sleeve onto the heatbed cable bundle and slide the textile sleeve 1 cm (0.39 in) into the cable channel.
- ✦ Attach the CORE-One-bed-cable-cover-top on the heatbed cables.
- ✦ Make sure the textile sleeve is still in place - inside the cable cover. **Do not pull on the textile sleeve.**
- ✦ Secure the top cover with two M3x10 screws.
- ✦ Wrap the rest of the textile sleeve around the cable bundle.

## SCHRITT 28 Mounting the heatbed: parts preparation



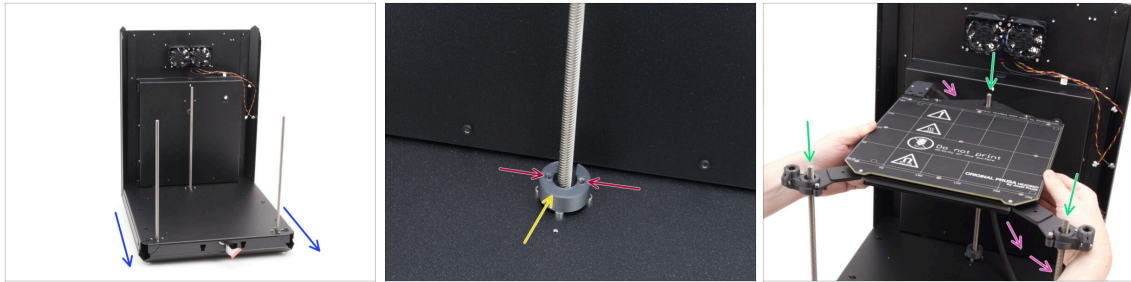
✦ **For the following steps, please prepare:**

✦ Trapezmutter (3x)

ⓘ Two trapezoidal nuts are included in the motors set package, and one nut can be found in the Electronics & Chamber parts package.

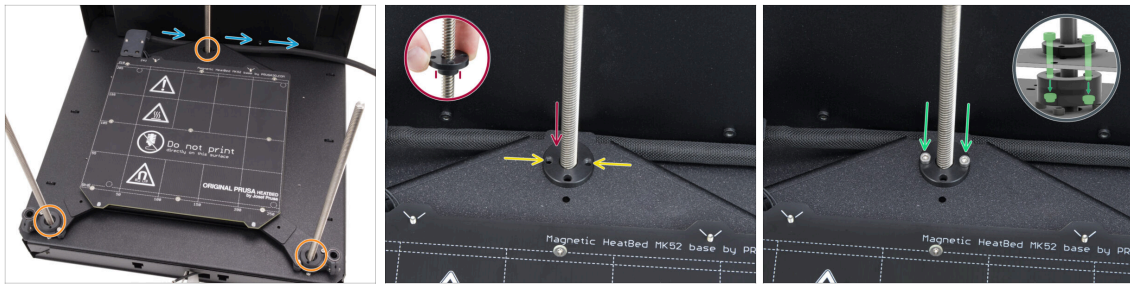
✦ Schraube M3x18 (6x)

## SCHRITT 29 Attaching the heatbed assembly



- Take the back and base assembly and orient the front side towards you.
- Place the CORE-One-bed-spacer-rear onto the rear motor screw heads, making sure it stays in place.
  - ⚠ Note the orientation of the part and holes as shown. The holes must be parallel to the motor screw heads.
- Very carefully thread the heatbed assembly onto the threaded rods of the Z motors, then gently lay it down onto the base.
  - ⚠ Keep in mind that there is a spacer on the rear motor. Avoid the spacer by the heatbed cable.
- Das Heizbettkabel muss **unter dem Heizbett** und **hinter dem hinteren Motor** verlaufen.

## SCHRITT 30 Mounting the heatbed assembly: rear motor



- Ensure the heatbed assembly is seated correctly—all threaded rods pass through the correct holes.
- Double-check that the heatbed cable bundle (textile sleeve) runs properly—it **must go under the heatbed assembly** and **behind the threaded rod** of the rear motor.
- Manually thread the trapezoidal nut onto the rear Z motor. Screw the nut all the way down until it seats into the heatbed carriage.
  - ⚠ Ensure the correct orientation of the part. **The protruding section must face downwards.**
- Align the holes in the trapezoidal nut, carriage and bed-spacer-rear.
  - i Es spielt keine Rolle, welche Löcher Sie in der Trapezmutter verwenden.
  - i Tipp: Sie können einen 1,5-mm-Innensechskantschlüssel durch die Löcher in allen Teilen stecken, um sie auszurichten.
- Befestigen Sie Trapezmutter, Heatbed-carriage und Bed-spacer-rear mit zwei M3x18 Schrauben.

## SCHRITT 31 Mounting the heatbed assembly: front motor left



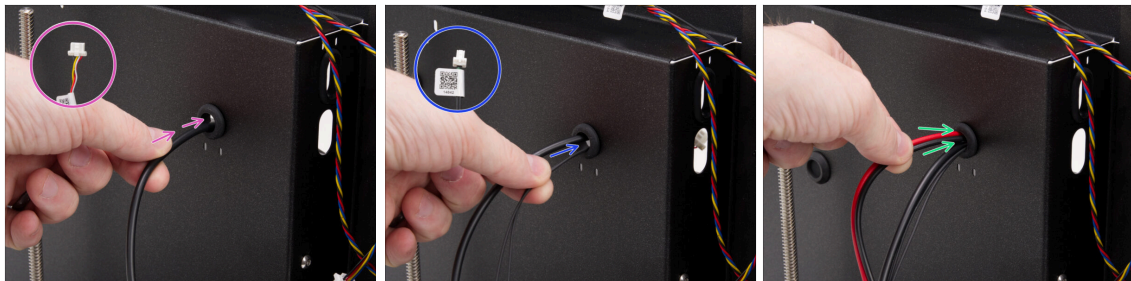
- Manually thread the trapezoidal nut onto the **left** Z motor. Screw the nut all the way down until it seats into the plastic part.
  - ⚠ Ensure the correct orientation of the part. **The protruding section must face downwards.**
- Align the holes in the trapezoidal nut with those in the plastic part. Either pair of holes can be used.
- Secure all the part together with two M3x18 screws.

## SCHRITT 32 Mounting the heatbed assembly: front motor right



- Manually thread the trapezoidal nut onto the **right** Z motor. Screw the nut all the way down until it seats into the plastic part.
- ⚠ Ensure the correct orientation of the part. **The protruding section must face downwards.**
- Align the holes in the trapezoidal nut with those in the plastic part. Either pair of holes can be used.
- Secure all the part together with two M3x18 screws.

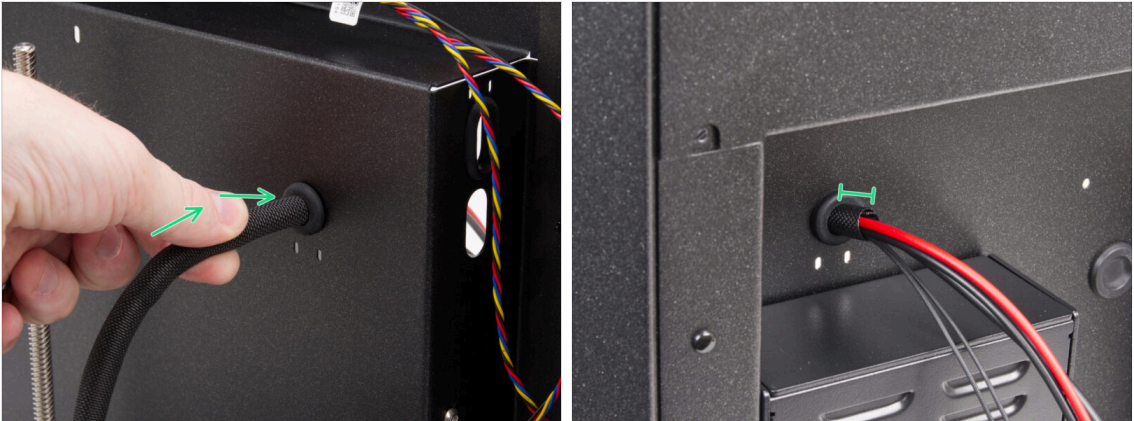
## SCHRITT 33 Attaching the heatbed cables I.



- Locate the grommet hole at the top right of the rear assembly and push the heatbed cables through in the following order:
  - Guide the RGB LED strip cable through the hole first.
  - Route the thermistor cable through the hole.
  - Finally, insert both power cables of the hole.

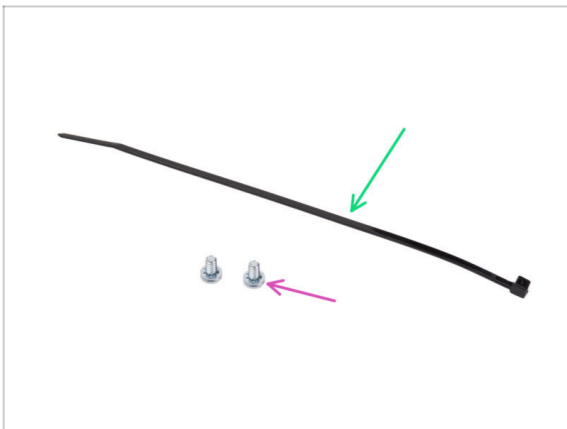


### SCHRITT 34 Attaching the heatbed cables II.



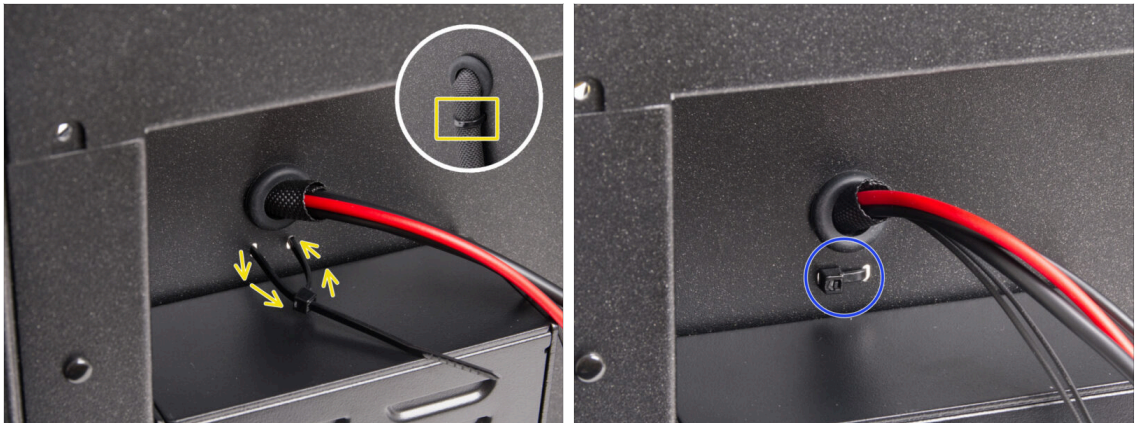
- Push the heatbed cables and the textile sleeve through the grommet hole.
- ⬛ No more than 1 cm (0.39 in) of the textile sleeve should protrude from the back side.

### SCHRITT 35 Securing the heatbed cables: parts preparation



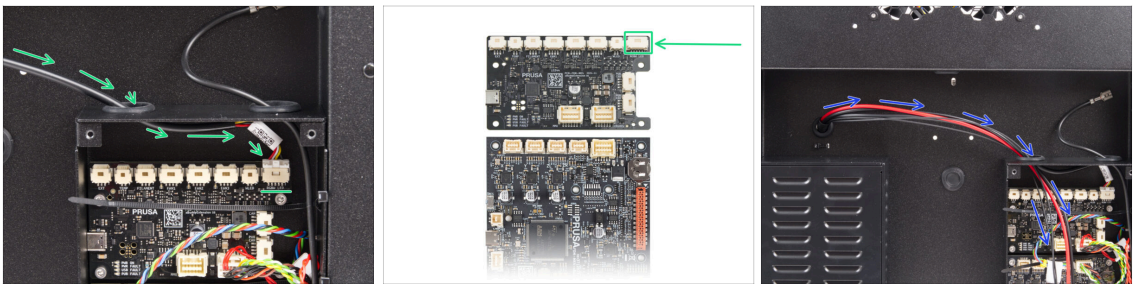
- ⬛ **For the following steps, please prepare:**
- Kabelbinder (1x)
- Power terminal screw 6-32 (2x)

## SCHRITT 36 Securing the textile sleeve



- Guide the zip tie through the two holes under the heatbed cables and make a loop around the heatbed cable bundle (textile sleeve) on the inside.
- Tighten the zip tie firmly and cut off the excess.

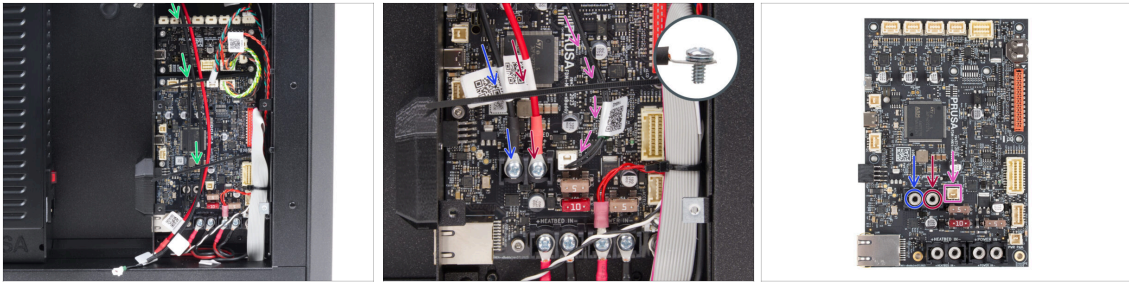
## SCHRITT 37 Guiding the heatbed assembly cables



- Route the RGB LED strip cable through the left hole in the xBuddy box and connect it to the xBuddy Extension board labeled 'RGBW LED.'
- Connect it to the first slot from the right on the xBuddy extension board.
- Guide the heatbed power cables along with the thermistor through the left hole. Leave the cables hanging freely for now.

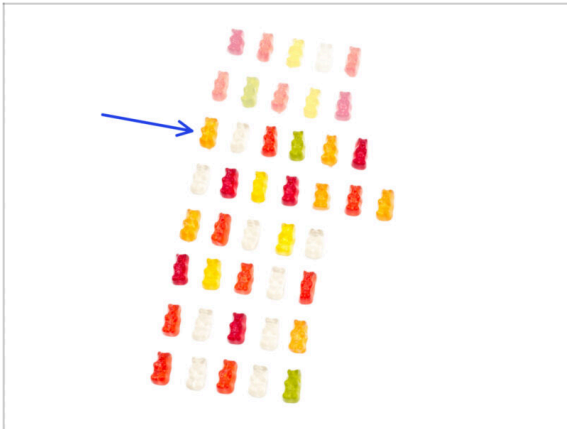


## SCHRITT 38 Connecting the heatbed power cables



- Ensure that none of the heatbed cables run over the zip ties—they must be guided underneath.
- Using the 6/32" terminal screw connect the **black** power cable to the **left** terminal slot on the xBuddy board. Tighten firmly.
- Using the 6/32" terminal screw to connect the **red** power cable to the **right** terminal slot. Tighten firmly.
- Plug the heatbed thermistor connector to the slot next to the power terminals.

## SCHRITT 39 Haribo Zeit!



- Time for another quick energy boost!
- Eat the third row.
  - With one extra treat. You deserve it!

## SCHRITT 40 Abgeschlossen

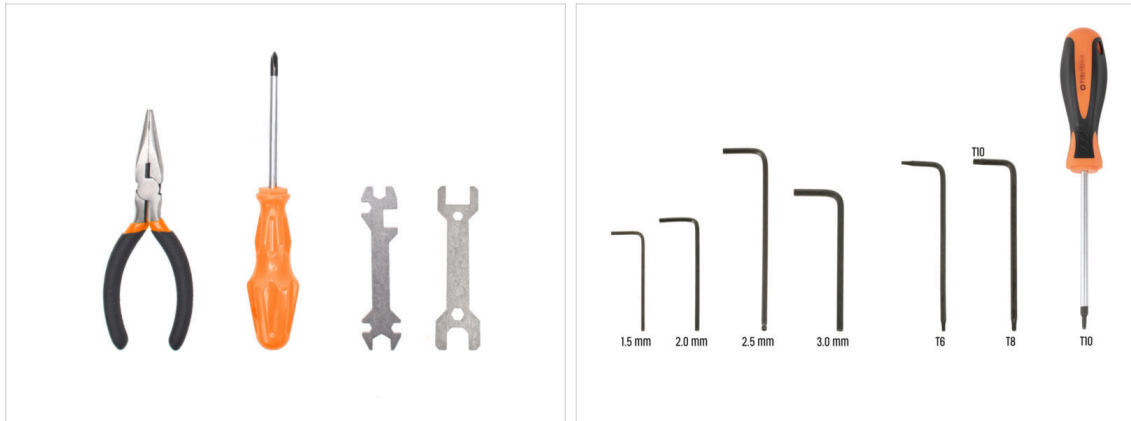


- ◆ Congratulations! You have just assembled and installed the heatbed.
- ◆ Let's go to the next chapter.

## 5. CoreXY Montage



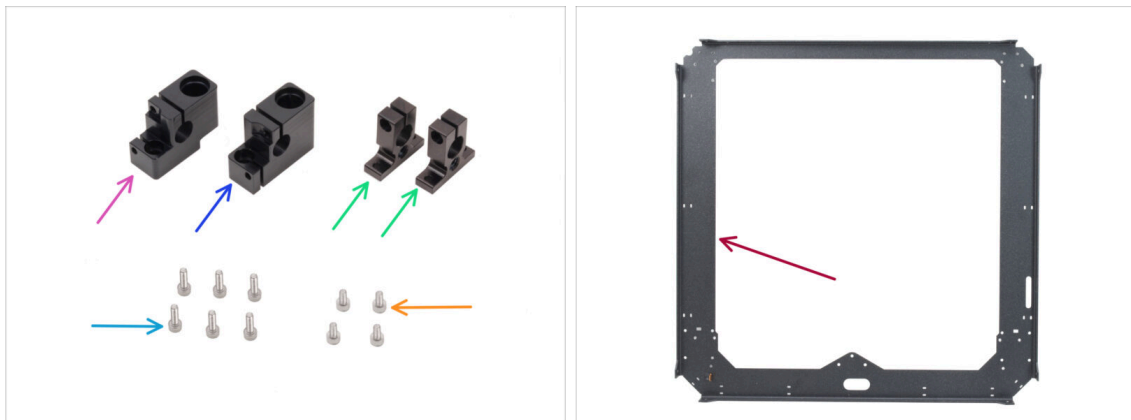
## SCHRITT 1 Tools necessary for this chapter



● For this chapter, please prepare:

- Spitzzange
- 2,0 mm Innensechskantschlüssel
- 2,5mm Innensechskantschlüssel
- T10 torx key / T10 torxy screwdriver

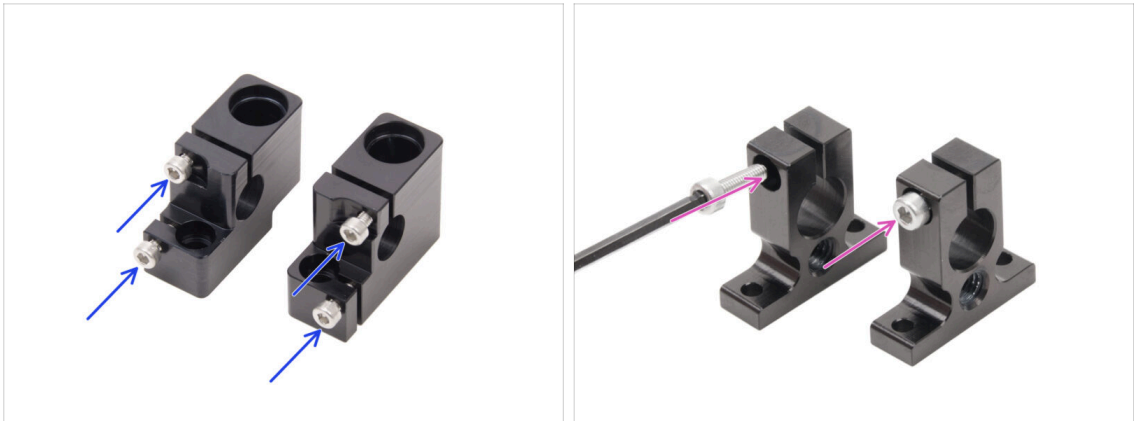
## SCHRITT 2 Rod holders: parts preparation



● For the following steps, please prepare:

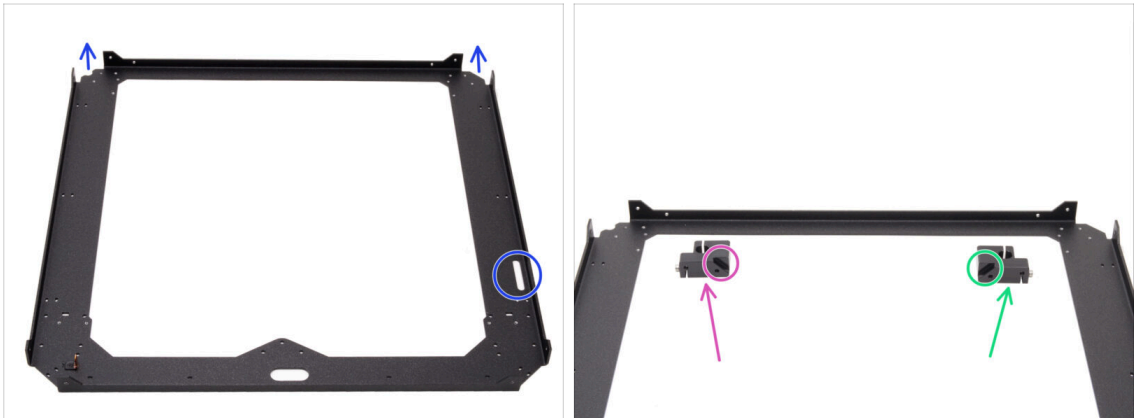
- Rod holder left (1x) *found in the CORE XY parts + hinges + HB set package*
- Rod holder right (1x) *found in the CORE XY parts + hinges + HB set package*
- Rod holder rear (2x) *found in the CORE XY parts + hinges + HB set package*
- Schraube M3x10 (6x)
- Schraube M3x6 (4x)
- CoreXY plate (1x) *found in the Metal parts 1/3 package*

### SCHRITT 3 Assembling the rod holders



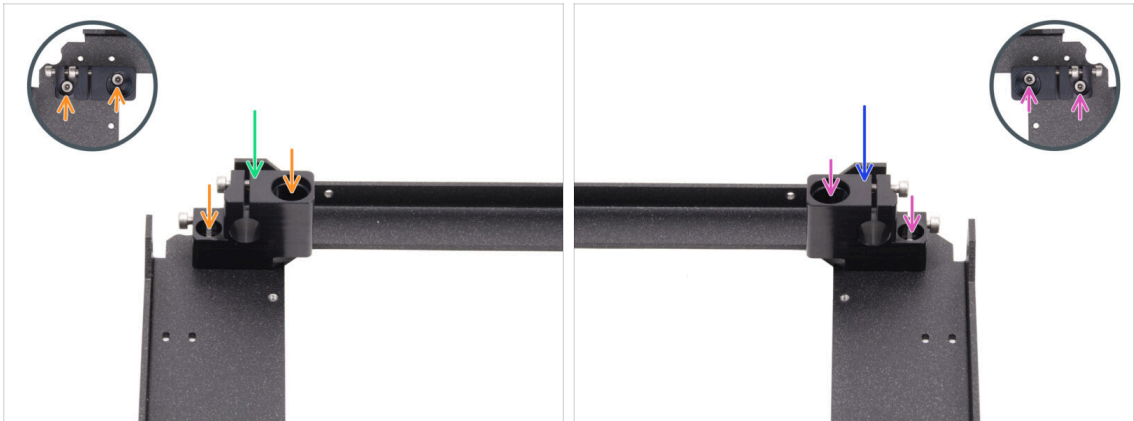
- Insert two M3x10 screws into the Rod holder left and two into the Rod holder right.
- **Do not tighten them completely**, a few turns are enough for now.
- Insert one M3x10 screw into each Rod holder rear. Insert from the **side with the screw head hole**.
- **Do not tighten them completely**, a few turns are enough for now.

### SCHRITT 4 Preparing the front rod holders



- Place the CoreXY plate as shown - the **bent parts of the plate must point upwards**.
- Divide the Rod holder left and the Rod holder right into the sides of the front:
  - ⚠ Ensure you are preparing the correct part for the correct side. Use the chamfers on both parts as a reference for alignment.
  - Rod-holder-left
  - Rod-holder-right

## SCHRITT 5 Installing the front rod holders



- Place the Rod holder left to the left front corner on the corresponding threaded holes.
- Secure it with two M3x6 screws.
- Place the Rod holder right to the right front corner on the corresponding threaded holes.
- Secure it with two M3x6 screws.

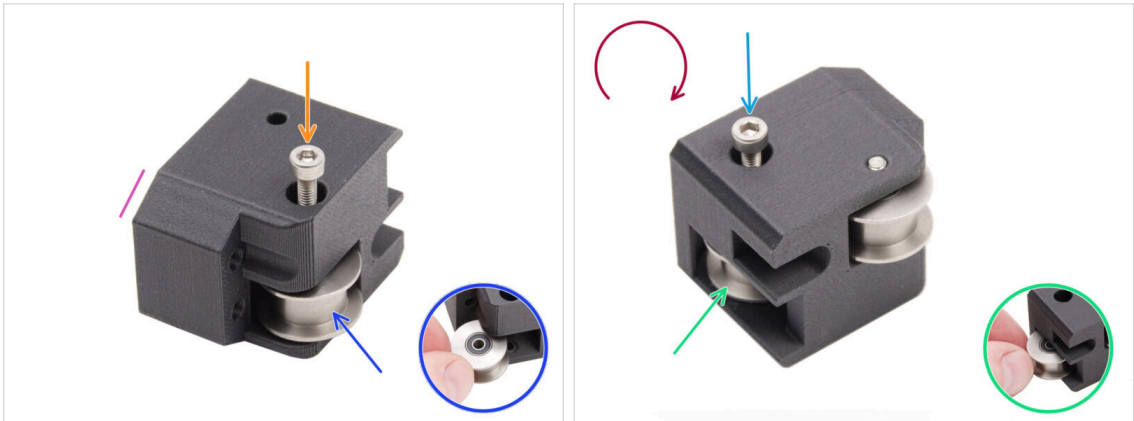
## SCHRITT 6 XY carriage: parts preparation



- For the following steps, please prepare:
- Linear holder left (1x) found in the Metal parts 1/3 package
  - Linear holder right (1x) found in the Metal parts 1/3 package
  - XY-carriage (2x) found in the Printed parts package
  - LM10LUU linear bearing (2x) found in the CORE XY parts + hinges + HB set package
  - GT2-20 Idler pulley (4x) found in the Electronics & Fasteners package
  - M3x8rT black screw (8x)
  - Schraube M3x18 (10x)

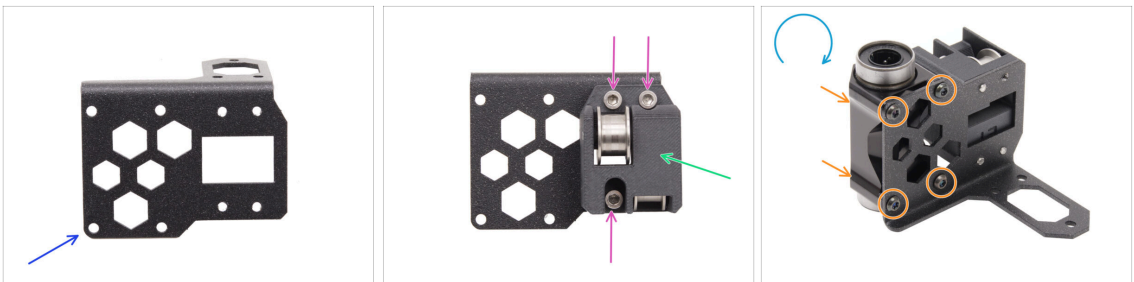


## SCHRITT 7 Zusammenbau der XY-carriages



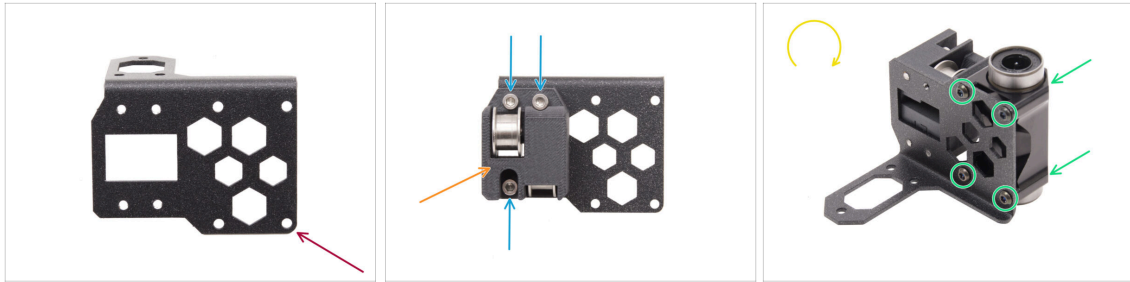
- ✿ Take one of the XY-carriage and orient it as shown. Use the beveled side as a guide.
- Insert the GT2-20 Idler pulley into the XY-carriage.
- Push one M3x18 screw through the pulley and tighten it completely down.
- Turn the part upside down.
- Insert another GT2-20 Idler pulley into the XY-carriage.
- Secure it with the M3x18 screw. Tighten it completely down.
- Repeat the same procedure with the second XY-carriage.

## SCHRITT 8 Assembling the linear holder left



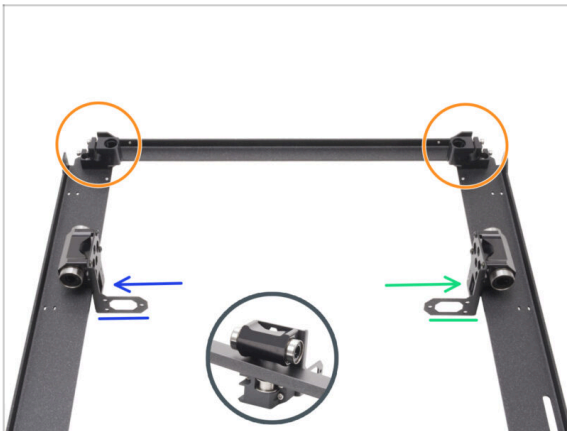
- Prepare the Linear holder **left** and position it as in the picture.
- Attach one of the XY-carriages to the Linear holder.
- ✿ Befestigen Sie ihn mit drei M3x18-Schrauben am Linear-holder.
- Turn the Linear holder upside down.
- From the XY-carriage side, attach the LM10LUU linear bearing to the holder and secure it with four M3x8rT screws.

## SCHRITT 9 Assembling the linear holder right



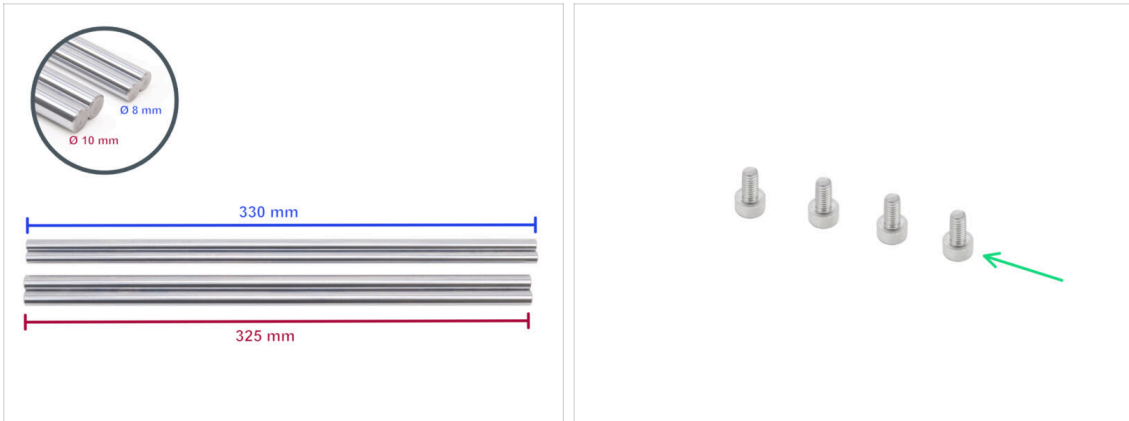
- Prepare the Linear holder **right** and position it as in the picture.
- Attach one of the XY-carriages to the Linear holder.
- Befestigen Sie ihn mit drei M3x18-Schrauben am Linear-holder.
- Turn the Linear holder upside down.
- From the XY-carriage side, attach the LM10LUU linear bearing to the holder and secure it with four M3x8rT screws.

## SCHRITT 10 Attaching the linear holder assemblies



- Position the CoreXY plate as shown in the picture, ensuring the front rod holders are facing up.
- Slightly lift the CoreXY plate and from the plate's inner side loosely attach the Linear holder of the assemblies.
- **Linear-holder-left**
- **Linear-holder-right**
- ① The linear holders are now only loosely seated.

## SCHRITT 11 Glatte Stangen INFO



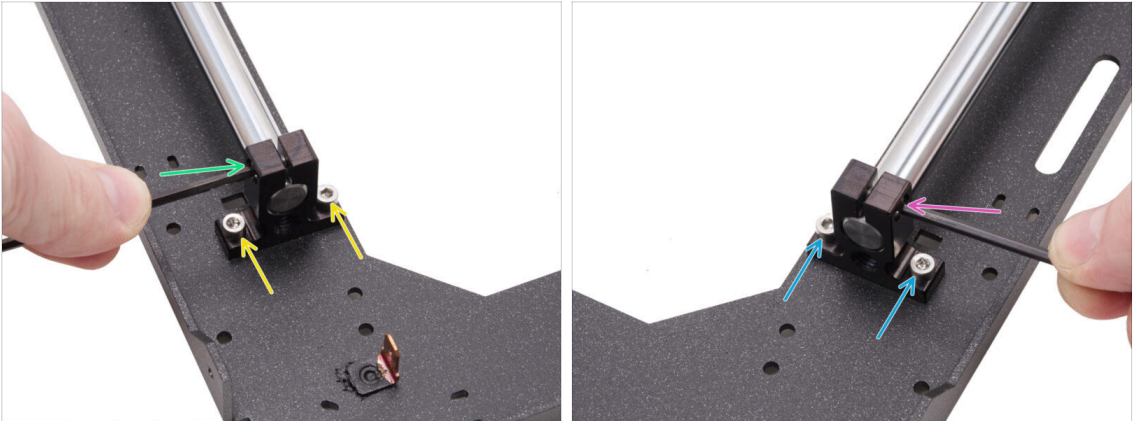
- **There are two different types of smooth rods** in the package. Compare carefully with the picture and prepare the correct ones required.
- ① Smooth rods are included in the Rods box.
  - Smooth rod 330 x 8 mm (2x)
  - Smooth rod 325 x 10 mm (2x) **required for the following steps**
- **For the following steps, please prepare:**
  - Schraube M3x6 (4x)

## SCHRITT 12 Mounting the smooth rods



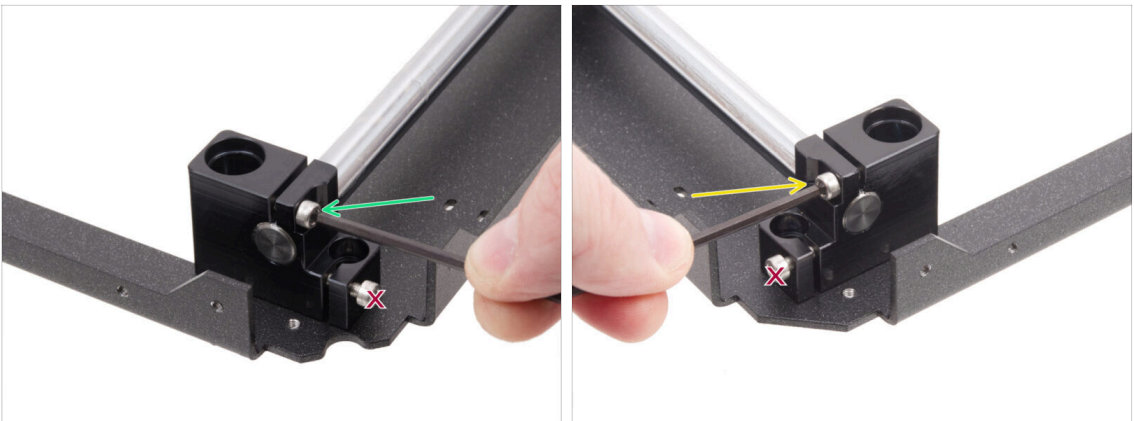
- Slide both rear rod holders onto both 10mm smooth rods.
- Line up the ends of the rods with the holders.
- Push both 10mm smooth rods through the LM10LUU bearing to the front rod holders.
- Make sure the screws on the rear rod holders are pointing out of the frame.
- Line up the front end of the 10mm smooth rods with the front rod holders.

### SCHRITT 13 Securing the rear rod holders



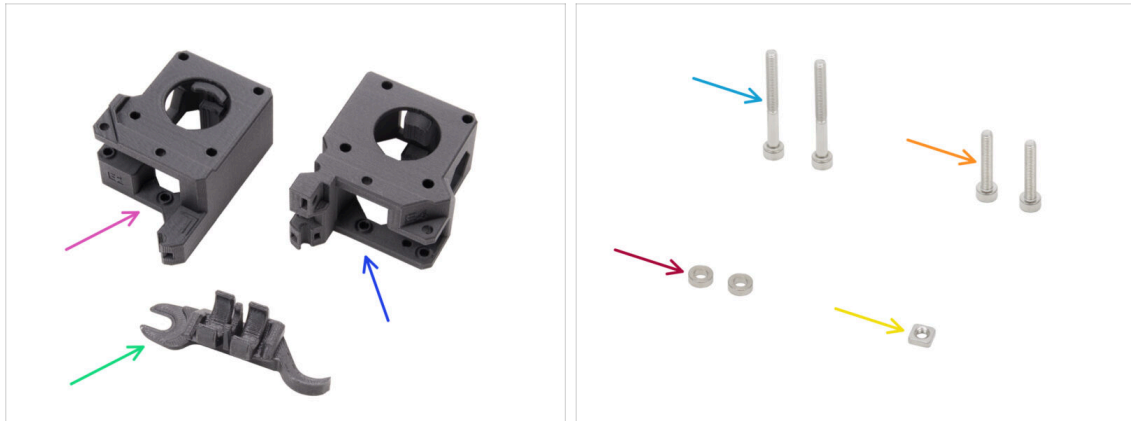
- Line up the left rear rod holder with the threaded holes in the plate.
- Fix it with two M3x6 screws.
- Firmly tighten the screw in the rod holder.
- Line up the right rear rod holder with the threaded holes in the plate.
- Fix it with two M3x6 screws.
- Firmly tighten the screw in the rod holder.

### SCHRITT 14 Securing the front rod holders



- Konzentrieren Sie sich auf die vordere linke Halterung (derzeit rechts) und fixieren Sie die Stange, indem Sie die Schraube in der Halterung anziehen.
- ⚠ **Do not tighten the bottom screw.**
- Konzentrieren Sie sich auf die vordere rechte Halterung (derzeit links) und fixieren Sie die Stange, indem Sie die Schraube in der Halterung anziehen.
- ⚠ **Do not tighten the bottom screw.**

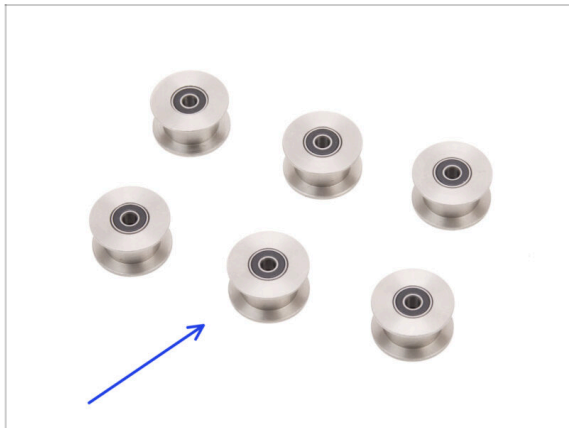
## SCHRITT 15 Motor mounts: parts preparation



● **For the following steps, please prepare:**

- XY-motor-mount-left (1x) *found in the Printed parts package*
- XY-motor-mount-right (1x) *found in the Printed parts package*
- Assembly-multi-tool (1x) *you already used*
- Schraube M3x30 (2x)
- Schraube M3x18 (2x)
- Spacer 3.2/6x2 (2x) *found in the Electronics & Fasteners package*
- M3nS Mutter (1x)
- ⓘ The list continues in the next step...

## SCHRITT 16 Motor mounts: part preparation



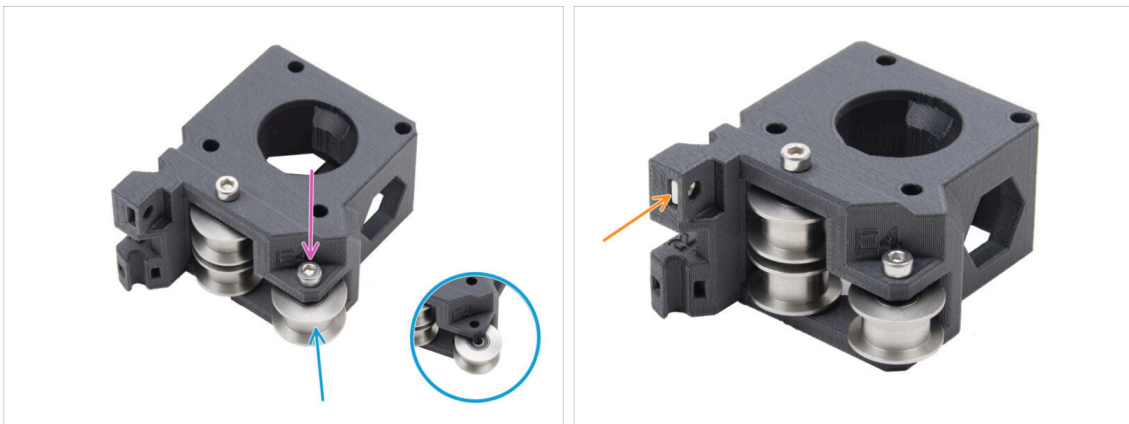
- GT2-20 Idler pulley (6x) *found in the Electronics & Fasteners package*

## SCHRITT 17 Assembling the XY-motor-mount-right I.



- ◆ Setzen Sie eine Riemenscheibe in die untere Position im Assembly-multi-tool ein.
- ◆ Insert the spacer 3.2 on the pulley.
- ◆ Setzen Sie die zweite Riemenscheibe in das Assembly-multi-tool ein.
- ◆ Insert the whole assembly into the XY-motor-mount-right.
  - ◆ Position the part according to the picture. Note the beveled corner.
- ◆ Align holes in both parts and secure it with the M3x30 screw.
  - 📌 Das Kunststoffteil hat kein vorgeschnittenes Gewinde, so dass die Schraube dieses beim Anziehen erzeugt. Ein leichter Widerstand ist zu erwarten.
- ◆ Entfernen Sie das Assembly-multi-tool.

## SCHRITT 18 Assembling the XY-motor-mount-right II.



- ◆ Insert another pulley into the XY-motor-mount-right.
- ◆ Secure it with M3x18 screw.
  - 📌 Das Kunststoffteil hat kein vorgeschnittenes Gewinde, so dass die Schraube dieses beim Anziehen erzeugt. Ein leichter Widerstand ist zu erwarten.
- ◆ Insert the M3nS nut into the XY-motor-mount-right.



## SCHRITT 19 Assembling the XY-motor-mount-left I.



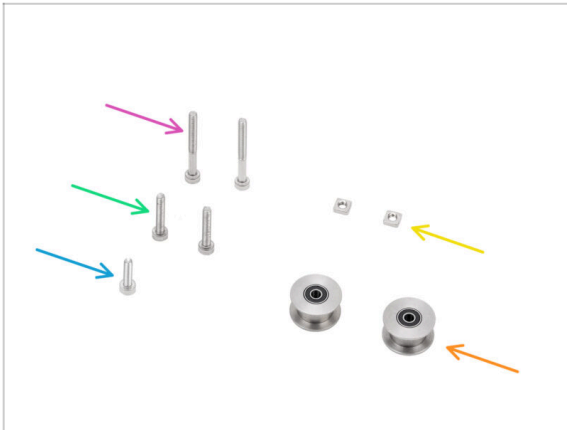
- ✿ Setzen Sie eine Riemenscheibe in die untere Position im Assembly-multi-tool ein.
- ✿ Insert the spacer 3.2 on the pulley.
- ✿ Setzen Sie die zweite Riemenscheibe in das Assembly-multi-tool ein.
- ✿ Insert the whole assembly into the XY-motor-mount-left.
  - ⬛ Position the part according to the picture. Note the bevel next to the screw hole.
- ✿ Align holes in both parts and secure it with the M3x30 screw.
  - ⓘ Das Kunststoffteil hat kein vorgeschchnittenes Gewinde, so dass die Schraube dieses beim Anziehen erzeugt. Ein leichter Widerstand ist zu erwarten.
- ✿ Entfernen Sie das Assembly-multi-tool.

## SCHRITT 20 Assembling the XY-motor-mount-left II.



- ✿ Insert another pulley into the part.
- ✿ Secure it with M3x18 screw. **Do not overtighten the screw.**
  - ⓘ Das Kunststoffteil hat kein vorgeschchnittenes Gewinde, so dass die Schraube dieses beim Anziehen erzeugt. Ein leichter Widerstand ist zu erwarten.

## SCHRITT 21 Belt tensioners: parts preparation I.



For the following steps, please prepare:

GT2-20 Idler pulley (2x) *found in the Electronics package*

Schraube M3x30 (2x)

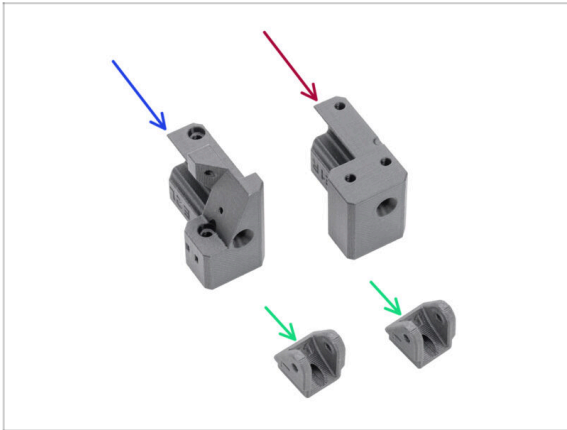
Schraube M3x18 (2x)

Schraube M3x12 (1x)

M3nS Mutter (2x)

**i** The list continues in the next step...

## SCHRITT 22 Belt tensioners: parts preparation II.



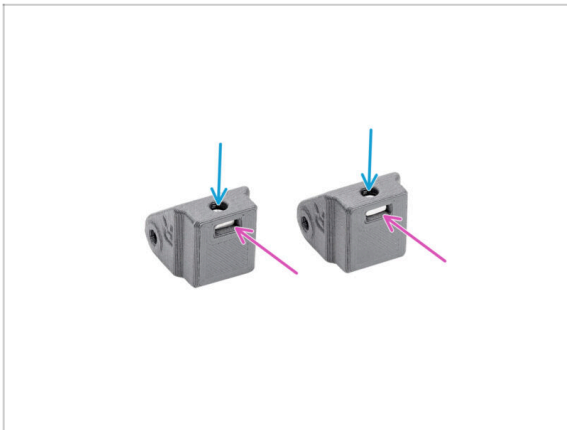
For the following steps, please prepare:

Belt-tensioner-left (1x) *found in the Printed parts package*

Belt-tensioner-right (1x) *found in the Printed parts package*

Belt-tensioner-pulley (2x) *found in the Printed parts package*

## SCHRITT 23 Preparing the tensioner pulleys



- ✦ Insert one M3nS nut into each Belt-tensioner-pulley.
- ✦ Make sure the nuts are correctly inserted into the parts. The holes in the nuts and the parts **must be aligned**.
- ✦ Keep both parts in this position.

## SCHRITT 24 Assembling the belt tensioner left I.



- ✦ Apply a small amount of Prusa lubricant to the tip of both M3x30 screws.
- ✦ Spread the lubricant evenly around the entire thread.
- ⓘ Tip: Use the tip of a zip tie to spread the lubricant.
- ✦ Slide the Belt-tensioner-**left** onto the Belt-tensioner-pulley.
- ✦ **Ensure the parts are oriented correctly**, as shown.
- ✦ Insert the M3x30 screw through the Belt-tensioner-left into the Belt-tensioner-pulley. **Do not tighten completely!** 3-4 turns are sufficient.

## SCHRITT 25 Assembling the belt tensioner left II.



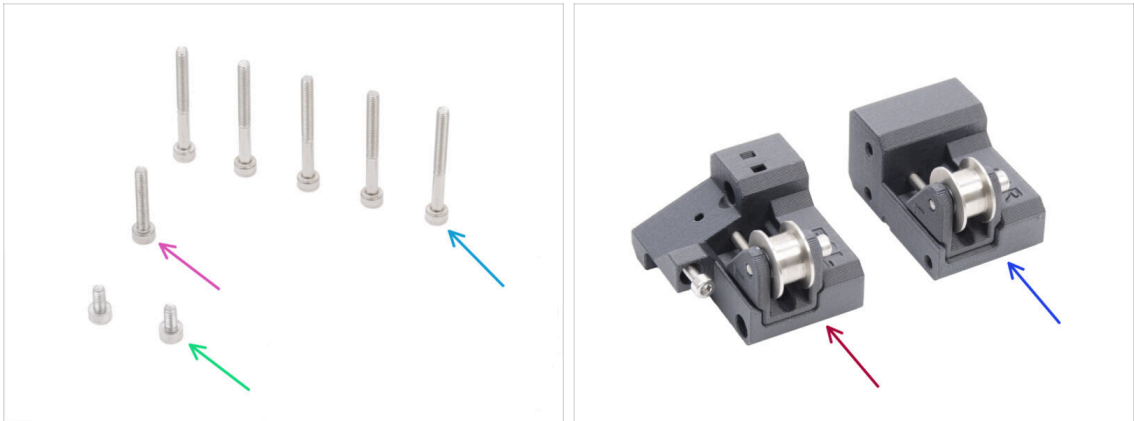
- Insert the GT2-20 Idler pulley into the Belt-tensioner-pulley.
- Secure it with the M3x18 screw.
  - ⓘ Das Kunststoffteil hat kein vorgeschchnittenes Gewinde, so dass die Schraube dieses beim Anziehen erzeugt. Ein leichter Widerstand ist zu erwarten.
- Insert the M3x12 screw into the Belt-tensioner-left. Tighten slightly—five turns are enough. It must not protrude through the other side.
  - ⓘ Note: This screw, referred to as the tensioning screw, will later be used to adjust the door sensor.

## SCHRITT 26 Assembling the belt tensioner right



- Slide the Belt-tensioner-**right** onto the Belt-tensioner-pulley.
  - ⬛ **Ensure the parts are oriented correctly**, as shown.
- Insert the M3x30 screw through the Belt-tensioner-right into the Belt-tensioner-pulley. **Do not tighten completely!** 3-4 turns are sufficient.
- Insert the GT2-20 Idler pulley pulley into the Belt-tensioner-pulley-right.
- Secure it with the M3x18 screw.
  - ⓘ Das Kunststoffteil hat kein vorgeschchnittenes Gewinde, so dass die Schraube dieses beim Anziehen erzeugt. Ein leichter Widerstand ist zu erwarten.

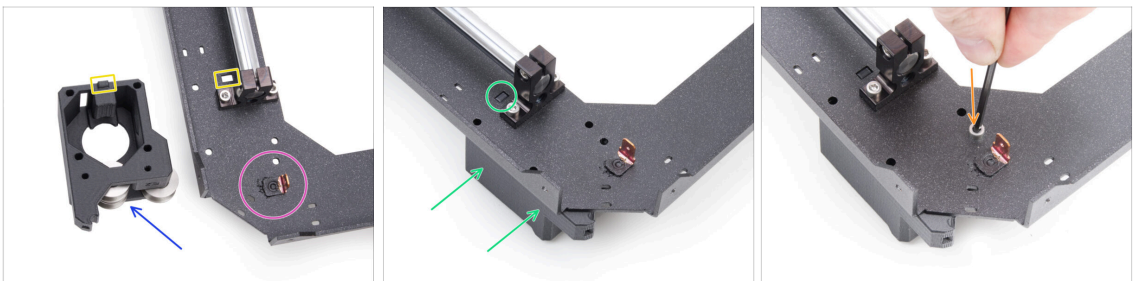
## SCHRITT 27 Installing the belt tensioners: parts preparation



● For the following steps, please prepare:

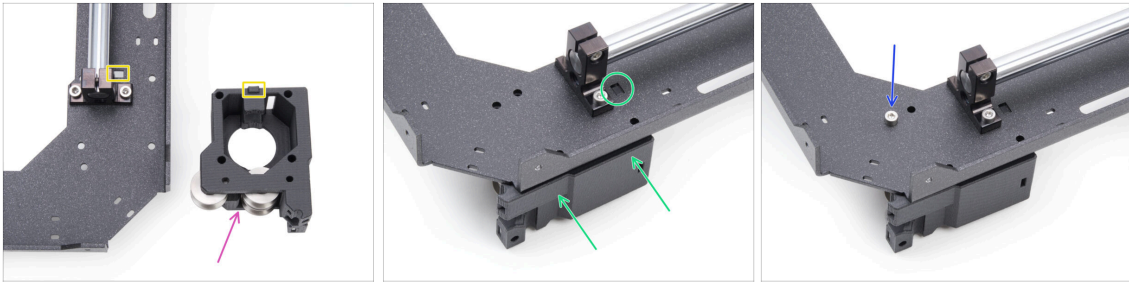
- Schraube M3x30 (5x)
- Schraube M3x18 (1x)
- Schraube M3x6 (2x)
- Belt tensioner left assembly (1x) *you assembled earlier*
- Belt tensioner right assembly (1x) *you assembled earlier*

## SCHRITT 28 Installing the motor mount left



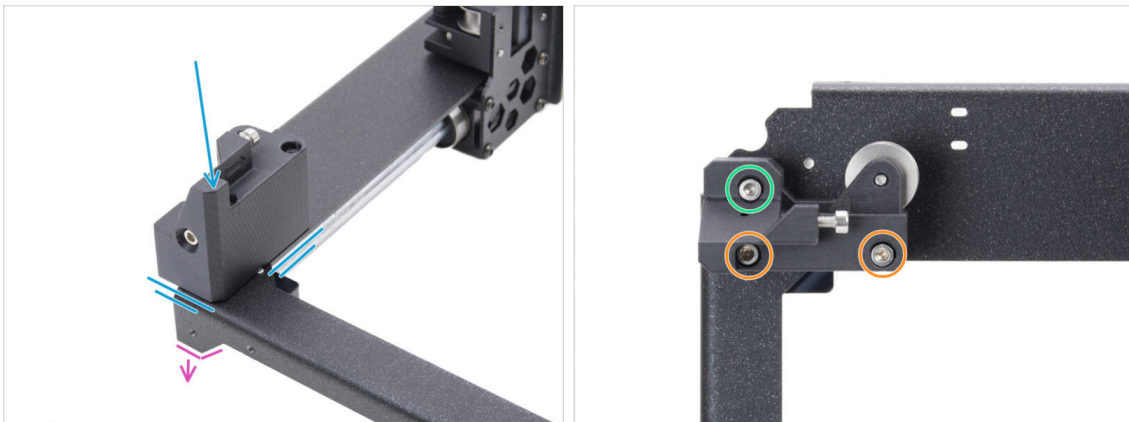
- Locate the corner of the CoreXY plate with the Faston connector on it. It is on the underside of the assembly.
- Position the motor-mount-**left** on the CoreXY plate as shown in the picture.
- Note the rectangular protrusion on the motor-mount-left and the rectangular cutout on the CoreXY plate.
- Slide the motor-mount-left under the CoreXY plate, ensuring the rectangular protrusion fits into the cutout.
- Align the holes in both parts and secure them with an M3x6 screw in the designated hole

## SCHRITT 29 Installing the motor mount right



- ◆ Position the motor-mount-**right** on the CoreXY plate as shown in the picture.
- ◆ Note the rectangular protrusion on the motor-mount-right and the rectangular cutout on the CoreXY plate.
- ◆ Slide the motor-mount-right under the CoreXY plate, ensuring the rectangular protrusion fits into the cutout.
- ◆ Align the holes in both parts and secure them with an M3x6 screw in the designated hole

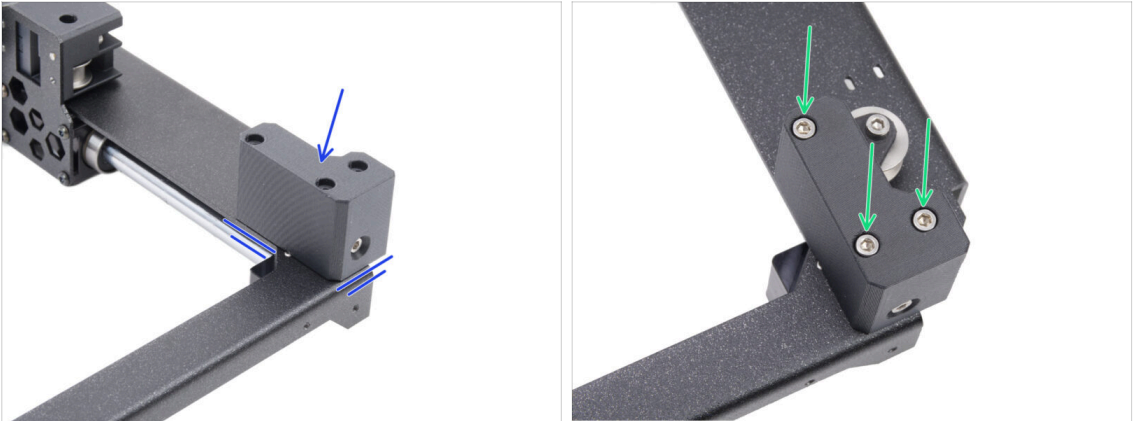
## SCHRITT 30 Installieren des Belt-tensioner-left



- ◆ Turn the CoreXY assembly upside down so that the bent parts face downward. Focus on the front left corner on the assembly.
- ◆ Place the belt-tensioner-**left** assembly in the front left corner of the CoreXY plate. Align it with the front and inner side edges.
- ◆ Line up the holes in both parts.
- ◆ Secure the part with two M3x30 screws.
- ◆ Insert and tighten one M3x18 screw.

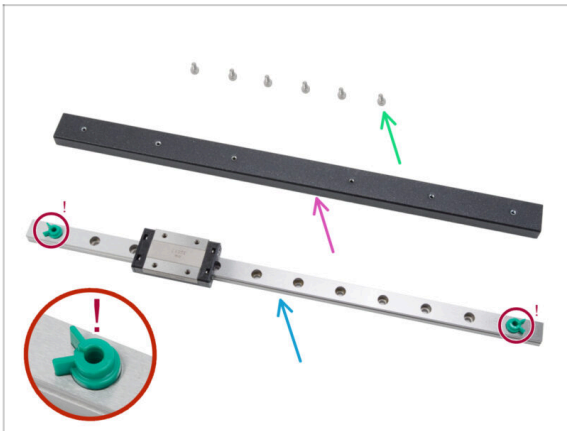


## SCHRITT 31 Installieren des Belt-tensioner-right



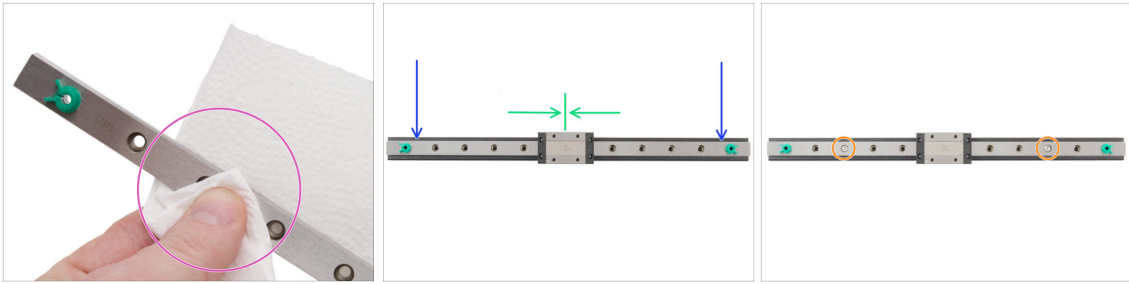
- Place the belt-tensioner-**right** assembly in the front right corner. Align it with the front and inner side edges.
- Line up the holes in both parts.
- Secure the part with three M3x30 screws.

## SCHRITT 32 Linear rail: parts preparation



- For the following steps, please prepare:
  - Schraube M3x6 (6x)
  - Linear rail beam (1x) *found in the Metal parts 3/3 package*
  - Linear rail (1x) *found in the Electronics & Chamber parts package*
- ⚠ **Under no circumstances remove the green anti-ejection safety pins.** Wait for the prompt in the instructions.
- Piece of cloth or a paper towels to wipe the preservative lubricant from the linear guide.

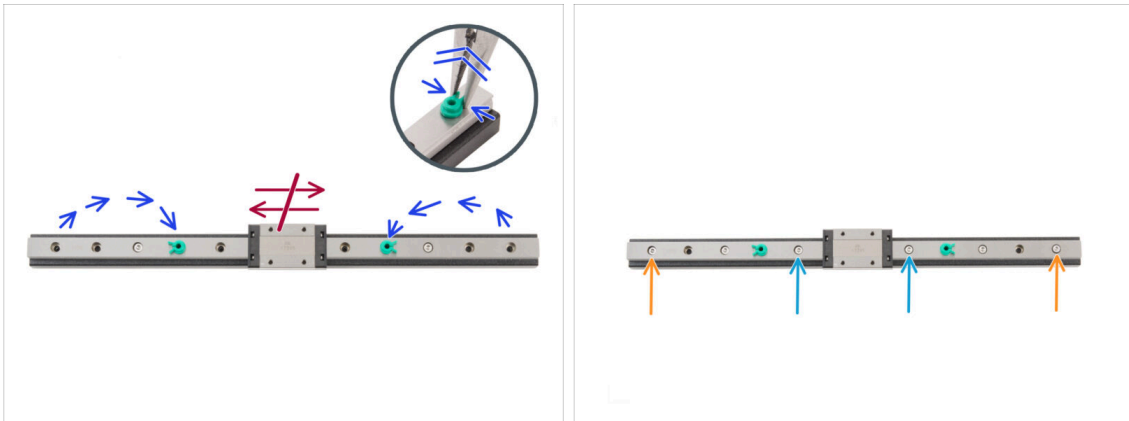
## SCHRITT 33 Attaching the linear rail



**⚠ Under no circumstances remove the green anti-ejection safety pins. Wait for the prompt in the instructions.**

- ✎ Immediately after removing the linear guide from the package, wipe off the preservative lubricant with a paper towel.
- ⬢ Attach the linear rail on the linear rail beam and line up the holes in both parts.
- ⬢ Insert and slightly tighten two M3x6 screws into the third holes from both ends.
- ⬢ Move the linear carriage approximately to the center of the rail.

## SCHRITT 34 Securing the linear rail

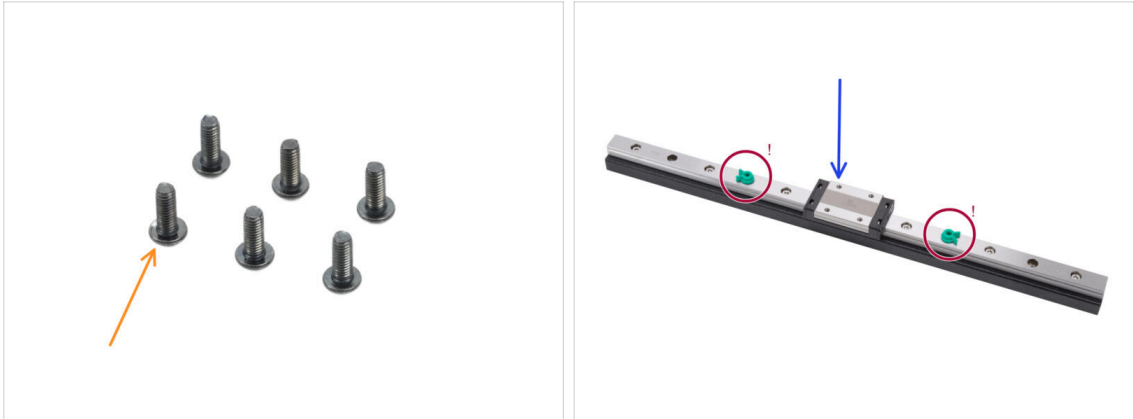


**⚠ Do not move the linear carriage in any way in this step.**

- ⬢ Relocate the safety pins from each end to the fourth holes from the ends of the linear rail.
- ⬢ Gently squeeze the safety pin with needle-nose pliers and pull it out.
- ⬢ Insert two M3x6 screws into the fifth holes from the ends of the rail. **Tighten just slightly.**
- ⬢ Insert two M3x6 screws into the first holes in the rail. **Tighten just slightly.**

**⚠ Do not remove the safety pins from the rail.**

## SCHRITT 35 Installing the linear rail: parts preparation



For the following steps, please prepare:

Schraube M3x8rT (6x)

**i** There are both M3x8rT and M3x8 screws in the kit. Make sure you have prepared the correct ones.

Linear rail assembly (1x) *you assembled earlier*

**!** Do not remove the safety pins.

## SCHRITT 36 Installing the linear rail assembly



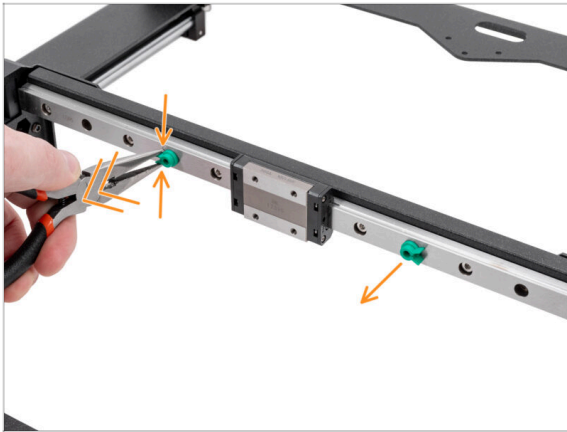
Position the assembly with the motor mounts facing you.

Move both linear holders approximately to the center of the Y-axis.

Attach the linear rail assembly to the holders from the front side of the assembly.

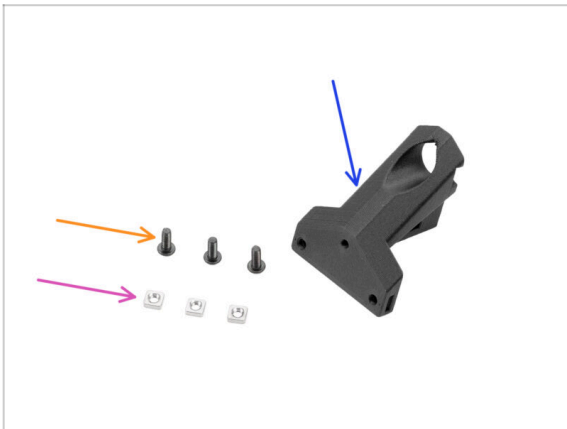
Secure it with three M3x8rT screws from the back side on both the left and right sides.

## SCHRITT 37 Linear rail: removing the safety pins



- Gently squeeze both safety pins with needle-nose pliers and pull them out of the linear rail.
- i You can discard the safety pins as they are no longer needed.

## SCHRITT 38 Bed-stop: Vorbereitung der Teile



- **For the following steps, please prepare:**
- Bed-stop-rear (1x) *found in the Printed parts package*
- M3nS Mutter (3x)
- Schraube M3x8rT (3x)

## SCHRITT 39 Zusammenbau des Bed-stop



- Insert two M3nS nuts into the bed-stop from one side.
- Insert one M3nS nut into the bed-stop from the other side.

## SCHRITT 40 Anbringen des Bed-stop



- Position the CoreXY assembly as shown, ensuring the motor mounts face upwards.
- Focus on the triangle protrusion on the metal part.
- Insert the bed-stop-rear **under** the protrusion at the back of the CoreXY plate.
- Align all three holes in both parts.
- Secure both parts together with three M3x8rT screws.
- i** The upper screw is screwed into plastic with no pre-cut thread. It cuts the thread as it's tightened. Slight resistance is expected.

## SCHRITT 41 X&Y motors: parts preparation



- For the following steps, please prepare:
- Y-axis motor (1x) *found in the Motors package*
- X-axis motor (1x) *found in the Motors package*
- i** Note that the motors are marked as X and Y-axes in order to distinguish between them. We will continue to follow this marking.
- Pulley T16-2GT (2x) *found in the Electronics package*
- Assembly-multi-tool (1x) *you already used*

## SCHRITT 42 Installing the X-axis pulley



- ⬢ Prepare the **X-axis** motor.
- ⬢ Note the flat part on the motor shaft.
- ⚠ Slide the Pulley on, **note the CORRECT orientation.**
- ⬢ Rotate the motor shaft with the flat part facing you.
- ⬢ Using the fork on the Assembly-multi-tool set a gap between the pulley and the motor.
- ⬢ Push the pulley on the tool and firmly tighten the screw against the flat part on the shaft.
- ⬢ Rotate the pulley and firmly tighten the second grub screw.
- ⚠ Double-check the pulley orientation. **The toothed side of the pulley must be on the motor side.**

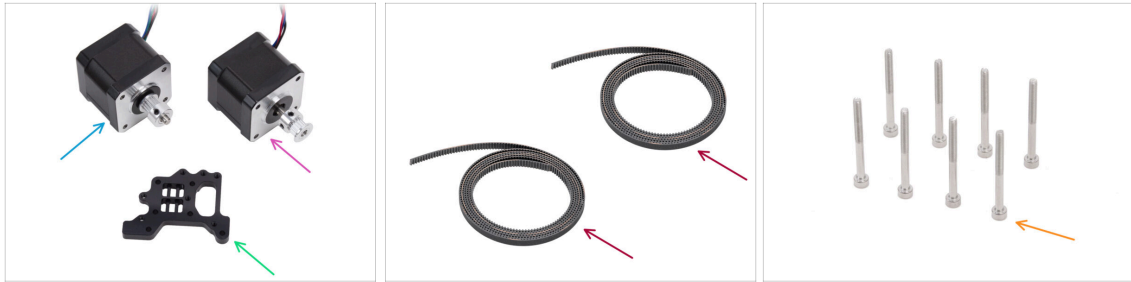


## SCHRITT 43 Installing the Y-axis pulley



- Prepare the **Y-axis** motor.
- Note the flat part on the motor shaft. Rotate the motor shaft with the flat part facing you.
- ⚠ Slide the Pulley on, and **note the CORRECT orientation. The Y-axis pulley orientation is DIFFERENT from the X-axis.** Make sure the pulley teeth face away from the motor. Use the wider hook on the assembly tool.
- Using the hook on the Assembly-multi-tool, place the thicker curved part between the pulley and the motor.
- ⚠ **Do not try to hook it around the shaft.** Just rest the tool against the motor and make sure the hook tip slides between the motor and the pulley.
- Push the pulley on the tool and firmly tighten the screw against the flat part on the shaft.
- Rotate the pulley and firmly tighten the second grub screw.
- ⚠ **Double-check the pulley orientation. The teeth must face away from the motor.**

## SCHRITT 44 XY belts: parts preparation



■ For the following steps, please prepare:

- X-axis motor assembly (1x) you assembled earlier
- Y-axis motor assembly (1x) you assembled earlier
- Nexttruder holder (1x) found in the CORE XY parts + hinges + HB set package
- XY belt (2x) found in the CORE XY parts + hinges + HB set package
- Schraube M3x35 (8x)

## SCHRITT 45 XY Riemen INFO

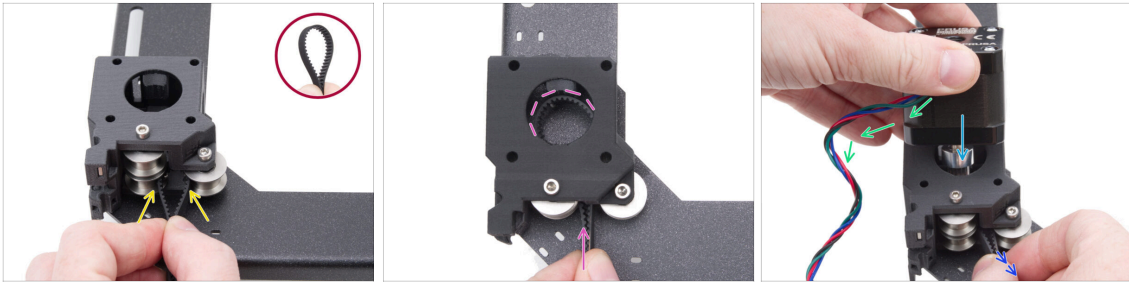


ⓘ The next steps cover belt installation and guiding on the core XY assembly. Before starting, refer to the illustration for an overview and better understanding of each belt's path.

- X-axis belt - at the **top position**
- Y-axis belt - at the **bottom position**

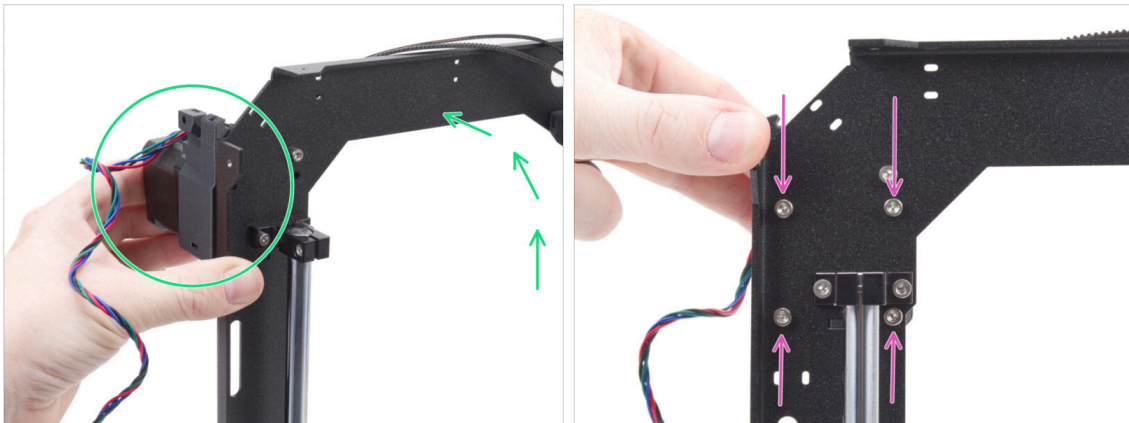
■ Let's guide the belts step by step...

## SCHRITT 46 Y belt guiding: Y motor pulley



- From the back of the CoreXY, focus on the motor-mount on the **left** side.
- Create a loop anywhere on the belt so the **belt teeth are pointing inside** the loop.
- Push this loop through the space between the lower pulleys inside the motor mount.
- Push through enough to make the loop follow the top round hole of the motor-mount as closely as possible.
- Insert the **Y** motor into the motor holder, the pulley must be in the middle of the belt loop.
- Insert the Y motor pulley into the motor mount, ensuring the pulley is centered within the belt loop.  
Fully attach the motor to the motor-mount with the motor cable facing you.
- Pull lightly on the belt loop to encircle the pulley.

## SCHRITT 47 Securing the Y-axis motor



- Firmly grasp the Y-axis motor assembly and position the CoreXY assembly vertically. **Do not drop the motor!**
- ⚠ Be careful not to pull the entire belt out of the motor.
- Keep holding the motor with one hand. With the other hand, secure the motor using four M3x35 screws on the underside of the frame. **Tighten firmly.**
- Place the CoreXY assembly back into the horizontal position.

## SCHRITT 48 Y belt guiding: Y motor mount



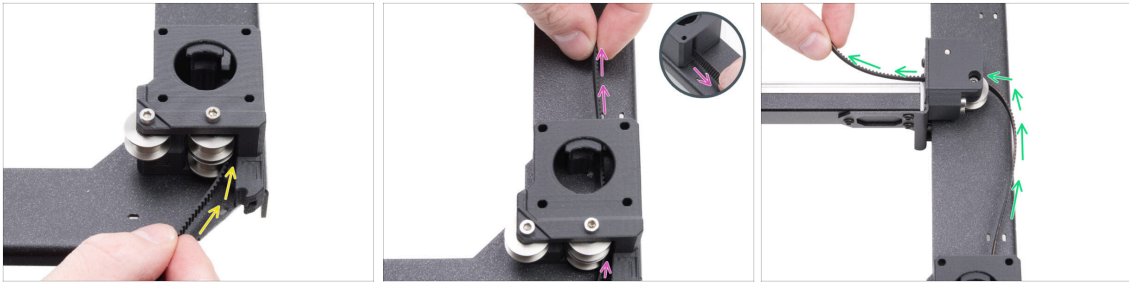
- 🟠 Guide the left end of the belt around the lower left pulley.
- 🟡 Push the belt through the part and guide it to the front of the CoreXY plate.
- ⚠️ **Don't pull too long so you don't pull the whole belt out.** Remember that the other end is loose. The whole process would then have to be repeated.

## SCHRITT 49 Y belt guiding: belt tensioner



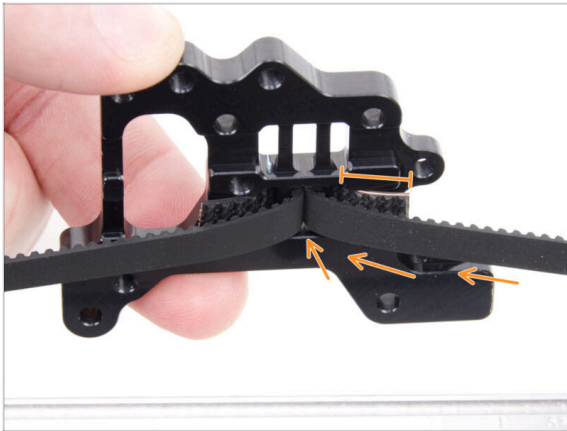
- 🟠 Führen Sie den Riemen um die Riemenscheibe im Riemenspanner.
- 🟡 Push the belt around the front pulley in the linear assembly.
- 🟢 Prepare the Nextruder holder in the same orientation as in the picture. Note the holes for securing the belts.
- 🟢 Push the end of the belt through the middle hole into the left hole in the bottom row - leave 4-5 teeth sticking out.
- 📄 The belt is secured on this end. You can leave it free for now.

## SCHRITT 50 Y belt guiding: X motor mount



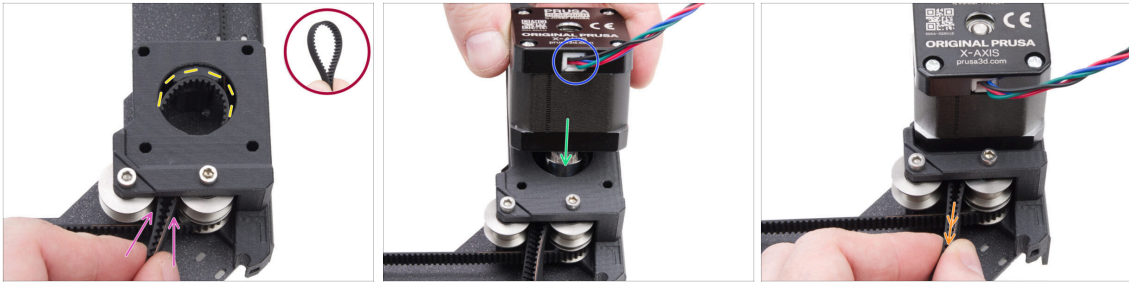
- ◆ Back to the other end of the Y belt.
- ◆ Take the other end of the belt and guide it around the lower pulley in the X motor mount.
- ◆ Push it through the motor mount to the front.
- ◆ Route the belt around the lower right pulley in the linear rail holder.

## SCHRITT 51 Y belt guiding: securing the belt



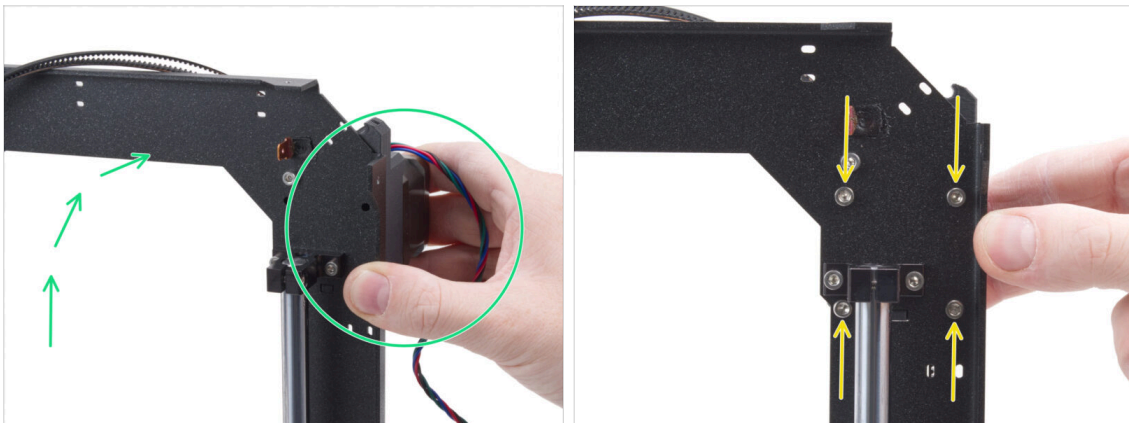
- ◆ Push the end of the belt through the middle hole to the right hole in the bottom row of the Nextruder holder - leave 4-5 teeth sticking out.
- ⓘ If it is difficult to reach the Nextruder holder with the belt, try loosening the belt tensioner screw on the front of the assembly.
- 📌 Don't forget to adjust it back after securing the belt.

## SCHRITT 52 X belt guiding: X motor pulley



- From the back of the CoreXY, focus on the motor-mount on the **right** side.
- Create a loop anywhere on the second belt so the belt teeth are pointing inside the loop.
- Push this loop through the space between the upper pulleys inside the motor mount.
- Push through enough to make the loop follow the top round hole of the motor-mount as closely as possible.
- Insert the **X** motor pulley into the motor mount, ensuring the pulley is centered within the belt loop.
- Ensure the motor cable is facing you (rear).
- Pull lightly on the belt loop to encircle the pulley.

## SCHRITT 53 Securing the X-axis motor



- Firmly grasp the X-axis motor assembly and position the CoreXY assembly vertically. **Do not drop the motor!**
- ⚠ **Achten Sie darauf, dass Sie nicht den gesamten Riemen aus dem Motor ziehen.**
- Keep holding the motor with one hand. With the other hand, secure the motor using four M3x35 screws on the underside of the frame. **Tighten firmly.**
- Place the CoreXY assembly back into the horizontal position.



## SCHRITT 54 Y belt guiding: X motor mount



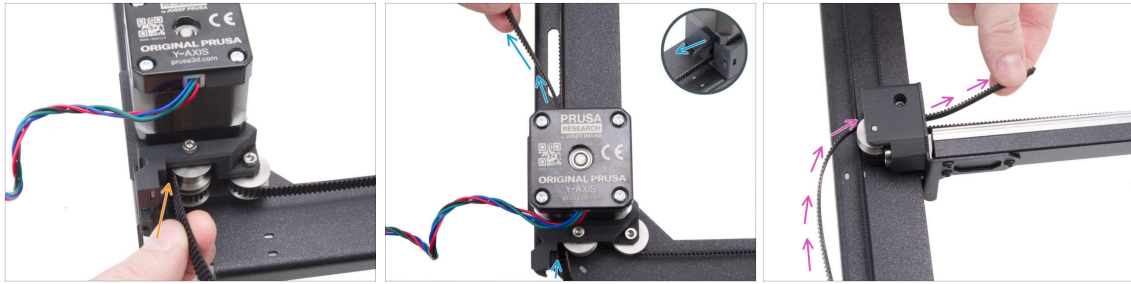
- Guide the right end of the belt around the upper right pulley.
- Schieben Sie den Riemen durch das Teil und führen Sie ihn an die Vorderseite der CoreXY-plate.
- ⚠ **Don't pull too long so you don't pull the whole belt out.** Remember that the other end is loose. The whole process would then have to be repeated.

## SCHRITT 55 X belt guiding: belt tensioner



- Führen Sie den Riemen um die Riemenscheibe im Riementspanner.
- Schieben Sie den Riemen um die vordere obere Riemenscheibe der Lineareinheit.
- Route the end of the belt through the middle hole into the right hole - leave 4-5 teeth sticking out.
- ⓘ The belt is secured on this end. You can leave it free for now.

## SCHRITT 56 X belt guiding: Y motor mount



- Back to the other end of the X belt.
- Nehmen Sie das andere Ende des Riemens und führen Sie ihn um die obere Riemenscheibe in der Y-Motorhalterung.
- Push the belt through the motor mount.
- Route the belt around the upper front pulley in the linear rail holder.

## SCHRITT 57 X belt guiding: securing the belt



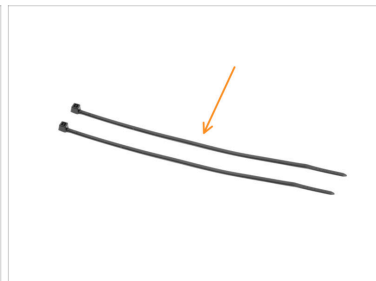
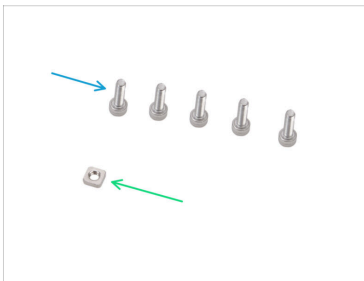
- Push the end of the belt through the middle hole to the left hole in the upper row of the Nextruder holder - leave 4-5 teeth sticking out.

## SCHRITT 58 Checking the belt guidance



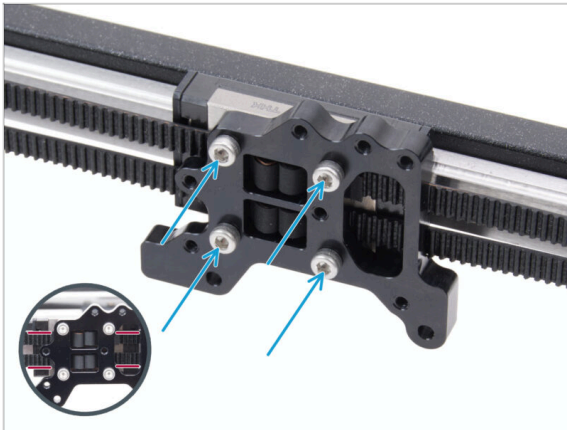
Before proceeding, recheck the belt routing according to the illustration.

## SCHRITT 59 Bowden guide: parts preparation



- **For the following steps, please prepare:**
- Bowden-guide (1x) *im Paket „Printed parts“ enthalten*
- Schraube M3x10 (5x)
- M3nS Mutter (1x)
- Kabelbinder (2x)

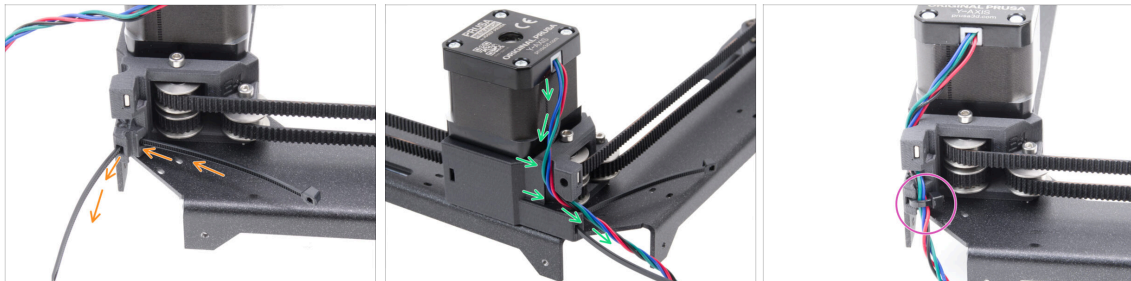
## SCHRITT 60 Securing the Nextruder holder



- Attach the Nextruder holder to the linear rail carriage and secure it using four M3x10 screws.

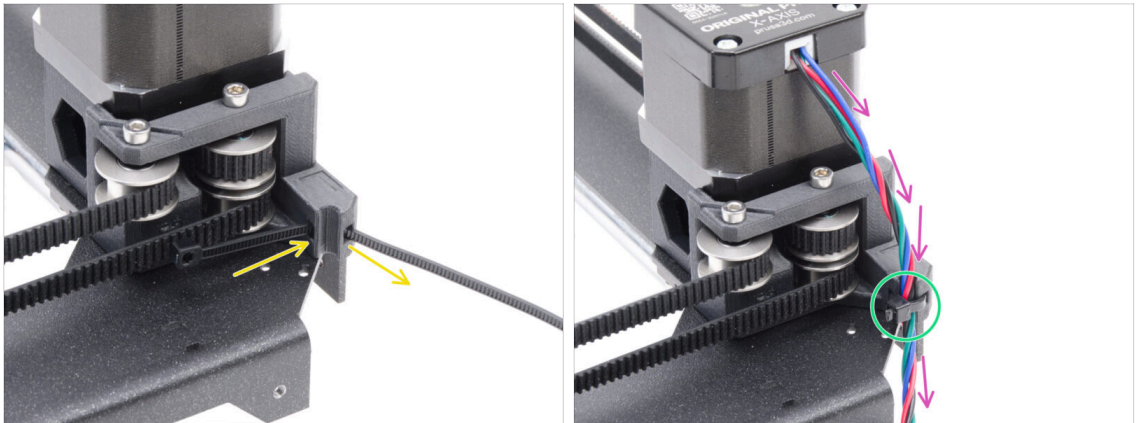
**⚠ ACHTUNG: Stellen Sie sicher, dass kein Riemen die Schraube behindert. Schrauben Sie nicht durch den Riemen!**

## SCHRITT 61 Securing the Y motor cable



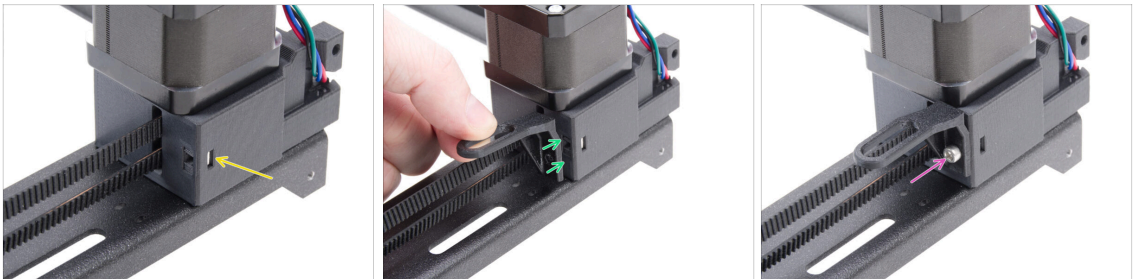
- Push the zip tie through the motor-mount-right.
- Führen Sie das Y-Motorkabel durch den Kabelkanal in der Motor-mount-right und über den Kabelbinder.
- Secure the cable with a zip tie and trim the excess.

## SCHRITT 62 Befestigen des X-Motorkabels



- Push the zip tie through the motor-mount-left.
- Führen Sie das X-Motorkabel durch die Kabelführung im Motor-mount-left und über den Kabelbinder.
- Secure the cable with a zip tie and trim the excess.

## SCHRITT 63 Installieren der Bowdenführung



- Insert the M3nS nut into the motor-mount-right.
- Bringen Sie den Bowden-guide an der Motor-mount-right an.
-  **Note the correct orientation of the part.**
- Fix the bowden-guide in place using the M3x10 screw.

## SCHRITT 64 Weißer LED-Streifen: Vorbereitung der Teile



For the following steps, please prepare:

- Weiße LED-Leiste (1x) finden Sie in der Verpackung von Electronics & Fasteners
- CoreXY strut (1x) found in the Metal parts 1/3 package
- i** The part is inserted in a foam cutout and may not be immediately visible at first glance.
- Schraube M3x4rT (2x)

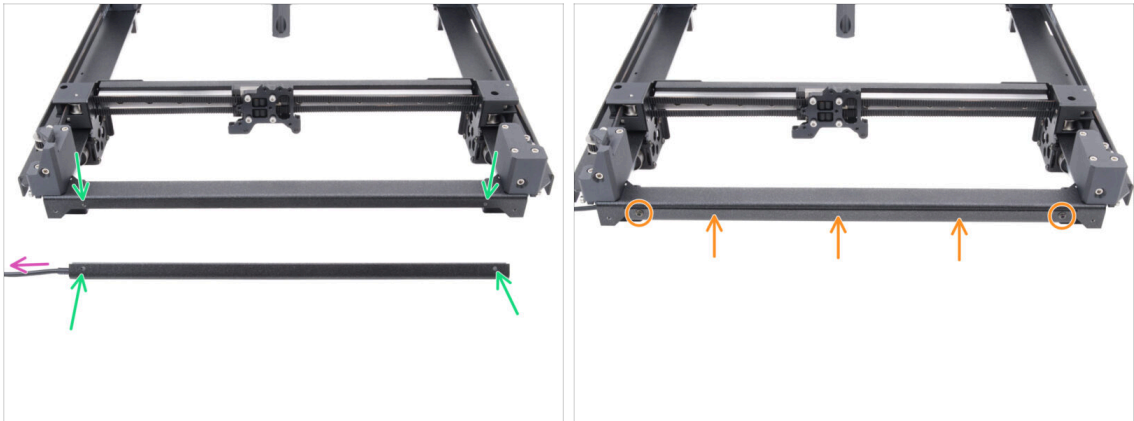
## SCHRITT 65 Aufkleben des weißen LED-Streifens



- Carefully peel off the protective (paper) layer from the White LED strip.
- !** Nach dem Entfernen der schützenden Schicht ist der LED-Streifen selbstklebend.
- Position the White LED strip near the CoreXY strut to check alignment, but **do not attach it yet**.
- !** Note the rectangular cutout on the strut, orient the strip cable to the same side.
- Stick the White LED strip evenly to the strut - on the side with the rectangular cutout.
- After sticking, press lightly on the blank areas of the strip to ensure adhesion. **Do not touch LEDs and resistors!**

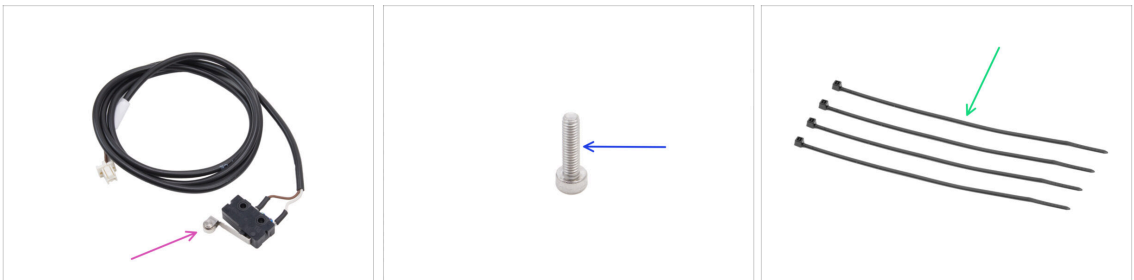


## SCHRITT 66 Installing the white LED assembly



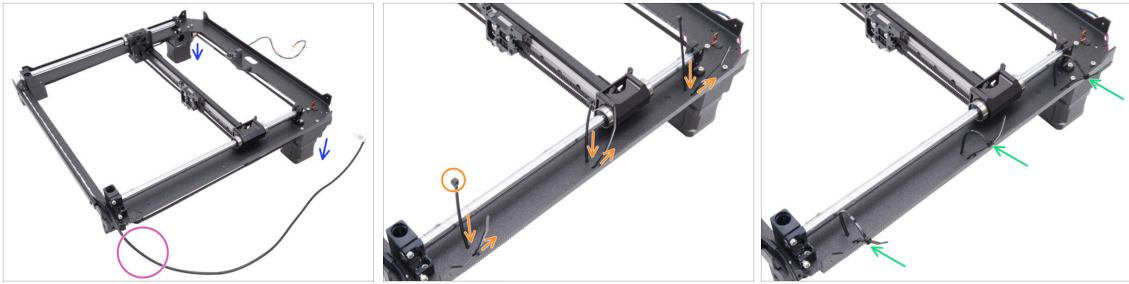
- Take the white LED assembly and attach it to the front of the CoreXY assembly. Align the holes of both parts.
- **Das Kabel der weißen LED-Leiste muss nach links zeigen.**
- Attach the LED assembly to the CoreXY plate and secure it with two M3x4rT screws.

## SCHRITT 67 Door sensor & White LED strip: parts preparation



- **For the following steps, please prepare:**
- Türsensor (1x) *finden Sie in der Verpackung von Electronics & Fasteners*
- M2.5x10 screw (1x) *silver*
- Kabelbinder (4x)

## SCHRITT 68 Inserting the zip ties



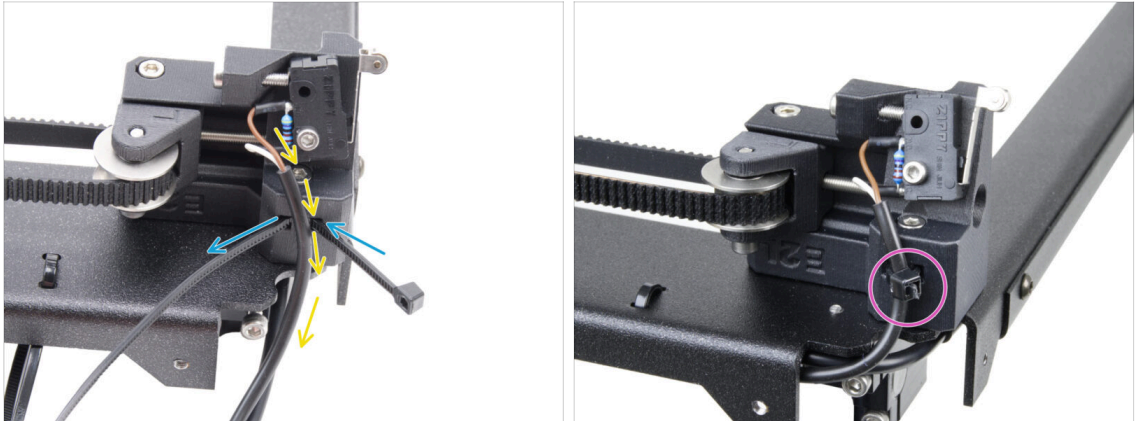
- ◆ Flip the CoreXY assembly upside down and rest it on the motors.
- ◆ Positionieren Sie es so, dass das Kabel des weißen LED-Streifens zu Ihnen zeigt.
- ◆ Thread three zip ties through the CoreXY plate, ensuring the zip tie heads point inward. **Make sure that the zip ties do not catch the belts from the other side.**
- ◆ Partially tighten the zip ties—just enough to catch the first few teeth.
- ⚠ **Do not fully secure them yet, as we will route cables through them later.**
- ◆ Flip the assembly back with the motors facing upwards.

## SCHRITT 69 Installing the door sensor



- ◆ Place the door sensor on the left belt tensioner. The lever of the door sensor must face forward.
- ◆ Befestigen Sie den Türsensor mit der Schraube M2,5x10.
- ◆ Tighten the bolt fully and then loosen 1/4 turn. The sensor must be allowed to move.
- ◆ From the rear of the belt tensioner, tighten the M3x12 screw so that it touches the door sensor.

## SCHRITT 70 Securing the door sensor cable



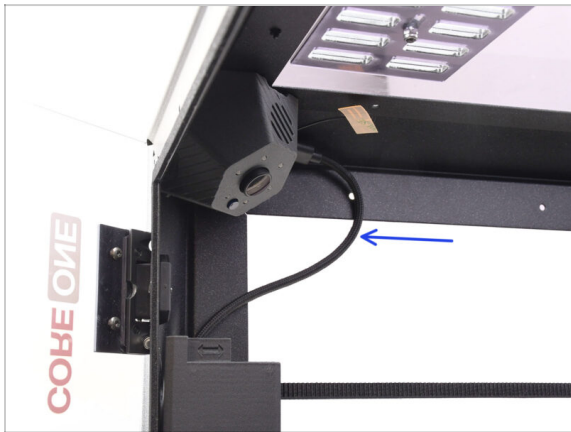
- ➡ Push the zip tie through the hole in the left belt tensioner.
- ➡ Führen Sie das Kabel des Türsensors durch den Kabelbinder.
- ➡ Tighten the zip tie to secure the door sensor cable. Cut off the excess.

## SCHRITT 71 Guiding the cables: LED and door sensor



- ⬛ Prepare a cardboard box. You can use any box from the kit. *The box used in the picture is for illustrative purposes only.*
- ➡ Drehen Sie die CoreXY-Baugruppe auf den Kopf und legen Sie die glatten Stangen oben auf.
- ➡ Slightly lift and support the front side of the CoreXY assembly with the cardboard box.
- ⚠ **Be careful not to damage the door sensor.**
- ➡ Route the white LED strip cable and the door sensor cable through the zip ties.
- ➡ Tighten all the zip ties to secure the cables. Cut off the excess zip ties.
- ⓘ **If you plan on adding the Buddy camera, do not tighten the zip ties all the way.** As you will be adding another USB-C cable to the zip ties soon.
- ➡ **Cables must be slightly taut and straight.** Excess slack or bends may cause collisions with the Y-axis and lead to damage.

## SCHRITT 72 Buddy3D Kamera Hinweis



- ◆ For future Buddy3D Camera users only. **Skip this step if you are not planning to install the Buddy3D Camera.**

⚠ **Hinweis:** In der Regel muss der Drucker vollständig zusammengebaut und getestet werden, bevor irgendwelche Zusatzgeräte installiert werden können. Wenn Sie sich dafür entscheiden, das Buddy3D Kamera USB-Kabel jetzt zu installieren, sparen Sie später Zeit.



For detailed information on cable placement, refer to the separate guide **Buddy3D Camera for CORE One Installation**

- ◆ Die oben erwähnte Anleitung zur Installation der Buddy3D Kamera zeigt den Drucker in einem fortgeschrittenen Stadium der Montage.
- ◆ For now, use the guide to make sure that the cable is installed correctly and tighten the zipties.
- ① We will let you know later on when to return to the guide and finish the Buddy camera installation.

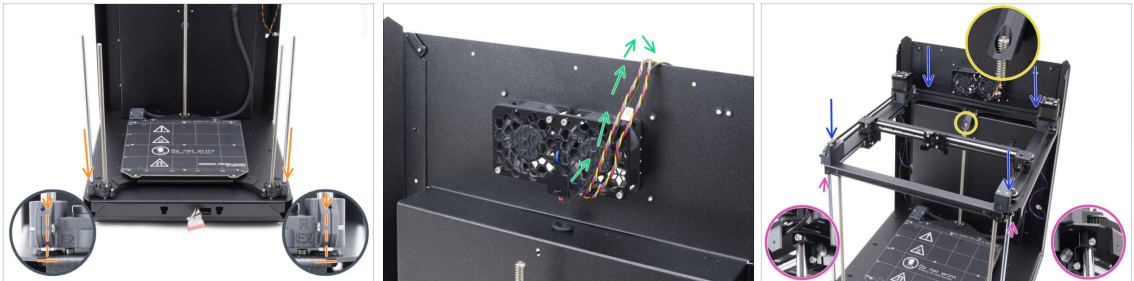
## SCHRITT 73 Smooth rods: parts preparation



For the following steps, please prepare:

- Glatte Stange 330 x 8 mm (2x) zu finden in der Stangen-Box
- Schraube M3x8rT (1x)

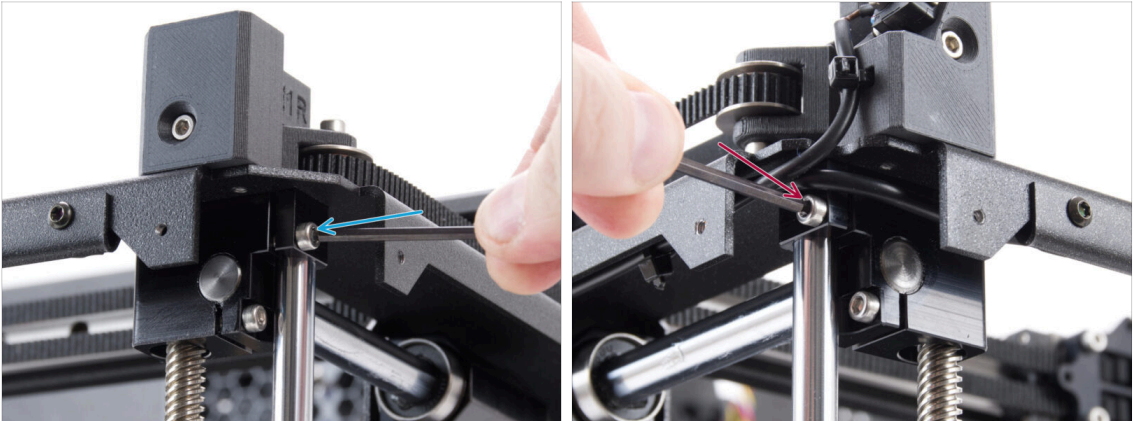
## SCHRITT 74 Installing the CoreXY assembly



- Carefully insert both smooth rods through the heatbed assembly bearings and into the rod mount part in the base assembly.
- ⚠ **Es ist erforderlich, die glatte Stange sehr langsam in die Achse mit dem Lager einzuführen, um zu verhindern, dass die Kugeln aus dem Lager herausspringen.**
- Temporarily hang the cables from the cooling fans over the rear panel. **There must be a space between the cables and the back panel pocket.**
- Seien Sie äußerst vorsichtig, wenn Sie die Baugruppe auf die glatten Stangen und die Rückwandbaugruppe setzen.
- ⚠ **Ensure that no cables are pinched.**
  - Ensure both smooth rods are properly seated in the rod holders.
  - The threaded rod of the rear Z motor must pass through the bed-stop-rear part.
- ⚠ **WARNING: When handling the printer, DO NOT lift it by the CoreXY assembly. Always lift it by the base of the entire assembly.**



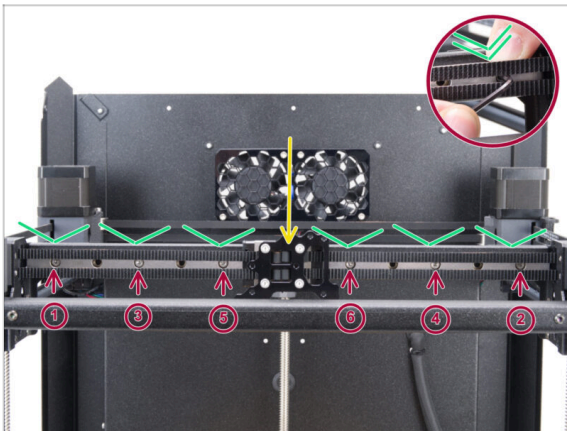
## SCHRITT 75 Securing the smooth rods



⚠ Check that both smooth rods are seated correctly in the holders.

- 🔵 Ziehen Sie die rechte M3x10 Schraube fest an, um die glatte Stange zu fixieren.
- 🔴 Firmly tighten the left M3x10 screw to secure the smooth rod.

## SCHRITT 76 Ausrichten der Linearschiene



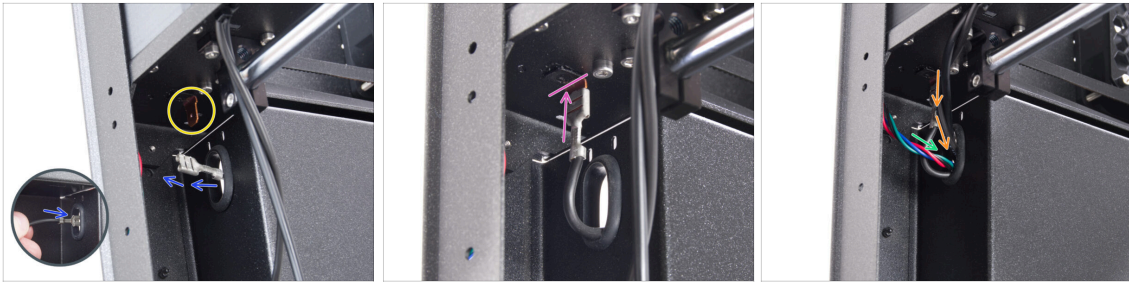
🟡 Move the linear rail carriage to the center.

⚠ Ziehen Sie alle Schrauben **in der auf dem Bild gezeigten Reihenfolge** fest an.

🟢 Push the linear rail down while tightening.

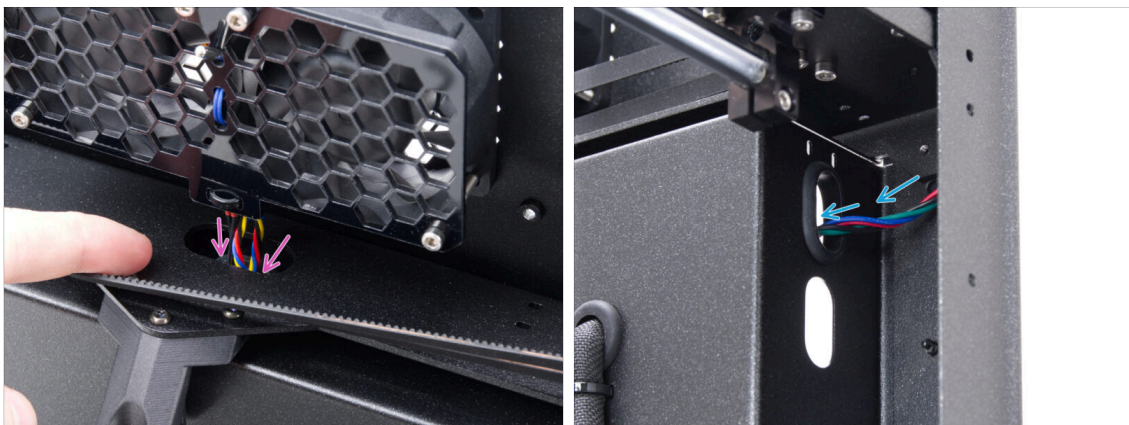


## SCHRITT 77 Führen der Corexy-Kabel



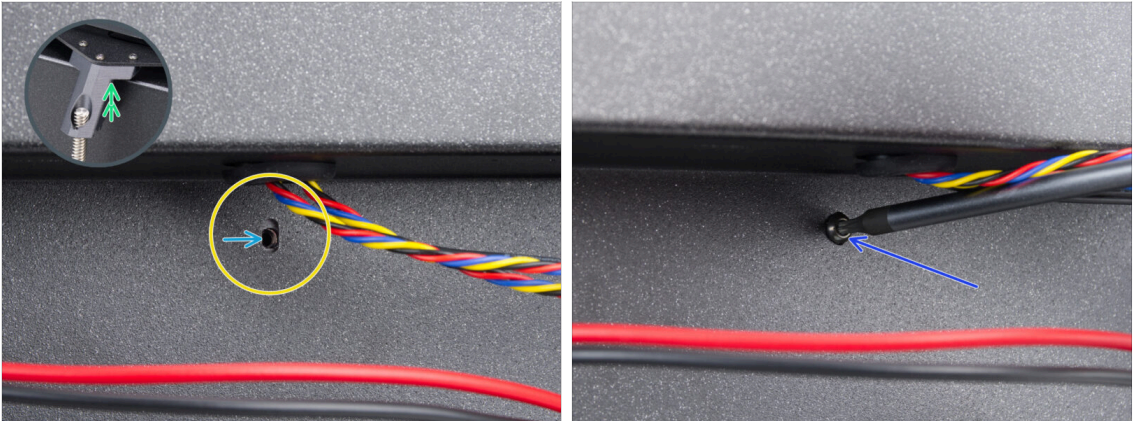
- From the back of the printer, push the FE connector through the oval hole.
- Suchen Sie den FE-Kabelanschluss (Nummer 5) in der hinteren linken Ecke - unter der CoreXY-Baugruppe.
- Plug the FE connector onto the Faston on the underside of the CoreXY plate.
- Schieben Sie auf der gleichen Seite das X-Motorkabel durch das ovale Loch in der Rückwand.
- Push the White LED strip and Door sensor cables through the oval hole in the back panel.

## SCHRITT 78 Führen der Kühllüfterkabel



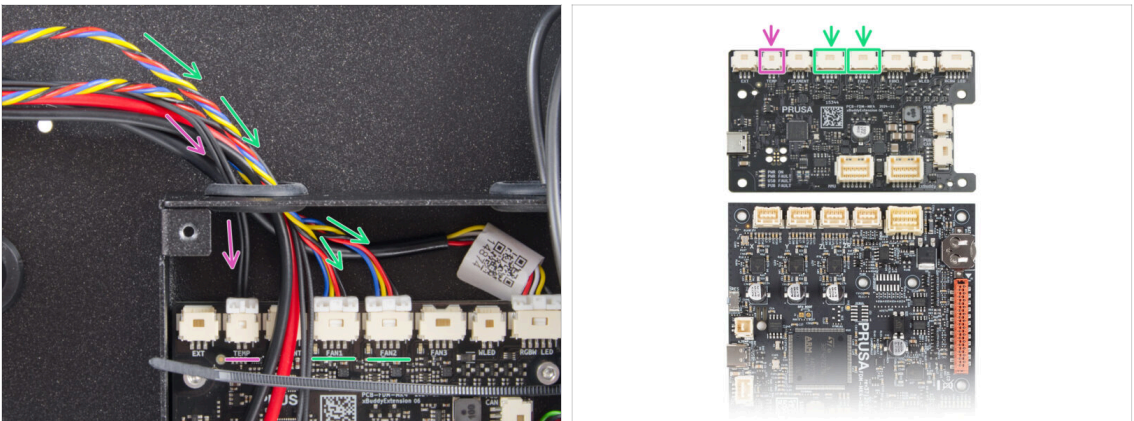
- Push the cooling fan and thermistor cables through the oval hole in the back panel.
- Suchen Sie in der rechten hinteren Ecke das Y-Motorkabel und führen Sie es durch das obere ovale Loch in der Rückwand.

## SCHRITT 79 Befestigen des Bed-stop



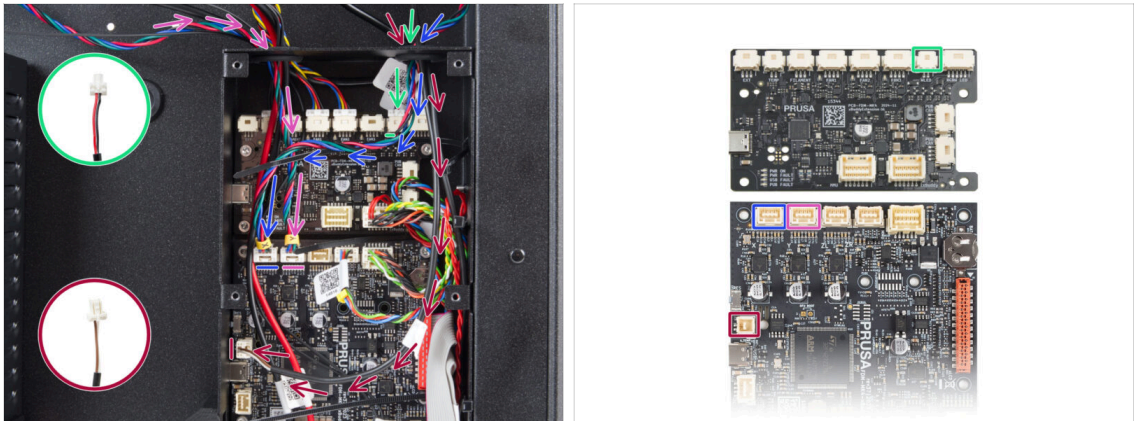
- ✦ From the back side, locate the oval screw hole under the cooling fans.
- ✦ Das ovale Loch muss bündig mit dem Loch im Bed-stop-Teil auf der gegenüberliegenden Seite sein.
- ✦ To compensate, slightly raise the rear of the CoreXY assembly - just a few millimeters.
- ✦ After aligning the holes, secure them with an M3x8rT screw.

## SCHRITT 80 Anschließen der Kabel der Kühllüfter



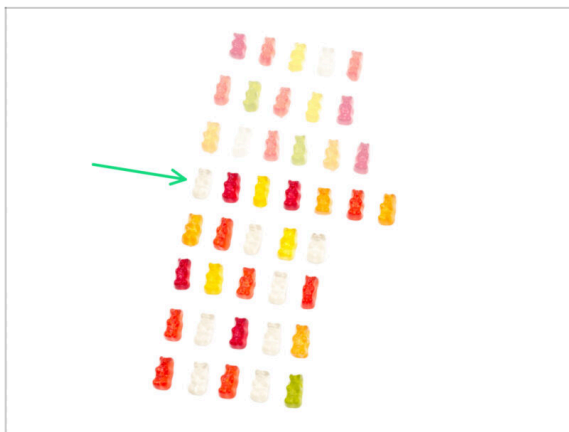
- ✦ Route the cooling fan cables through the left hole in the xBuddy box and plug them into the fourth and fifth slots on the xBuddy extension board labeled FAN 1 and FAN 2.
- ❗ Die Anschlussreihenfolge spielt keine Rolle, beide Kabel sind identisch.
- ✦ Guide the chamber thermistor cable together with the cooling fan cables.
- ✦ Connect it to the second slot from the left on the xBuddy extension board labeled TEMP.

## SCHRITT 81 Anschließen der Corexy-Kabel



- Guide the X motor cable through the right hole in the xBuddy box. Connect it to the first slot from the left on the xBuddy board.
- Führen Sie das Kabel des Türsensors durch das rechte Loch in der xBuddy-Box. Schließen Sie es an den unteren Anschluss an der linken Seite der xBuddy-Platine an.
- Guide the white LED strip cable through the right hole in the xBuddy box. Connect it to the second slot from the right on the xBuddy extension board.
- Guide the Y motor cable through the left hole in the xBuddy box. Connect it to the second slot from the left on the xBuddy board.

## SCHRITT 82 Haribo Zeit!



- Think it's snack o'clock again.
- Sie verdienen es, die ganze Tüte zu essen, aber behalten Sie... Essen Sie nur die vierte Reihe.

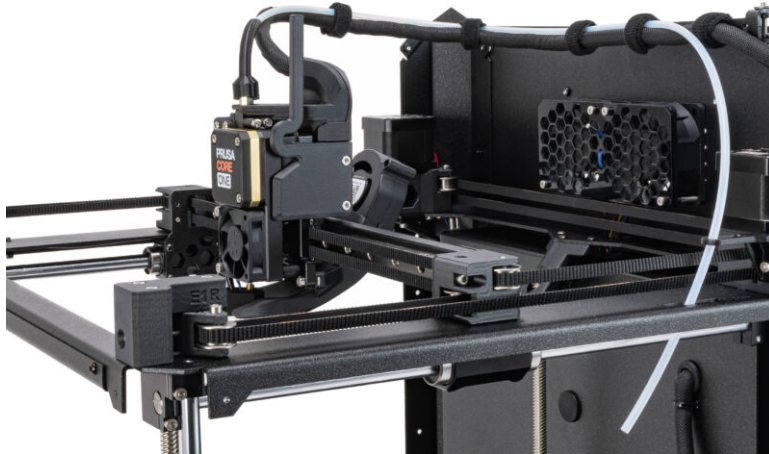


## SCHRITT 83 Abgeschlossen

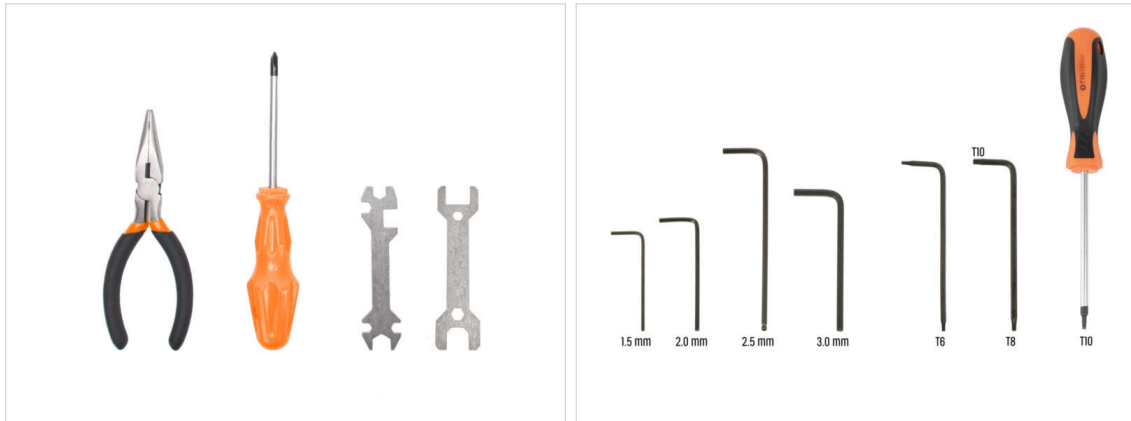


- ◆ Congratulations! You have just assembled and installed the CoreXY assembly.
- ◆ Let's go to the next chapter.

## 6. Zusammenbau des Nextruders

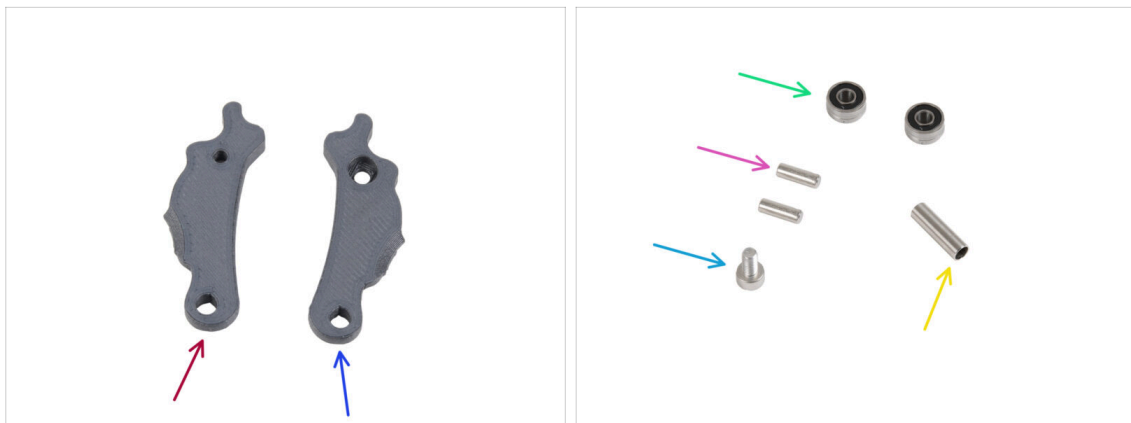


## SCHRITT 1 Tool necessary for this chapter



- **For this chapter, please prepare:**
- Universal-Schlüssel
- 1,5mm Innensechskantschlüssel
- 2,5mm Innensechskantschlüssel
- TX6 Innensechsrund Schlüssel
- T10 torx key / T10 torx screwdriver

## SCHRITT 2 Nextruder Spannrolle: Vorbereitung der Teile



- **For the following steps, please prepare:**
- Idler-lever-a (1x) *finden Sie im Electronics Paket*
- Idler-lever-b (1x) *found in the Electronics package*
- Bearing 693 2RS (2x) *found in the Electronics package*
- Stift 2,9x8,5 (2x) *finden Sie im Electronics Paket*
- Schraube M3x6 (1x)
- Tubular spacer 13.2x3.8x0.35 (1x) *found in the Electronics package*



### SCHRITT 3 Assembling the extruder idler



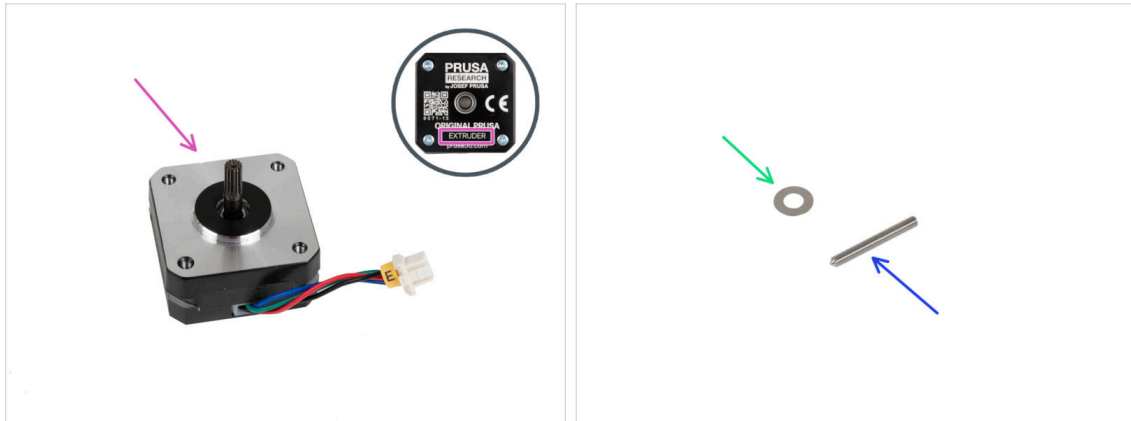
- Place both bearings into the Idler-lever-a.
- Stecken Sie den Stift 2,9x8,5 in jedes Lager 693 2RS, wie auf dem Bild zu sehen.
- Close it up with the Idler-lever-b part and secure it with the M3x6 screw. **Do not overtighten the screw.** Both bearings must be able to rotate without significant resistance.
- From the same side, push the tubular spacer into the assembly. The "bottom" of the tubular spacer must be flush with the bottom part of the Idler assembly.

### SCHRITT 4 Assembling the extruder: parts preparation I.



- **For the following steps, please prepare:**
- PG-assembly (1x) *finden Sie im Electronics Paket*
- Heatsink assembly (1x) *found in the Electronics package*
- Main-plate (1x) *found in the Electronics package*
- PG-ring (1x) *finden Sie im Electronics Paket*
- PG-assembly-adaptor (1x) *found in the Electronics package*
- ① The list continues in the next step...

## SCHRITT 5 Assembling the extruder: parts preparation II.



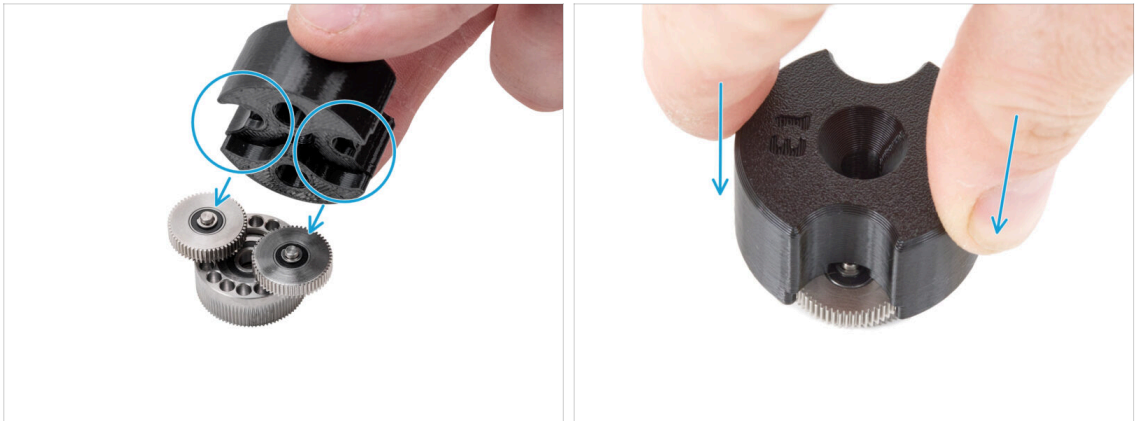
- ◆ Extruder motor (1x) *found in the Motors package*
- ◆ Abstandshalter 5x10x0,1 mm (1x) *finden Sie im Electronics Paket*
- ◆ Socket set screw M3x25 (1x) *found in the Electronics & Fasteners package*

## SCHRITT 6 Zusammenbau des Extruders



- ◆ Place the 5x10x0.1 spacer over the shaft on the extruder motor.
  - ◆ Setzen Sie den Kühlkörper auf den Extrudermotor. Beachten Sie die Ausrichtung der beiden Teile.
    - ◆ The motor cable must be facing "up".
    - ◆ The heatsink cables must be on the right side.
  - ◆ Place the main-plate on the heatsink. Note the orientation of the part. Use the cutout as a guide.
- ⚠ **Before proceeding to the next step, make sure that the 5x10x0.1 spacer is placed on the extruder motor.**

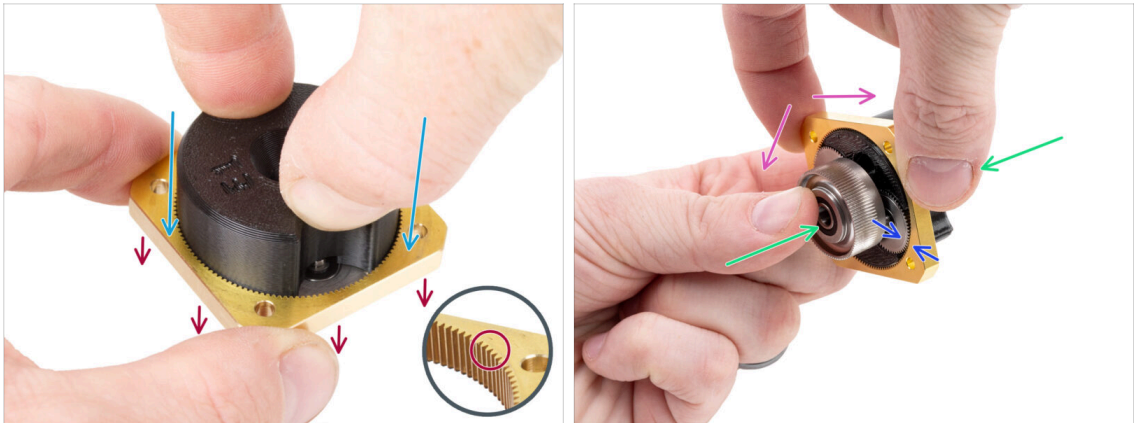
## SCHRITT 7 Zusammenbau des Getriebes



**i** The following instructions need to be done correctly and carefully. Achieve better understanding and successful assembly by watching the video alongside the guide: [prusa.io/PG-assembly](https://prusa.io/PG-assembly)

- Nachdem Sie sich das Video angesehen haben, folgen Sie den Schritten in dieser Anleitung.
- Attach the PG-assembly-adapter on the PG-assembly. Note the pockets for the gears in the adapter.

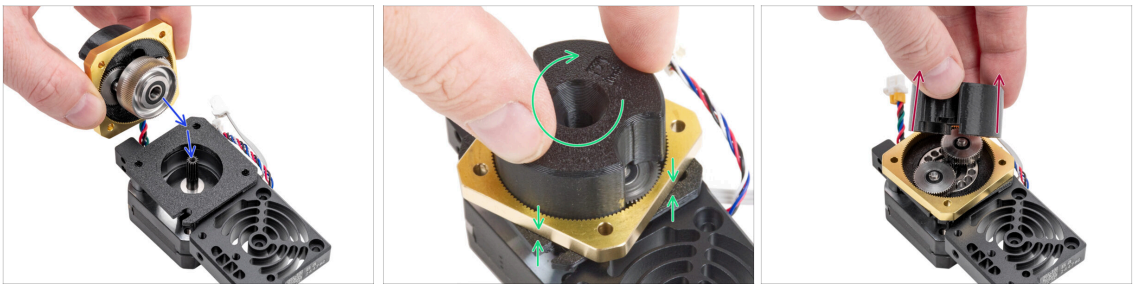
## SCHRITT 8 Zusammenbau des PG-Rings



**⚠ Do not assemble the gearbox without the PG-assembly-adaptor. This tool is intended to ensure that the gears are correctly fit together.**

- ➡ Schieben Sie den PG-Ring auf den Adapter.
- ➡ Note there is a chamfer on one side of the PG-ring teeth. This side must be facing down (to the PG-assembly).
- ➡ Grasp the entire assembly in one hand so that it can be rotated with the PG-ring.
- ➡ With the other hand, slide the PG-ring onto the PG assembly in a wobbling motion (move the PG-ring left and right repeatedly) - a quarter turn is enough.
- ➡ Stop when the surfaces of the gears are approximately flush with the surface of the PG ring.

## SCHRITT 9 Zusammenbau der PG-Baugruppe



**⚠ Proceed very carefully in this step.**

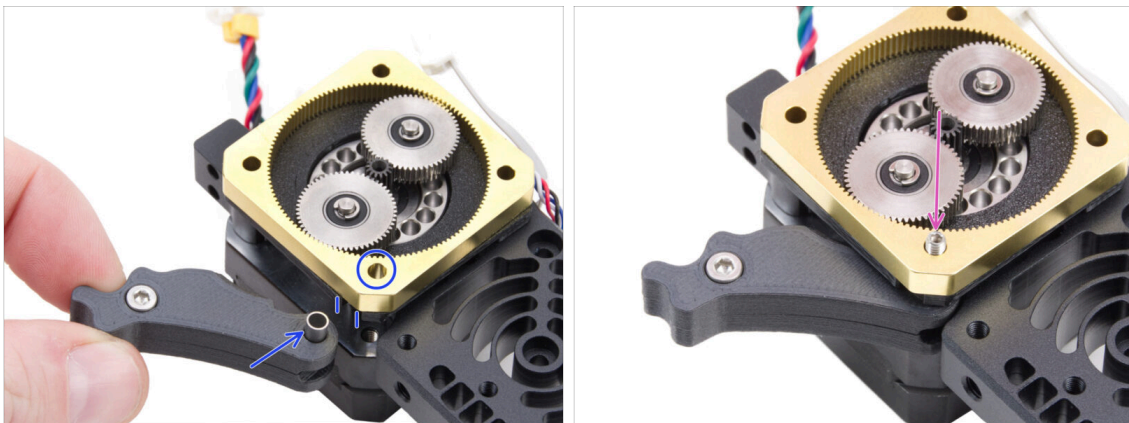
- ➡ Behalten Sie die Position der PG-Baugruppe bei und befestigen Sie sie an der Extrudermotorwelle.
- ➡ Very gently and freely rotate with the whole PG assembly (PG-assembly-adaptor, PG-assembly and PG-ring) until it drops down so that there is no gap between the assembly and the main-plate. **Do not push on the assembly.**
- ➡ Entfernen Sie den PG-Montageadapter.

## SCHRITT 10 Prüfen der PG-Baugruppe



- Attach the PG-assembly-adapter back on the PG-assembly again to verify that all parts are properly seated.
- Drehen Sie mit dem PG-Montage-Adapter. **Die PG-Baugruppe muss sich leicht drehen lassen, ohne viel Kraft aufwenden zu müssen.**
- Remove the PG-adapter. You will no longer need it during assembly. We recommend keeping it for maintenance.
- Ensure that the PG-assembly is not sticking out above the PG-ring. It should be positioned lower than the level of the PG-ring's surface or at the same level as the ring.
- Ensure that the gap between the PG-ring and the Main-plate is minimal. If a significant gap is observed, disassemble the planetary gear assembly and reposition it.

## SCHRITT 11 Assembling the Nextruder idler



- Insert the idler assembly between the PG-ring and the extruder motor. There is a cutout for the spacer in the main-plate. Line up the idler spacer with the hole in the PG-ring.
- Sichern Sie beide Teile mit der Madenschraube 3x25. **Ziehen Sie die Schraube nicht zu fest an! Die Schraube ragt nach dem Anziehen aus dem PG-Ring heraus.**

## SCHRITT 12 Gear lubrication: parts preparation



● For the following steps, please prepare:

- Front-Case (1x) im Paket „Printed parts“ enthalten

① Das Logo auf der Vorderseite des Nextruder-Gehäuses bleibt wie bisher **PRUSA CORE ONE**.

- Schraube M3x25 (3x)
- Lubricant (1x) found in the Electronics & Fasteners package
- Several paper towels to wipe grease from your hands.

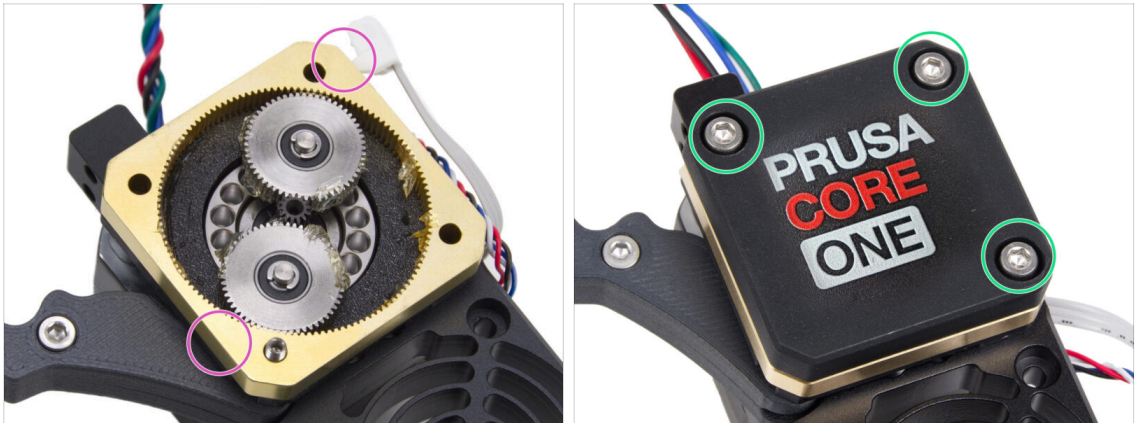
## SCHRITT 13 Schmieren des Getriebes



- Remove the cap from the lube. Use the spike on the opposite side of the cap to pierce a hole in the lube tube opening.
- Drücken Sie eine kleine Menge Schmiermittel auf die Spitze des Kabelbinders und verteilen Sie es dann auf den Zahnrädern.
- Apply a small amount of Prusa Lubricant **all around** the PG-ring and PG-assembly teeth.
- Close the lubricant; it is no longer needed for the assembly.

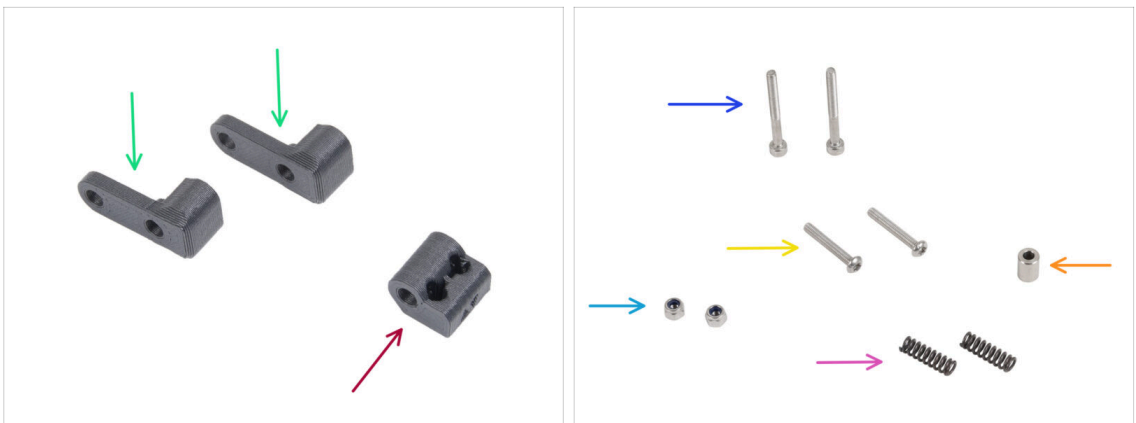


## SCHRITT 14 Covering the planetary gear



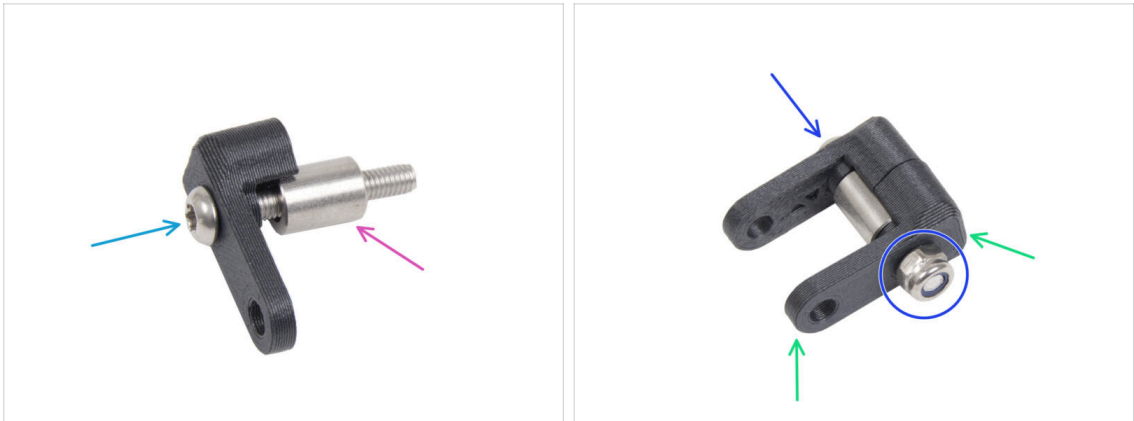
- Using the paper towel, wipe off the lubricant residue from the face surface of the PG-ring.
- Setzen Sie das Front-case auf das Getriebe und befestigen Sie es mit drei M3x25 Schrauben. **Ziehen Sie sie jetzt noch nicht ganz fest.**
- i The screws on the front case will be completely tightened during the self-test in the final chapter.

## SCHRITT 15 Assembling the Idler-swivel: parts preparation



- **For the following steps, please prepare:**
- Idler-swivel (2x) finden Sie im Electronics Paket
- Idler-nut (1x) found in the Electronics package
- Schraube M3x30 (2x)
- Schraube M3x20rT (2x)
- M3nN Mutter (2x)
- Spring 15x5 (2x) found in the Electronics package
- Spacer 6x3.1x8 (1x) found in the Electronics package

## SCHRITT 16 Montieren des Idler-swivels



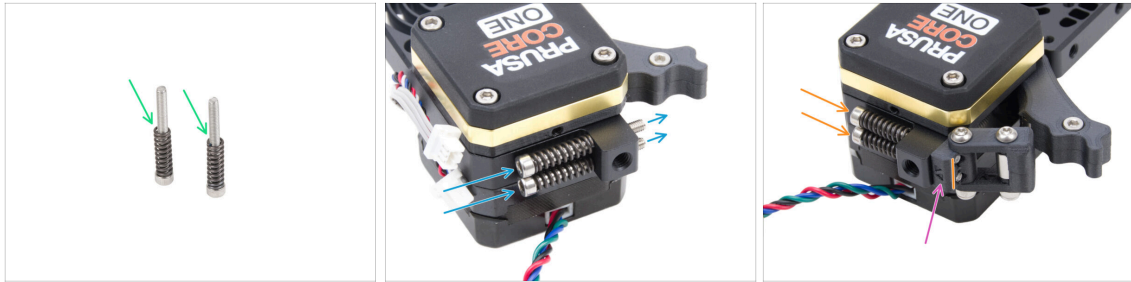
- Push the M3x20rT screw all the way through one of the idler-swivel.
- Schieben Sie den Abstandshalter auf die Schraube.
- Place the second idler-swivel from the opposite side on the screw.
- From the other side, attach the M3nN nut onto the screw. Hold the nut using the universal wrench and tighten the screw. **Tighten just lightly!** The spacer must rotate freely.

## SCHRITT 17 Montieren der Idler-Mutter



- Insert the Idler-nut into the Idler-swivel assembly. Make sure that both parts are oriented correctly according to the picture.
- Befestigen Sie beide Teile miteinander, indem Sie die M3x20rT Schraube von der gleichen Seite wie die erste Schraube eindrehen.
- Secure the screw with M3nN nut. **Do not overtighten the nut.** It must be possible to move with the Idler-swivel on the Idler-nut.

## SCHRITT 18 Mounting the Idler-swivel assembly



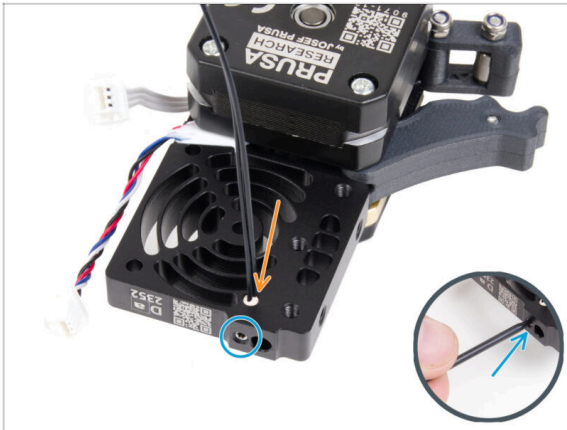
- Attach the spring 15x5 on both M3x30 screws.
- Push the two screws with the springs through the holes in the protrusion on the heatsink. There are no threads inside.
- Attach the Idler-swivel assembly on the screws. See the correct orientation of the Idler-nut. The side with version marking must be visible. See the picture.
- Tighten both screws. **Stop tightening as soon as the screw tips reach the front face of the idler nut.**

## SCHRITT 19 NTC thermistor: parts preparation



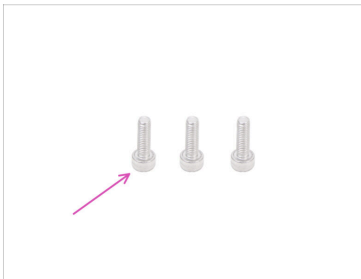
- **For the following steps, please prepare:**
- NTC thermistor 90 mm (1x) *found in the Electronics package*
- M3x4T grub screw (1x)

## SCHRITT 20 Assembling the NTC thermistor



- On the **extruder motor side**, insert the NTC thermistor into the hole in the heatsink.
- Secure it with the M3x4T grub screw. Screw it all the way in. **Tighten gently, but firmly** using two fingers and the short side of the T6 Torx key. Applying more force may cause permanent damage to the thread.

## SCHRITT 21 Mounting the Nextruder: parts preparation



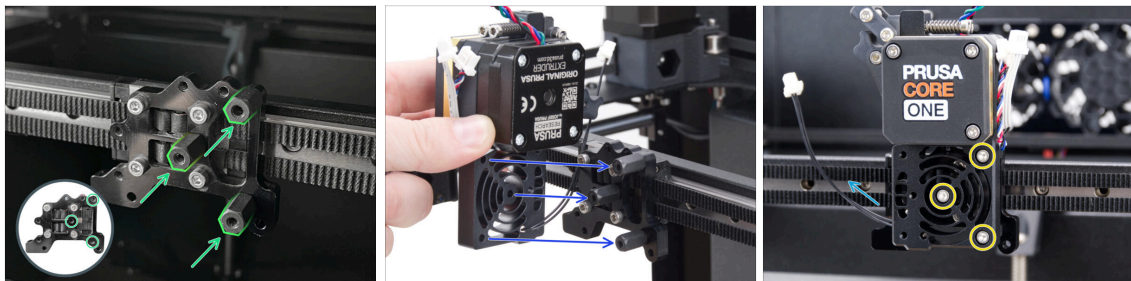
- **For the following steps, please prepare:**
- Nextruder spacer (3x) *found in the Electronics & Fasteners package*
- Schraube M3x10 (3x)
- Cardboard box (1x) *used as temporary heatbed protection*
- i Hint: You can use any cardboard box from the kit package.

## SCHRITT 22 Schutz des Heizbettes



- Place an empty cardboard box on the heatbed, ensuring it covers as much of the surface as possible.
- i** This will protect the heatbed from falling parts.

## SCHRITT 23 Befestigen des Nextruders



- Screw three Nextruder spacers to the Nextruder holder. Tighten the spacers firmly.
- Place the Nextruder assembly on the spacers.
- Align the holes in the Nextruder with the spacers and secure it with three M3x10 screws. **Do not overtighten the screws.**
- Ensure the NTC cable is pointing to the left.

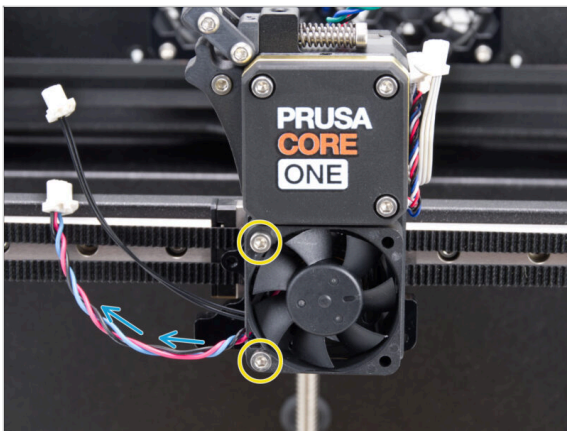
## SCHRITT 24 Hotend Lüfter: Vorbereitung der Teile



For the following steps, please prepare:

- Hotend fan (1x) found in the Electronics package
- Hotend-cable-clip (1x) found in the Printed parts package
- Schraube M3x4rT (2x)
- Schraube M3x18 (2x)

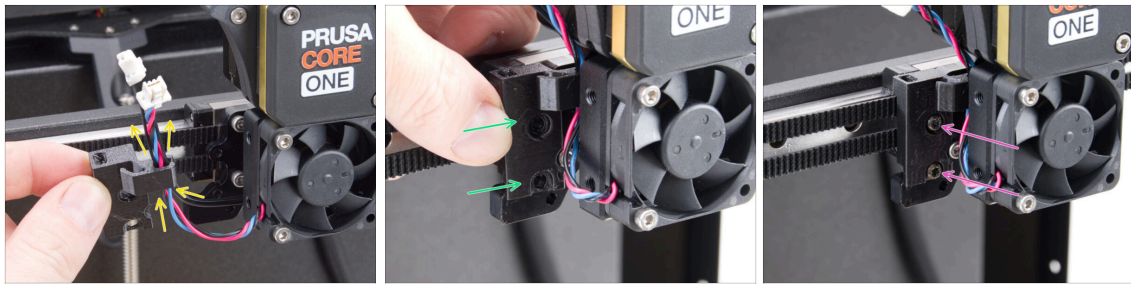
## SCHRITT 25 Einbau des Hotend-Lüfters



- Attach the hotend fan onto the heatsink with two M3x18 screws on the left side. **Tighten the screw gently, but firmly, otherwise the plastic housing may crack.**
- ⚠ There is a sticker on the hotend fan, the sticker must be on the rear side of the fan - not visible.
- The cable must be pointing towards the lower-left corner.



## SCHRITT 26 Führen der Kabel des Hotends



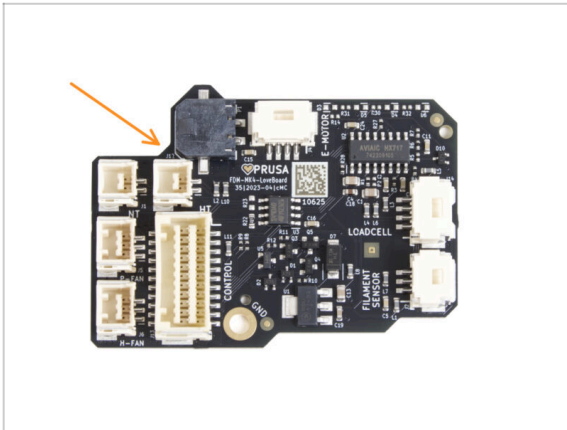
- ✦ Take the Hotend-cable-clip in the same position as shown and guide the **heatsink fan cable** together with the **NTC thermistor cable** through the right cable hook.
- ✦ Attach the Hotend-cable-clip to the Nextruder holder.
- ✦ Secure it using two M3x4rT screws.

## SCHRITT 27 LoveBoard: parts preparation I.



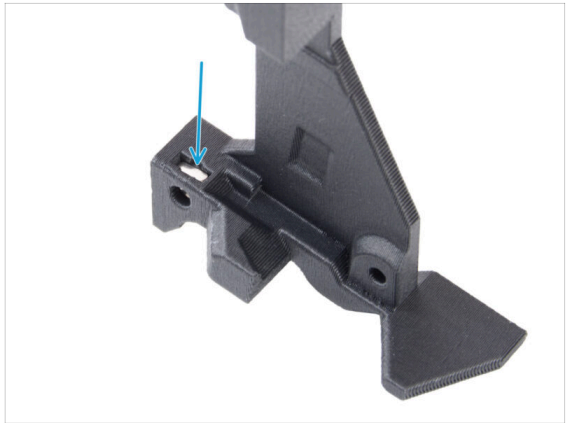
- ✦ **For the following steps, please prepare:**
- ✦ Printhead-cover (1x) *found in the Printed parts package*
- ✦ Loveboard-mount (1x) *found in the Printed parts package*
- ✦ Hauptkabel (1x) *finden Sie in der Verpackung von Electronics & Fasteners*
- ⓘ Note: Cable color may vary depending on the batch. This does not affect the procedure.
- ✦ Schraube M3x10 (4x)
- ✦ Schraube M3x8rT (1x)
- ✦ M3nS Mutter (5x)
- ⓘ The list continues in the next step...

## SCHRITT 28 LoveBoard: parts preparation II.



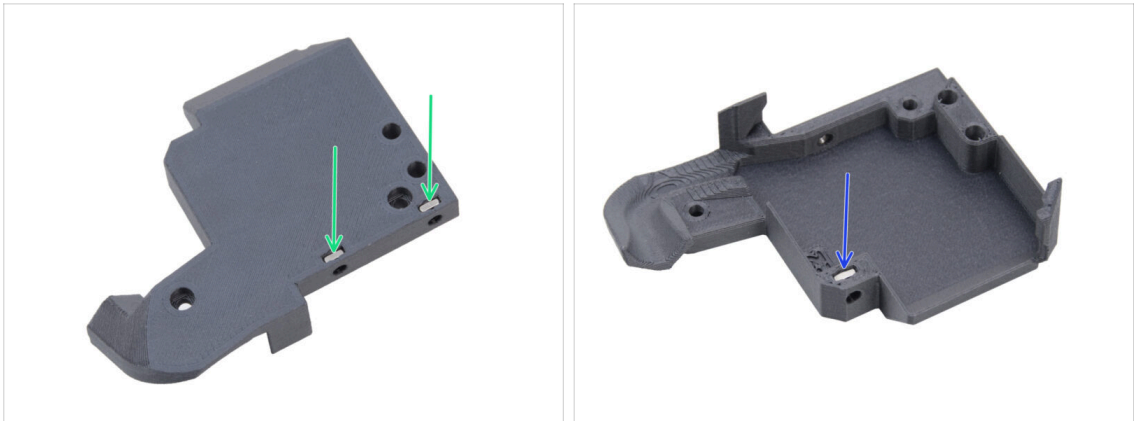
- For the following steps, please prepare:
- LoveBoard (1x) found in the Electronics package

## SCHRITT 29 Montage des Loveboard-Mounts



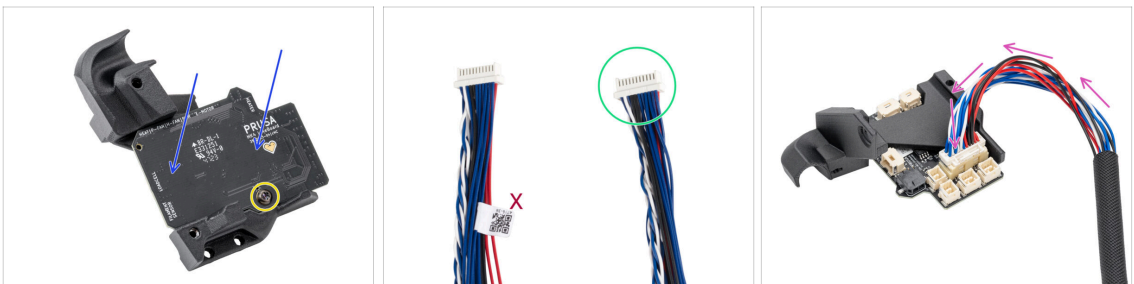
- Locate the U-shaped cable channel on the Loveboard-mount and insert an M3nS nut into the nearby hole.
- Use a 2.5mm Allen key to push the nut all the way in.
- On the opposite side of the part, insert an M3nS nut and push it into place.

## SCHRITT 30 Zusammenbau der Druckkopfabdeckung



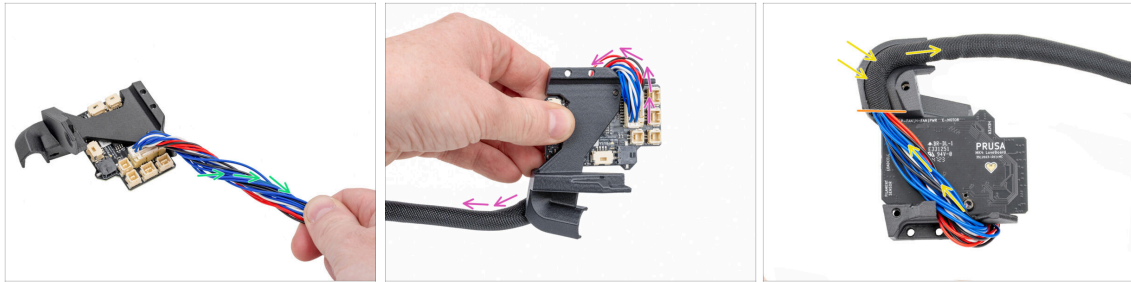
- 🟢 From the back of the printhead-cover, insert two M3nS nuts into the part.
- 🟡 From the other side of the printhead-cover, insert one M3nS nut into the part.

## SCHRITT 31 Montieren des LoveBoards



- 🟡 Place the LoveBoard to the Loveboard-mount. Note the correct orientation - the connectors must be facing downwards.
- 🟢 Align the holes with both parts and secure the board with the M3x8rT screw. **Do not overtighten it**, it might damage the part.
- 🟢 Take the end of the extruder main cable without the white label.
- 🟡 Drehen Sie das Loveboard-Mount auf den Kopf und schließen Sie das Hauptkabel an das LoveBoard an.

## SCHRITT 32 Führung des Hauptkabels



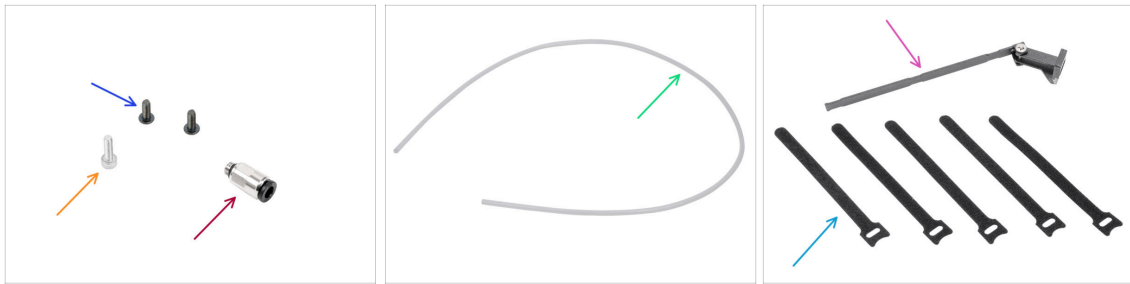
- Twist the main cable half a turn.
- Fold the main cable over the LoveBoard to its opposite side.
- Turn the LoveBoard assembly upside down.
- Führen Sie das Hauptkabel über das LoveBoard durch den Kabelkanal in der Loveboard-mount.
- Das Ende der Textilhülse muss mit der Kante des Kunststoffteils fluchten.

## SCHRITT 33 Abdecken des LoveBoards



- Insert two M3x10 screws into the Loveboard-holder.
  - ⚠ Ensure you insert the screws from the correct side. Use the LoveBoard logo on the board as a reference.
- Cover the LoveBoard with the Printhead-cover.
  - ⚠ **Achten Sie darauf, dass keine Drähte im Hauptkabel eingeklemmt werden.**
- Fix both parts together using two M3x10 screws.
- Check that there is no large gap or pinched textile sleeve between the parts.

## SCHRITT 34 Swingarm: parts preparation I.



For the following steps, please prepare:

- Schraube M3x8rT (2x)
- Schraube M3x10 (1x)
- Fitting M5-4 (1x) *finden Sie in der Verpackung von Electronics & Fasteners*
- PTFE tube 710 x 4 x 2.5 (1x) *found in the CoreXY parts + Hinges set package*
- Swingarm assembly (1x) *found in the Metal parts 3/3 package*
- Cable tie (5x) *found in the Electronics & Fasteners package*

i Packed in a stack and must be separated.

i The list continues in the next step...

## SCHRITT 35 Swingarm: parts preparation II.

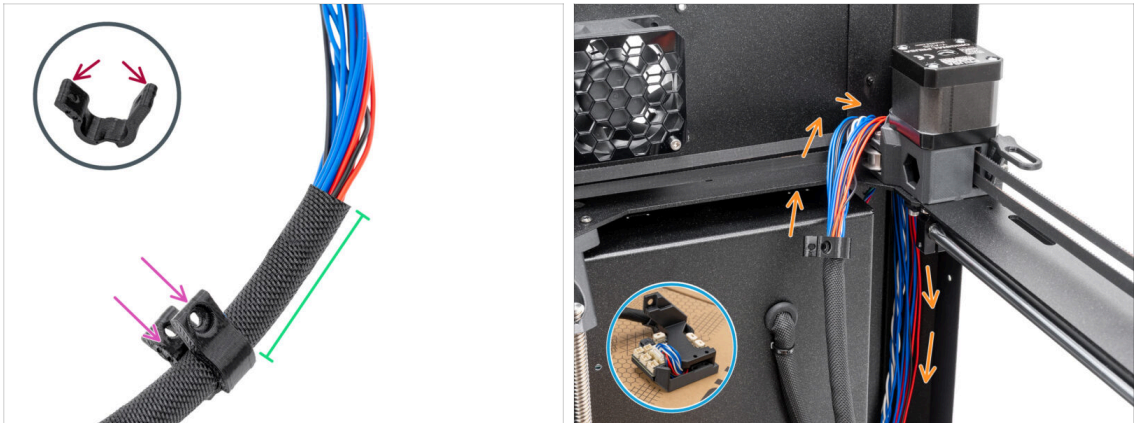


For the following steps, please prepare:

- Bowden-bend (1x) *found in the Printed parts package*
- Main-cable-clip (1x) *found in the Printed parts package*

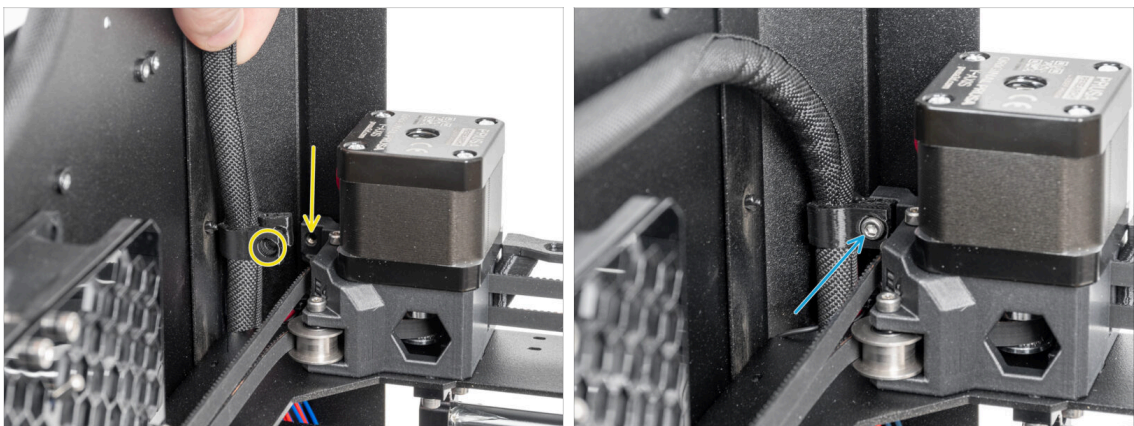


## SCHRITT 36 Führung des Hauptkabels



- Carefully open the Main-cable-clip. Be careful not to crack the part.
- Insert the main cable into the Main-cable-clip.
- Platzieren Sie den Main-cable-clip etwa 5 - 15 cm (2 - 6 Zoll) vom Ende der Textilhülle entfernt und schließen Sie den Clip.
- Legen Sie die LoveBoard-Baugruppe auf den Karton auf dem Heizbett.
- Push the main cable behind the CoreXY assembly in the right rear corner.

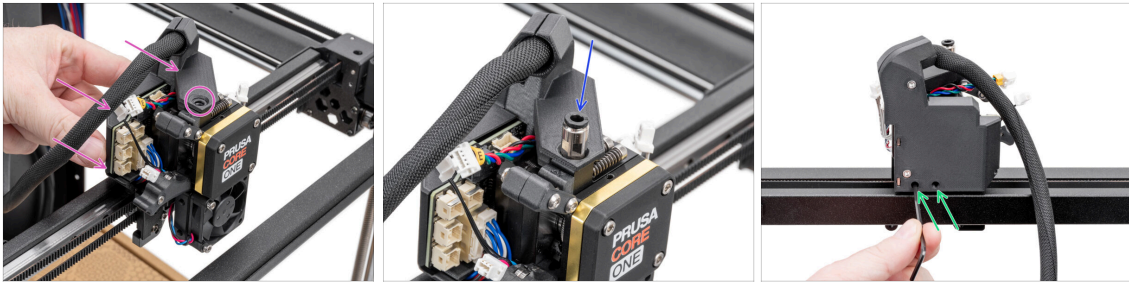
## SCHRITT 37 Mounting the main cable



- In the right corner of the printer on the Y motor assembly, locate the hole in the plastic part and align it with the main-cable-clip.
- Fix the main-cable-clip with the cable to the hole using the M3x10 screw.

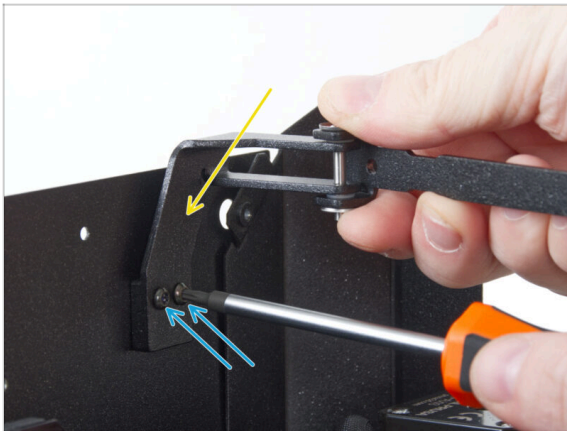


## SCHRITT 38 Attaching the LoveBoard assembly



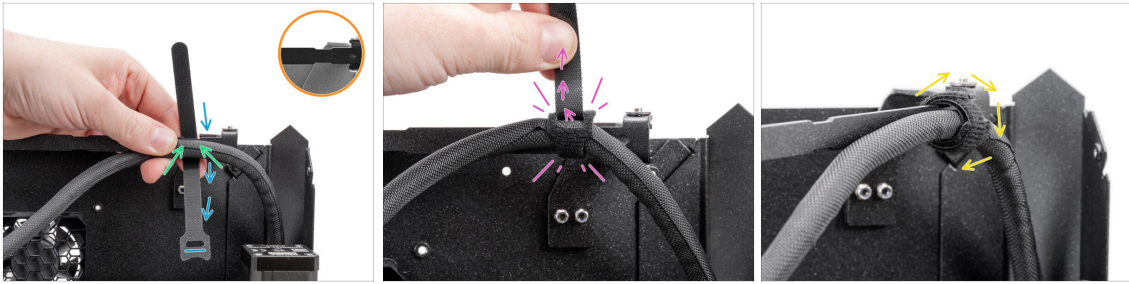
- ◆ From the back of the Nextruder, attach the LoveBoard assembly to the Nextruder.
- ◆ Align the hole in the Loveboard-mount with the threaded hole in the top of the heatsink (Nextruder).
- ◆ Insert and tighten the fitting M5-4 to the heatsink. Use the universal wrench.
- ◆ Ziehen Sie die beiden M3x10-Schrauben von der Rückseite des Nextruders aus fest, um die LoveBoard-Baugruppe zu befestigen.

## SCHRITT 39 Befestigung des Schwenkarms



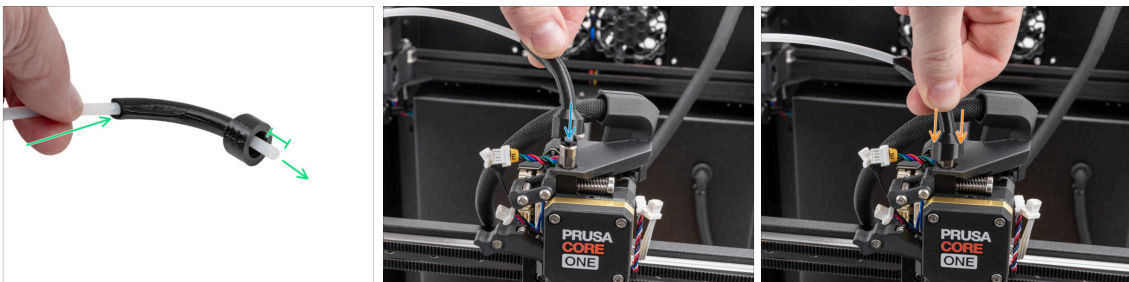
- ◆ Attach the swingarm assembly to the pair of threaded holes on the back panel near the top right corner.
- ◆ Secure it with two M3x8rT screws.
- ⚠ Do not overtighten the screws, as this may strip the threads.

## SCHRITT 40 Attaching the main cable



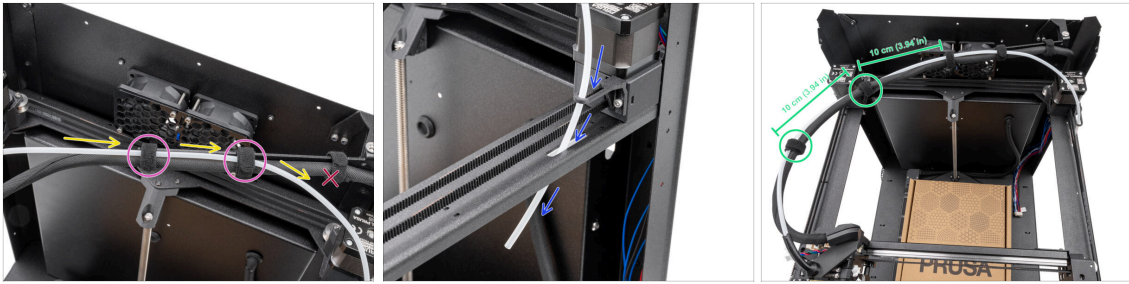
- 🟠 Notice the cutouts on the swingarm.
- 🟢 Position the main cable at the first cutout on the swingarm.
- 🟡 Place one cable tie behind the first cutout on the swingarm, ensuring the correct orientation of the zip strip.
- 🟣 Führen Sie den Kabelbinder durch seine Öse und wickeln Sie ihn um den Schwingarm und das Hauptkabel.
- ⬛ Tighten the cable tie as much as possible.
- 🟡 Wrap the cable tie around.

## SCHRITT 41 Inserting the PTFE tube



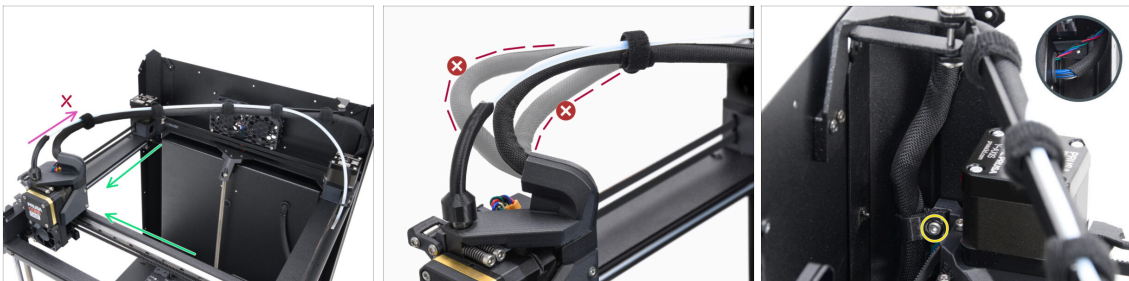
- 🟢 Push one end of the PTFE tube through the bowden-bend and keep protruding at least 1 cm (0.39 in) of the tube.
- 🟡 Insert the PTFE tube into the fitting M5-4 on the Nextruder. Push it all the way down.
- 🟠 Slide bowden-bend down to cover the fitting M5-4.

## SCHRITT 42 Securing the PTFE tube



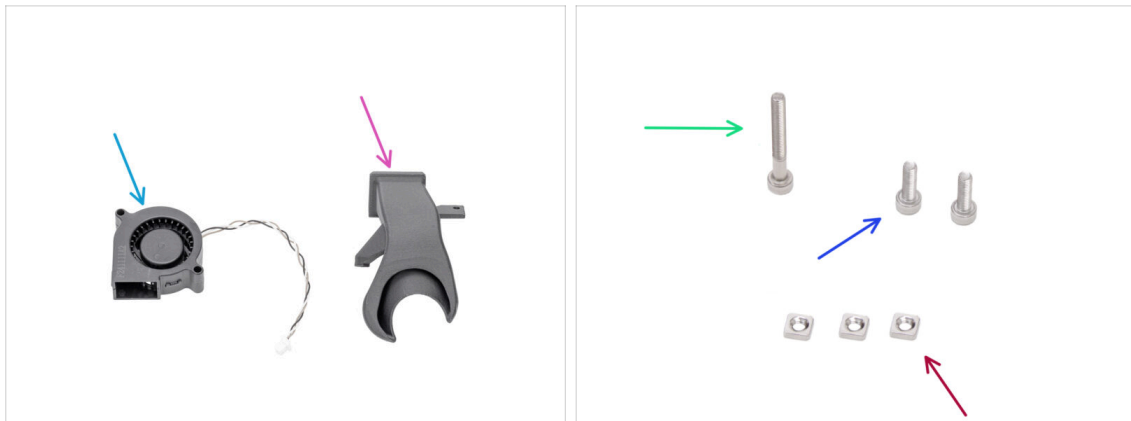
- ◆ Route the PTFE tube in parallel with the main cable, ensuring the PTFE tube stays above the main cable.
- ◆ Secure the PTFE tube and main-cable to the swingarm using two cable ties to the remaining cutouts.
- ⚠ Do not pass the PTFE tube through the first cable tie on the swingarm.
- ◆ Schieben Sie das freie Ende des PTFE-Schlauchs durch die Bowdenführung und die CoreXY-plate nach unten. Lassen Sie das Ende frei hängen.
- ◆ Merge the PTFE tube and main-cable with the remaining two cable ties, leaving a 10 cm (3.94 in) distance between them.

## SCHRITT 43 Überprüfung der Bewegung



- ◆ Manually move the XY axes to their end positions several times and ensure that:
  - ◆ The main cable is not too tight and does not pull the Nextruder backward.
  - ◆ Das Hauptkabel bildet keinen besonders großen Bogen.
    - ◆ Wenn das Kabel zu straff ist oder einen großen Bogen formt, lösen Sie die Schraube am Main-cable-clip leicht und ziehen Sie das Kabel einige Millimeter nach oben oder nach unten. Ziehen Sie dann die Schraube wieder fest und testen Sie erneut.

## SCHRITT 44 Print fan: parts preparation



● For the following steps, please prepare:

- Print fan (1x) found in the Electronics package
- Fan-shroud (1x) found in the Printed parts package
- Schraube M3x25 (1x)
- Schraube M3x10 (2x)
- M3nS Mutter (3x)

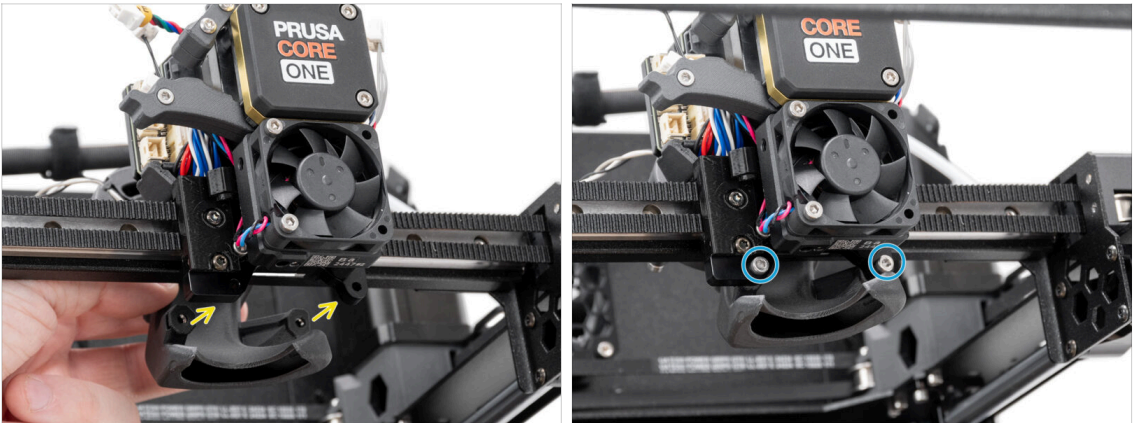
## SCHRITT 45 Lüfterhaube montieren



- Insert two M3nS nuts from one side into the fan-shroud.
- From the other side, insert one M3nS nut into the fan-shroud.
- Insert the print fan into the fan-shroud as shown. See the correct orientation of the parts.
- Sichern Sie beide Teile mit einer M3x25-Schraube.

⚠ Do not overtighten the screws to avoid damaging the fan housing.

## SCHRITT 46 Installing the print fan assembly



- Attach the print fan assembly to the back of the Nextruder.
- Align the holes in the Nextruder bracket with the holes in the fan-shroud.
- Secure the fan-shroud to the Nextruder holder using two M3x10 screws.

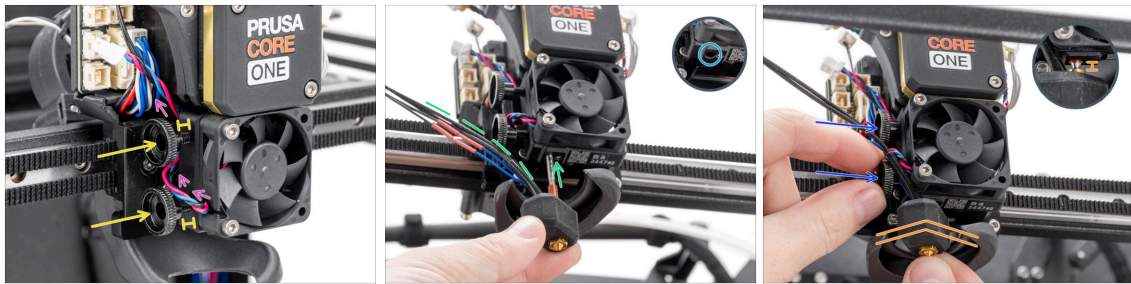
## SCHRITT 47 Hotend: Vorbereitung der Teile



- **For the following steps, please prepare:**
- Thumb screw (2x) found in the Electronics package
- Prusa Hotend assembly (1x) found in the Electronics package

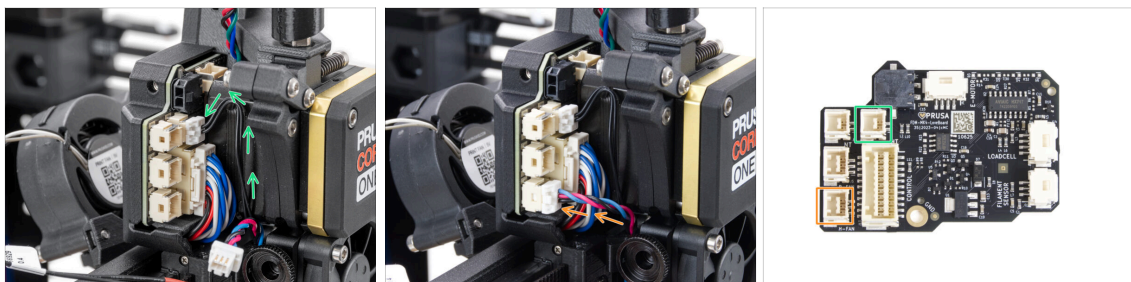


## SCHRITT 48 Einsetzen des Hotends



- ✿ Route the heatsink fan cable above the first threaded hole in the heatsink.
  - ✿ Insert two thumb screws into the heatsink. **Do not tighten them completely.** Two turns are enough for now.
  - ✿ Look closely at the underside of the heatsink and find the hole for the hotend assembly.
  - ✿ Führen Sie das Rohr der Hotend-Baugruppe in das Loch ein und schieben Sie das Ganze in den Kühlkörper.
  - ✿ Point the cables to the left according to the photo.
  - ✿ Push the hotend assembly all the way into the heatsink. There should be approximately a 2 mm (0.08 in) gap between the heatsink and the brass part of the nozzle.
  - ✿ While pushing the hotend assembly in, **firmly tighten both thumb screws.**
- ⚠ **Avoid pinching any cable between the screws and the heatsink!**

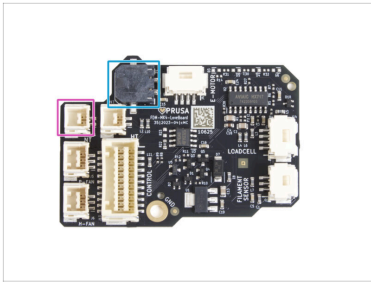
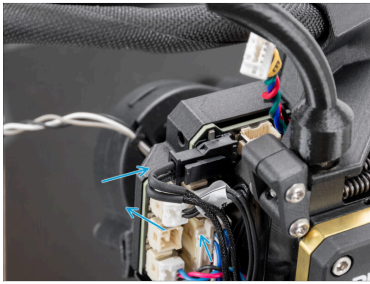
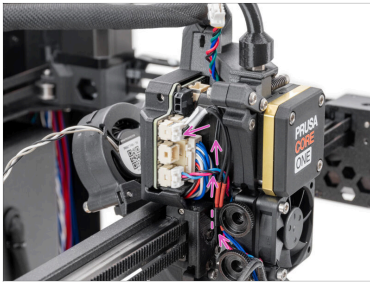
## SCHRITT 49 Connecting the heatsink cables



- ✿ Plug the NTC thermistor cable into the connector above the main cable on the LoveBoard.
- ✿ Stecken Sie das Kabel des Lüfters des Hotends in den unteren Anschluss in der linken Reihe des LoveBoards.

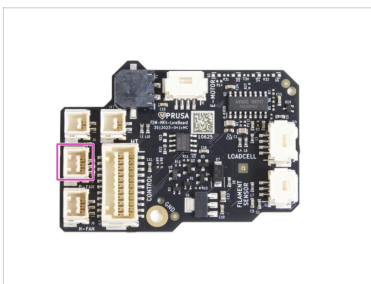
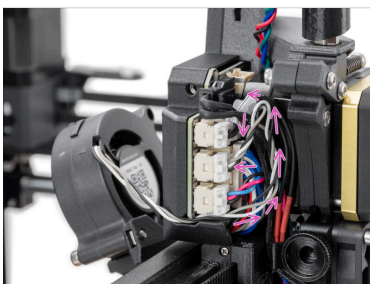
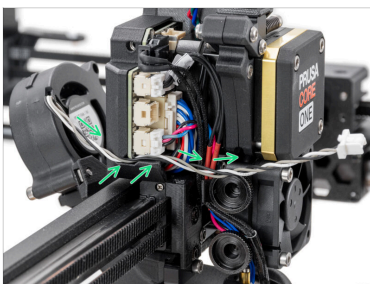


## SCHRITT 50 Connecting the hotend cables



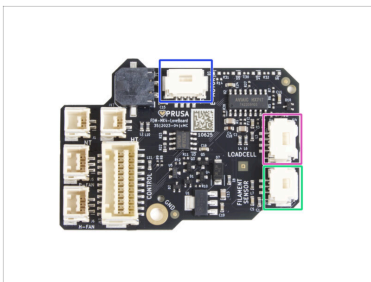
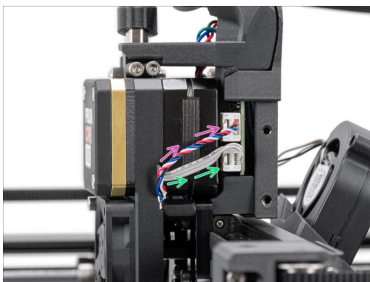
- ◆ Guide the hotend thermistor through the cable-clip on the Nextruder and connect it to the LoveBoard.
- ◆ Guide the hotend heater through the cable-clip on the Nextruder and connect it to the LoveBoard.

## SCHRITT 51 Connecting the print fan cable



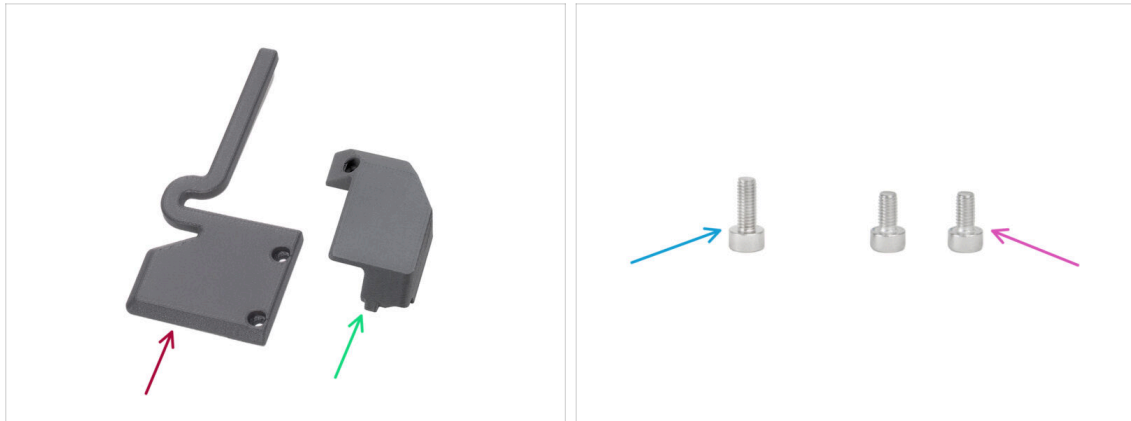
- ◆ Guide the print fan cable through the channel in the plastic cover.
- ◆ Create a loop with the print fan cable in the cable area and plug it into the middle connector in the LoveBoard.

## SCHRITT 52 E-Motor-Kabel anschließen



- ◆ Plug the Nextruder motor (labeled E) to the top-facing connector.
- ◆ Plug the loadcell cable (lower cable) to the upper connector on the right side of the Nextruder.
- ◆ Plug the filament sensor (upper cable) to the lower connector.

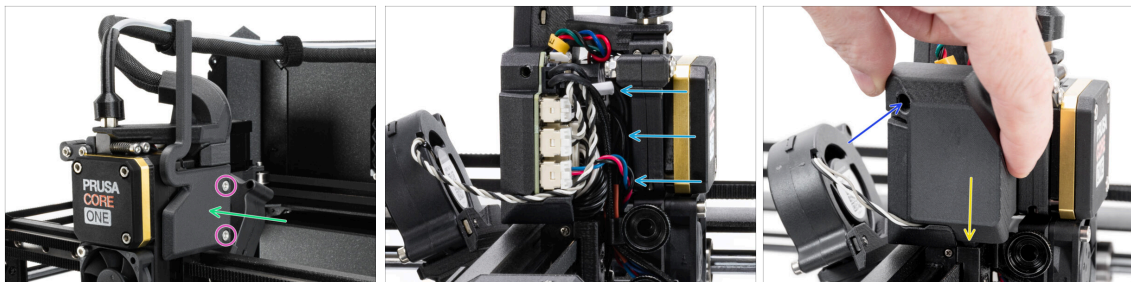
## SCHRITT 53 LoveBoard covers: parts preparation



● **For the following steps, please prepare:**

- Printhead-cover-right-lever (1x)
- Print-head-cover-right (1x) *found in the Printed parts package*
- Schraube M3x10 (1x)
- Schraube M3x6 (2x)

## SCHRITT 54 Abdecken des LoveBoards

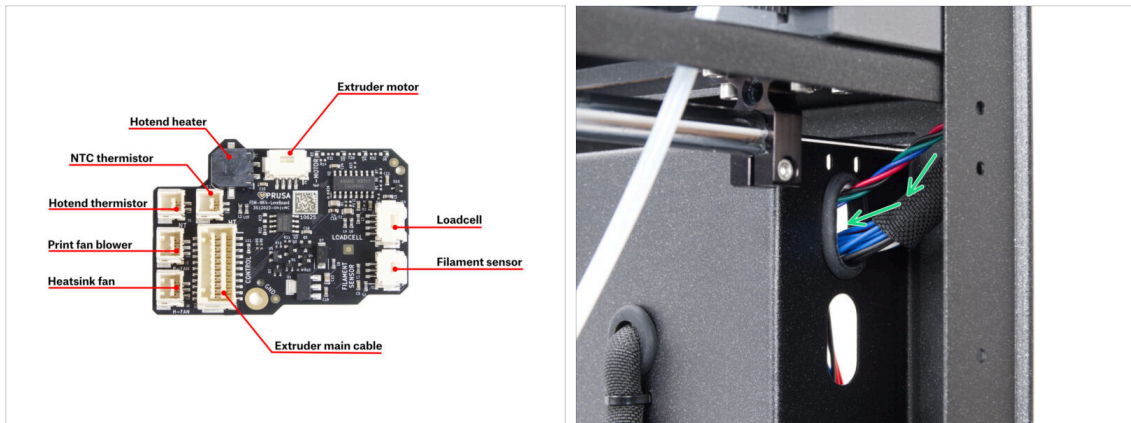


- Setzen Sie den Printhead-cover-right-lever auf die rechte Seite des Nextruders.

⚠ **Do not pinch the cables!**

- Secure the cover with two M3x6 screws.
- Drücken Sie den Kabelbaum so weit wie möglich nach innen zum LoveBoard, damit er nicht herausragt und Probleme beim Anbringen der Abdeckung verursacht.
- Attach the Print-head-cover-left on the left side of the Nextruder.
  - **Note the protrusion on the underside of the cover - the protrusion must fit into the counterpart on the Nextruder.**
- Secure the cover with one M3x10 screw.

## SCHRITT 55 LoveBoard: Verdrahtung prüfen



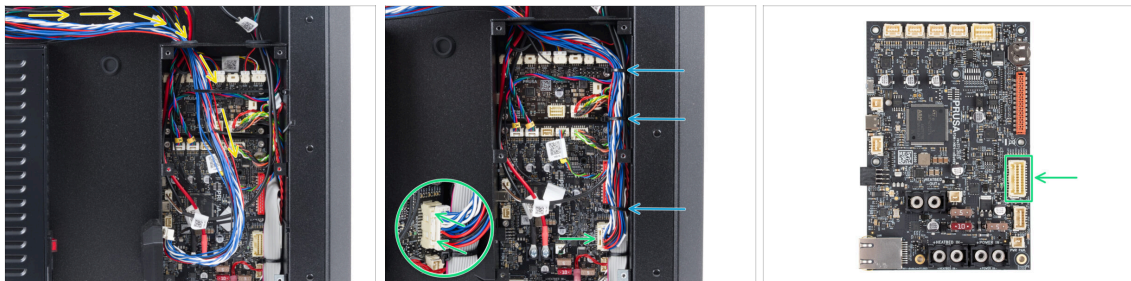
**⚠ Before covering the electronics, check the connection of all cables.**

**i** Click on the picture to open it in the high-resolution preview.

➡ Guide the main-cable through the upper hole on the right side of the back panel assembly.

⬛ Lassen Sie das Ende des Kabels vorerst frei hängen.

## SCHRITT 56 Guiding the main cable



⬛ Drehen Sie den Drucker so, dass die Rückseite zu Ihnen zeigt.

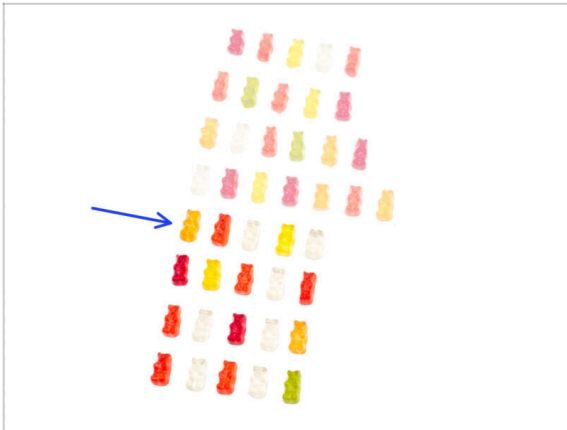
➡ Führen Sie das Hauptkabel durch das linke Loch in die xBuddy-Box.

➡ Plug the main-cable to the slot on the right side of the xBuddy board.

**i** Wenn das Kabel nicht bis zum Stecker reicht oder zu straff ist, gehen Sie zurück zu Schritt **Führung des Hauptkabels** und ziehen Sie das Kabel leicht nach unten aus dem Main-cable-clip.

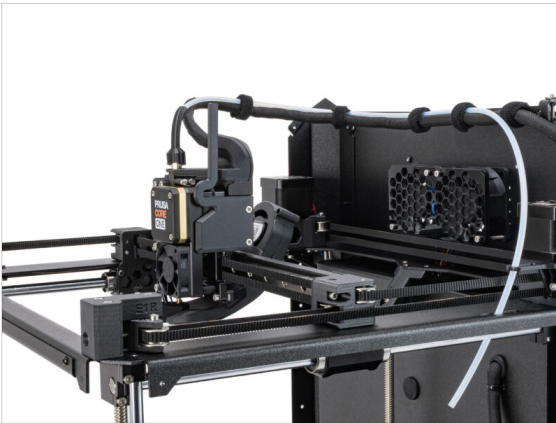
➡ Befestigen Sie die Kabel mit den vorgefädelt Kabelbindern in der xBuddy-Box. Schneiden Sie den Überschuss vorsichtig ab und achten Sie darauf, **die Kabel nicht zu beschädigen**.

## SCHRITT 57 Haribo Zeit!



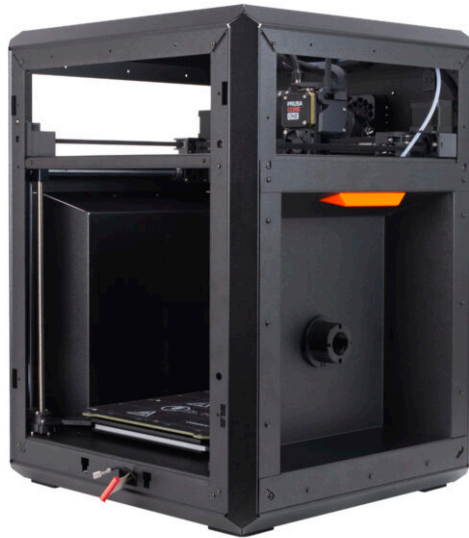
- ⬢ Energie tanken und weitermachen!
- ⬢ Eat the fifth row.
- ⬢ Noch nicht satt?

## SCHRITT 58 Abgeschlossen



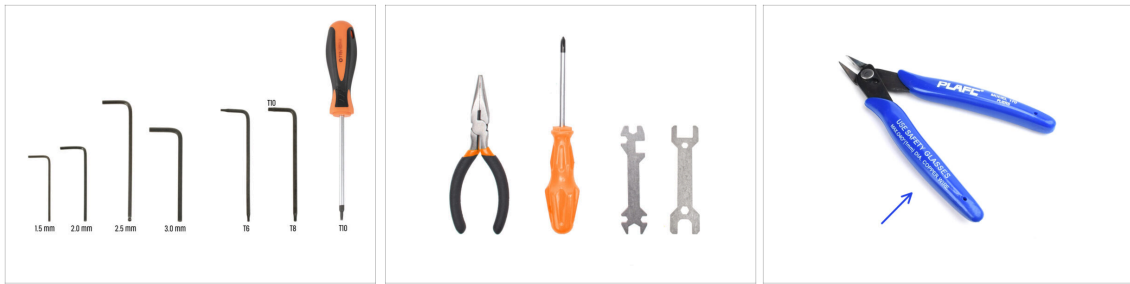
- ⬢ Herzlichen Glückwunsch! Sie haben den Nextruder soeben erfolgreich zusammengebaut.
- ⬢ Let's move to the next chapter.

## 7. Bodywork & Electronics





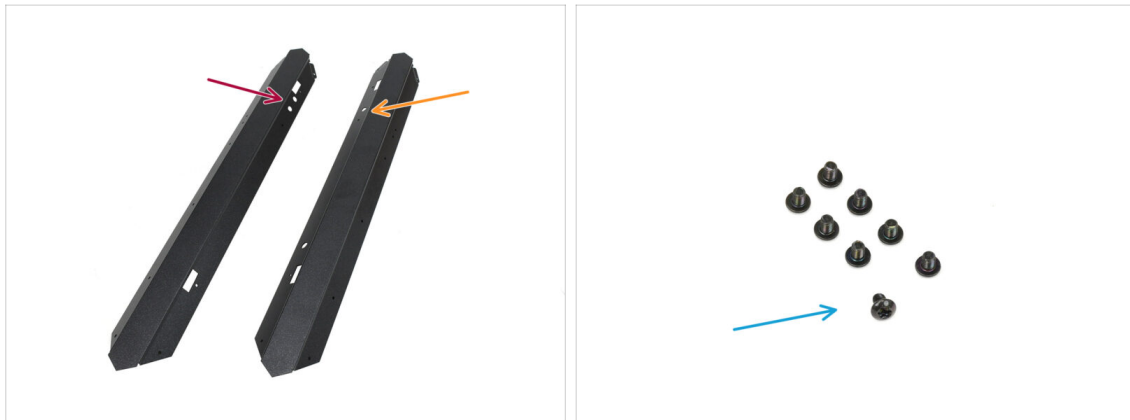
## SCHRITT 1 Tools necessary for this chapter



● **For the following steps, please prepare:**

- 2,5mm Innensechskantschlüssel
- 1,5mm Innensechskantschlüssel
- T10 Innensechsrund Schlüssel
- Spitzzange
- Seitenschneider (optional)

## SCHRITT 2 Front profiles: parts preparation

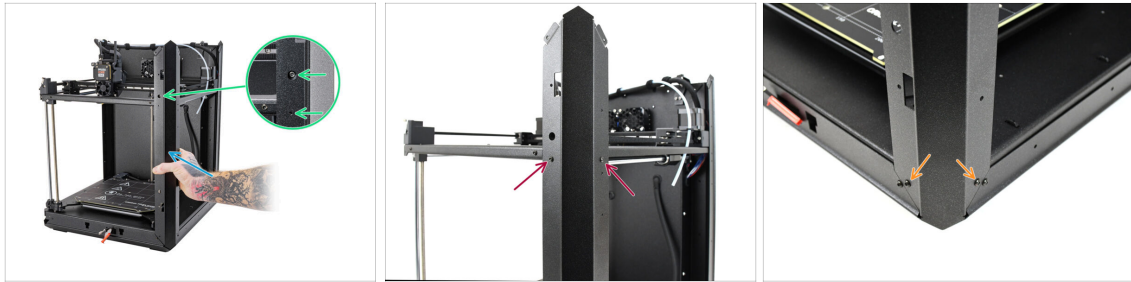


● **For the following steps, please prepare:**

- Front Left Profile (1x) *found in the Metal parts 1/3 package*
  - ① The one with the two circular openings on top.
- Vorderes rechtes Profil (1x) *gefunden im Paket „Metallteile 1/3“*
  - ① Das mit einer runden Öffnung oben.
- Schraube M3x4rT (8x)

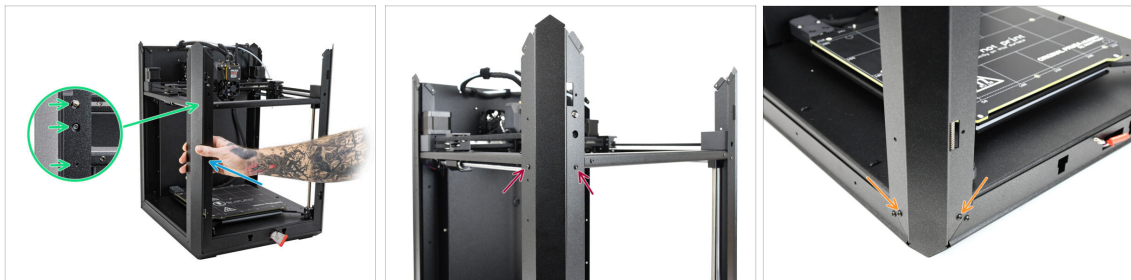


### SCHRITT 3 Installing the front right profile



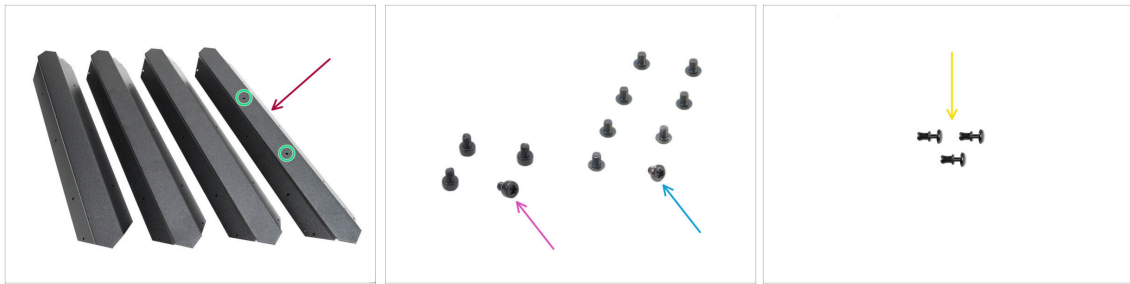
- Attach the Front Right Profile to the printer.
  - i Ensure you are using the correct profile—it should have **one large round opening** for the belt tensioning screw.
- Align the profile so that the calibration screw opening and the smaller bolt opening line up with the thread.
- Befestigen Sie das Profil mit zwei M3x4rT-Schrauben an der CoreXY-Baugruppe.
- Befestigen Sie das Profil unten mit den beiden M3x4rT-Schrauben.

### SCHRITT 4 Installieren des linken vorderen Profils



- Attach the Front Left Profile to the printer.
  - i Ensure you are using the correct profile—it should have **two large round openings** for the door sensor and the belt tensioning screw.
- Align the profile so that the openings match. **Be careful not to bend the door sensor lever!**
- Befestigen Sie das Profil mit zwei M3x4rT-Schrauben an der CoreXY-Baugruppe.
- Befestigen Sie das Profil unten mit den beiden M3x4rT-Schrauben.

## SCHRITT 5 Obere Profile: Vorbereitung der Teile



- Top Profile (4x) *found in the Metal parts 1/3 package*
- Note that one of the profiles has two openings in the middle—this one belongs at the back.
- Schraube M3x4rT (8x)
- Schraube M3x4 (4x) *mit dem unterschiedlichen Kopftyp*
- Nylon-Niete (3x)

## SCHRITT 6 Assembling the top profiles I.



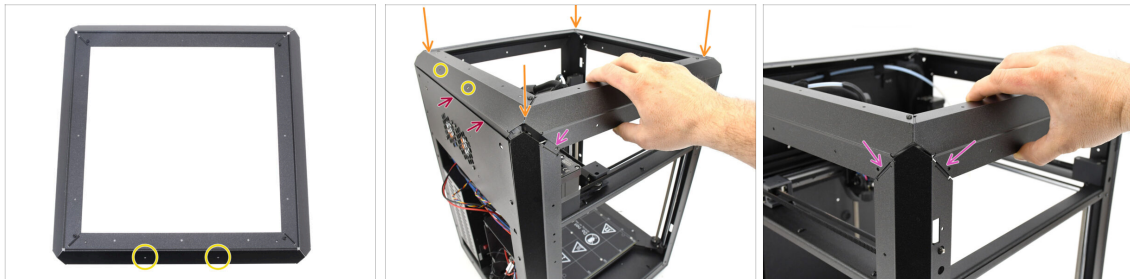
- ⚠ Be very careful when handling sharp sheet metal parts to avoid injury or damage.
- According to the picture, place the top profile with two holes on the flat side.
- Orient the part according to the picture. **Use the flange as a guide.**
- Platzieren Sie alle anderen der oberen Profile auf der linken Seite. Richten Sie das Teil gemäß der Abbildung aus. **Verwenden Sie den Flansch als Führung.**
- Befestigen Sie die beiden Profile aneinander.
  - ⚠ The flange of the front plate (blue arrow) must be inserted **under** the left universal profile (green arrow), not on top of it.
- Align the holes in both parts and join both parts together with the M3x4 screw.
- Using the same procedure, join the other two profiles to form a corner, securing them with an M3x4 screw.

## SCHRITT 7 Assembling the top profiles II.



- Attach the corner profile assembly to the first one, aligning the holes on the flanges with the holes in the profiles.
- ⚠ Ensure the flanges are positioned **underneath** the profiles.
- Join the both profile assemblies using two M3x4 screws.

## SCHRITT 8 Aligning the top profiles



- Find the profile with **two openings in the middle**—this part should be positioned at the **rear of the printer**.
- Add the top profile assembly onto the printer, making sure the two openings are facing the back.
- The protruding part of the rear profile must be positioned behind the back sheet metal plate.
- An den Seiten und an der Vorderseite müssen die Profile auf den Laschen mit den Gewindeöffnungen sitzen.

## SCHRITT 9 Installing the top profiles



- Once all the top profiles are properly aligned, fix them in place using the remaining 8 M3x4rT screws in the corners.
- Attach the back panel to the top profile with three nylon rivets.

## SCHRITT 10 CoreXY fixing screws: parts preparation



- For the following steps, please prepare:
- Schraube M3x4rT (4x)

## SCHRITT 11 Fixing the CoreXY assembly



- Align the CoreXY assembly so the threaded holes match the screw openings in the rear profiles. You may need to push the assembly upward to align the holes.
- Fix the CoreXY assembly using the four M3x4rT screws in the marked openings.

## SCHRITT 12 Side sensor base: parts preparation



- **For the following steps, please prepare:**
- Filament-sensor-body (1x)
- Filament-sensor-lever (1x)
- Filament-sensor-switch (1x)
- Schraube M3x10 (1x)
- 10x6x2mm magnet (2x) *found in the Electronics & Fasteners package*
- 7mm Ferromagnetic Ball (1x) *found in the Electronics & Fasteners package*
- M3w Unterlegscheibe (1x)

## SCHRITT 13 Assembling the side sensor base



- Insert one of the magnets into the dedicated opening in the Lever.
- Insert the ball into the corresponding opening on the inside of the sensor base.
- Insert the lever with the magnet into the Base.

**i** Der Teil mit dem Magneten sollte neben der Kugel positioniert werden.

Beachten Sie, dass die Kugel vom Magneten angezogen wird – stellen Sie sicher, dass sie sicher an ihrem Platz bleibt.

- Befestigen Sie den Hebel mit der M3w-Scheibe und der M3x10-Schraube. Ziehen Sie die Schraube vorerst nur ein paar Umdrehungen an - das reicht aus, um den Hebel in Position zu halten.

**!** Ziehen Sie die Schraube nicht vollständig fest. Andernfalls lässt sich der Hebel nicht bewegen und der Sensor funktioniert nicht!

## SCHRITT 14 Testen des Hebels



- Verify the lever is able to move freely.
- Wenn sich der Hebel nicht frei oder gar nicht bewegen lässt, lösen Sie die Schraube um eine Vierteldrehung und testen Sie die Bewegung erneut.

**!** Die Schraube darf nicht vollständig angezogen werden, sonst kann sich der Hebel nicht frei bewegen.

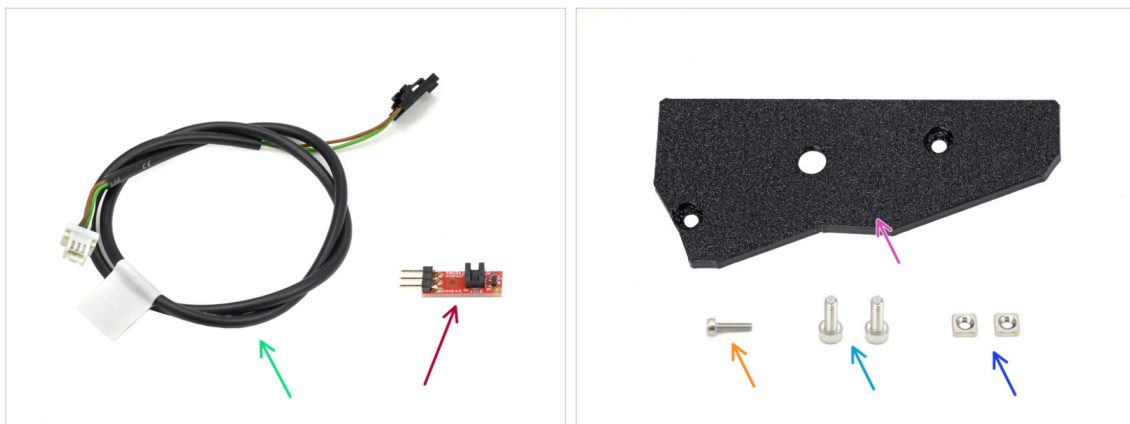


## SCHRITT 15 Zusammenbauen des Schalters



- Setzen Sie den zweiten 10x6x2 Magneten in den Filament-sensor-switch ein.
- Setzen Sie den Filament-sensor-switch in den Filament-sensor-body ein.
- Stellen Sie den Filament-sensor-switch in die linke Endposition, so dass sich die Magnete gegenüberstehen.
- Stellen Sie sicher, dass **die Magnete sich abstoßen** - sie sollten sich voneinander abstoßen.
- **Wenn sie sich anziehen** - zueinander ziehen: Entfernen Sie den Magneten vom Filament-sensor switch und drehen Sie seine Polarität um. Prüfen Sie es dann erneut.
- ⓘ *Pro-Tipp: Verwenden Sie einen der dünnen Inbus- oder Torx-Schlüssel, um den Magneten aus dem Filament-sensor-switch zu entfernen.*

## SCHRITT 16 IR Sensor: parts preparation



- **For the following steps, please prepare:**
- Side Filament Sensor Cable (1x) *found in the Electronics & Fasteners package*
- IR Filament Sensor (1x) *found in the Electronics & Chamber parts package*
- Side-Filament-Sensor-Cover (1x) *im Paket „Printed parts“ enthalten*
- Schraube M2x8 (1x)
- Schraube M3x10 (2x)
- M3nS Mutter (2x)

## SCHRITT 17 Connecting the IR sensor



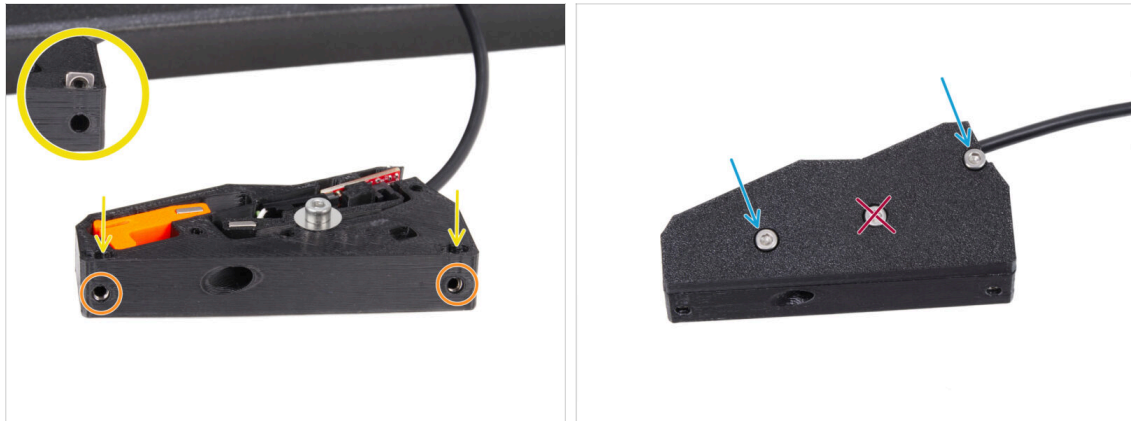
- 🟢 Plug the cable into the IR filament sensor.
- ⚠️ Ensure the connector is oriented correctly before plugging it in!
- 🟠 On CORE One, the brown cable must connect to the +5V pin.
- 🔵 Das weiße Kabel wird mit dem GND-Pin verbunden.

## SCHRITT 18 Installing the IR sensor



- 🟢 First, insert the cable into the groove. The black connector should be approximately in the middle of the sensor base.
- 🔴 Insert the IR sensor itself into the dedicated groove.
- 🟡 The lever must fit into the optical gate part of the sensor.
- 🟠 Achten Sie darauf, dass weder der Stecker noch die Kabel den Hebel berühren, da dies die korrekte Funktion des Sensors beeinträchtigen könnte.
- 🔵 Befestigen Sie den Sensor mit dem 1,5-mm-Innensechskantschlüssel mit der M2x8-Schraube.

## SCHRITT 19 Installing the side sensor cover



- ✚ Insert the two M3nS nuts into the designated openings. Use a 1.5mm Allen key to **push them all the way in.**
  - ✚ Look from the side to ensure the threads in the nuts align with the openings.
  - ✚ Add the cover part onto the assembly.
  - ✚ Befestigen Sie die Abdeckung mit zwei M3x8-Schrauben an den Seiten.
- ⚠ **Ziehen Sie die Schraube in der Mitte nicht fest! Andernfalls funktioniert der Sensor nicht mehr.**

## SCHRITT 20 Side filament sensor: parts preparation



- ✚ **For the following steps, please prepare:**
- ✚ Side Filament Sensor Assembly (1x) *you assembled earlier*
- ✚ Collet (1x) *found in the Electronics & Fasteners package*
- ✚ Kabelbinder (3x)

## SCHRITT 21 Installing the side filament sensor



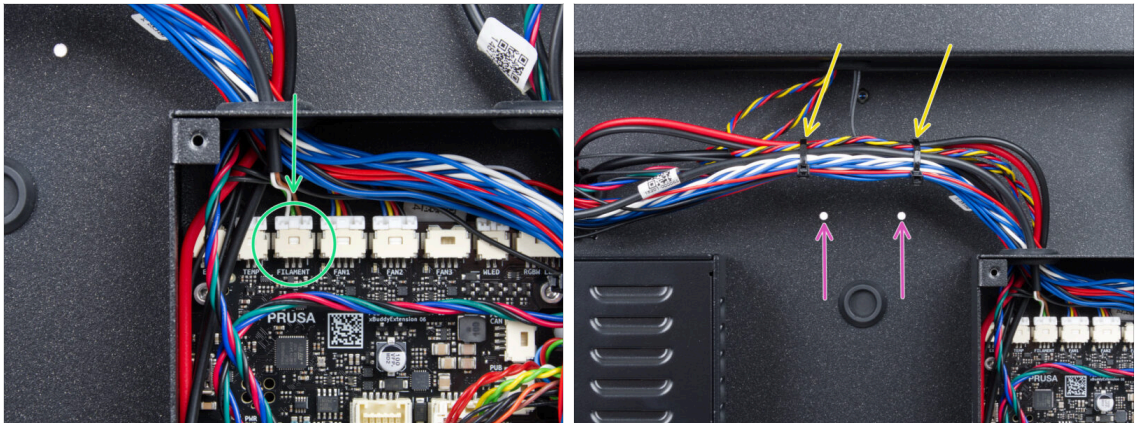
- Install one zip-tie into the marked openings. We will use it to attach a cable underneath the metal profile.
  - Setzen Sie die Spannzange in die markierte Öffnung an der Sensoreinheit ein.
  - Attach the sensor assembly onto the PTFE tube in the printer.
- ⚠ Achten Sie darauf, den Schlauch ganz hineinzudrücken!

## SCHRITT 22 Guide the filament sensor cable



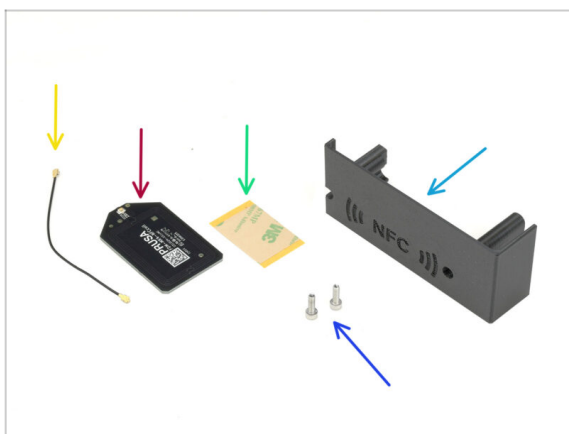
- Move the sensor assembly up, roughly to the middle of the printer's frame, to align the cable properly.
- Once in position, secure the cable underneath the metal profile using a zip-tie. Tighten the zip-tie lightly, allowing for cable adjustments if needed later. Cut off the excess zip-tie.
- Guide the sensor cable through the dedicated opening to the back of the printer.
- Führen Sie das Kabel auf der Rückseite des Druckers in die xBuddy-Box. Lassen Sie es dort erst einmal locker hängen.

## SCHRITT 23 Connecting the side filament sensor



- Connect the Side Filament Sensor cable into the connector labeled FILAMENT on top of the xBuddy extension board.
- i You can use needle-nose pliers to assist you, but be careful not to damage the cables.
- Use two zip-ties to clamp the cable bundle together in the marked area.
  - Befestigen Sie die Kabel in der **höchstmöglichen Position**, um sicherzustellen, dass sie die beiden Öffnungen im Blech darunter nicht verdecken.
  - ⚠ Ziehen Sie die Kabelbinder nicht zu fest an und spannen Sie die Kabel nicht zu sehr!

## SCHRITT 24 NFC Antenna: parts preparation



- For the following steps, please prepare:
  - El-box-cover (1x) found in the Printed parts package
  - Schraube M3x10 (2x)
  - NFCcoil (1x) findet sich im Electronics & Chamber parts Paket
  - Klebefolie 32 x 25 mm (1x) findet sich im Electronics & Chamber parts Paket
  - NFC coil cable (1x) found in the Electronics & Chamber parts package

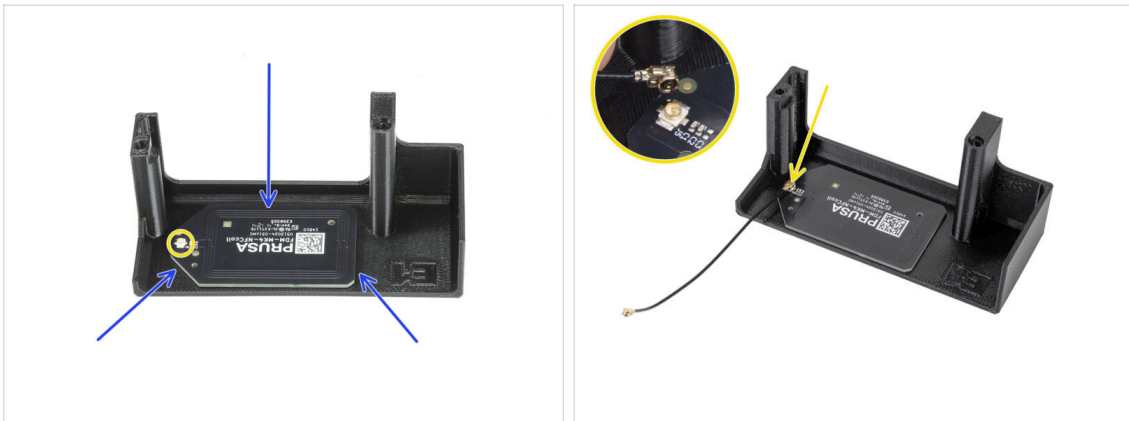


## SCHRITT 25 Applying the adhesive film



- Peel off the yellow protective film from the adhesive tape.
- Apply the film to the flat side of the NFC coil, ensuring it adheres properly.
- Peel of the remaining protective layer from the NFC coil.

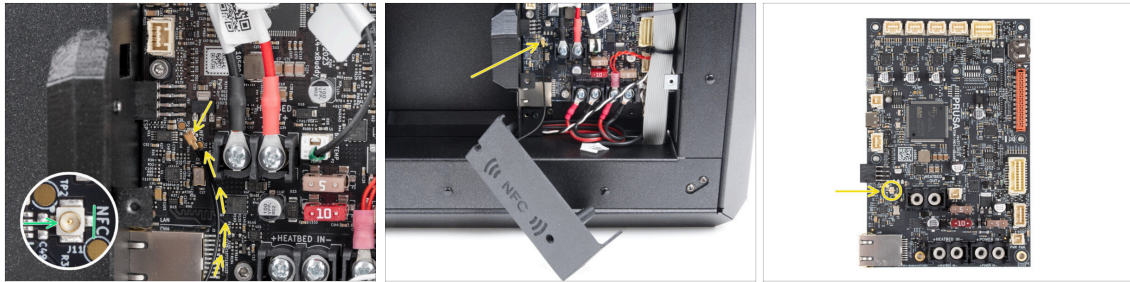
## SCHRITT 26 Installing the NFC Coil



- Stick the NFC coil onto the inner side of the EI-box cover, approximately as shown in the picture.
- ⓘ The small round connector should be positioned closer to the edge of the cover.
- Verbinden Sie das Kabel mit der Platine, indem Sie die Anschlüsse ausrichten und leicht drücken, bis Sie ein Klicken spüren. So stellen Sie eine sichere Verbindung her.
- ⚠ Seien Sie vorsichtig, wenn Sie das Kabel der NFC-Spule anschließen. Eine falsche Ausrichtung oder übermäßiger Druck können zu irreversiblen Schäden führen.

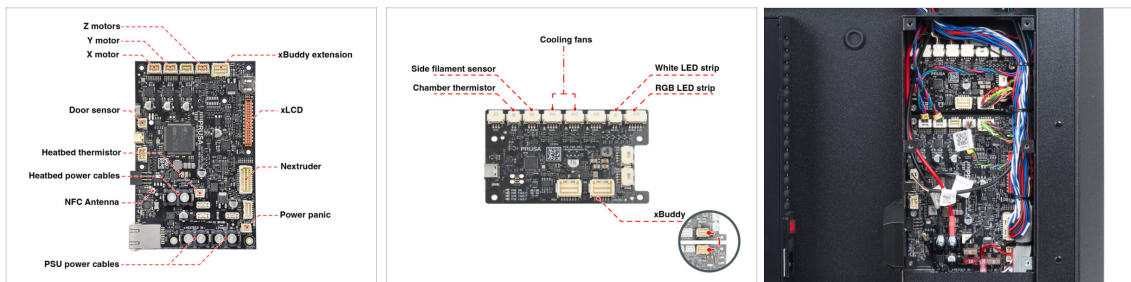


## SCHRITT 27 Connecting the NFC Coil



- 🟢 Locate the small round connector labeled NFC on the bottom left side of the xBuddy board.
- 🟡 Connect the NFC coil cable to the board by aligning the connectors and pressing lightly until you feel a click.

## SCHRITT 28 Verdrahtung prüfen



- 🟡 Use the pictures as a reference to verify your electronics connections.
- ⚠️ Make sure that all connectors are fully inserted and PSU cables properly tightened. Otherwise, there is a risk of damage to the printer!

## SCHRITT 29 Preparing the electronics cover



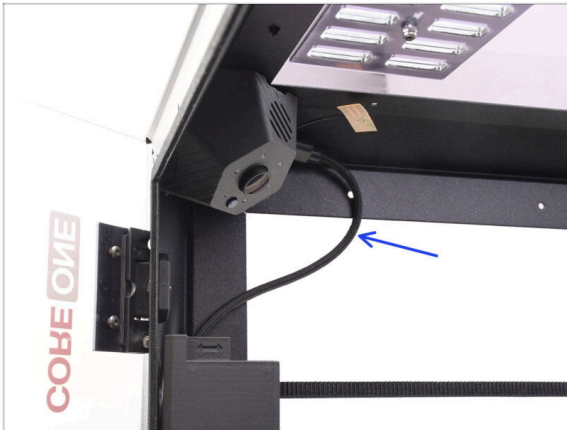
- Push two M3x10 screws through the EI-box-cover.

## SCHRITT 30 Installing the electronics cover



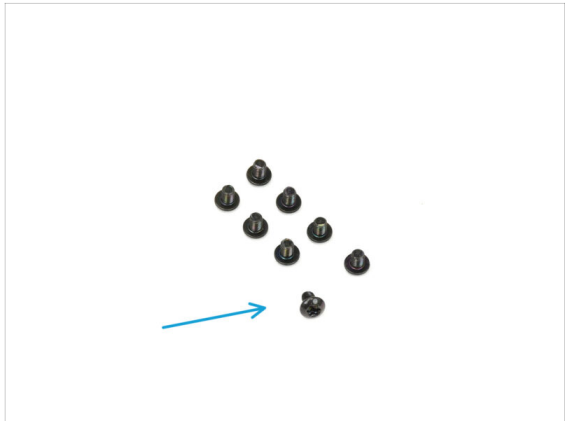
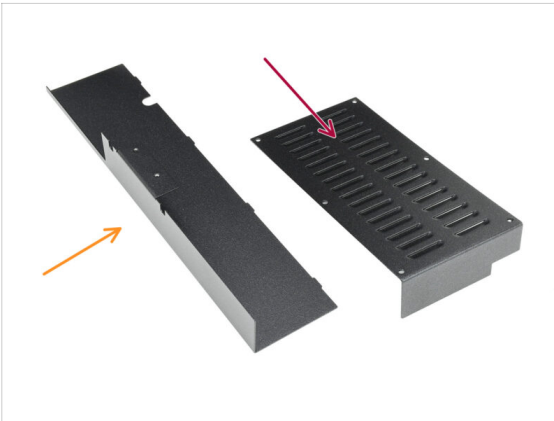
- Ensure the threaded holes on the bottom of the xBuddy box are not obstructed by cables.
  - If so, rearrange the cables to allow clear access.
  - Richten Sie die Abdeckung an der Öffnung in der xBuddy-Box aus und befestigen Sie sie, indem Sie die Schrauben anziehen.
  - Verlegen Sie das NFC-Kabel durch den Zwischenraum zwischen dem Ethernet-Anschluss und den Stromkabeln des Netzteils.
- ⚠ Avoid running it through the Ethernet connector or the power cables. The cable may be damaged when covering the xBuddy box.**

## SCHRITT 31 Buddy3D Kamera Hinweis



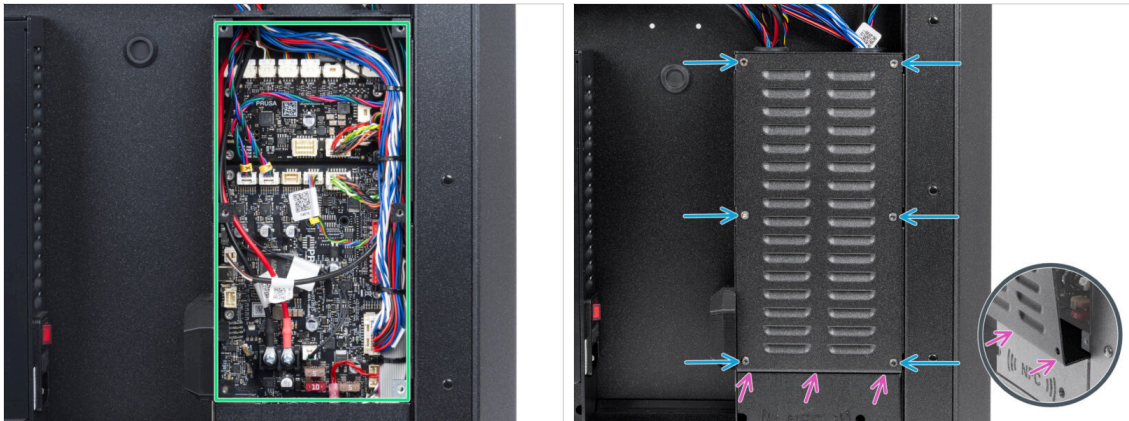
- i** Für zukünftige Benutzer der Buddy3D Kamera:
- Wenn Sie die Buddy3D Kamera verwenden möchten, haben Sie das USB-Kabel bereits installiert.
- 📌** Ausführliche Informationen zur Montage und zum Anschluss der Buddy3D Kamera finden Sie in dieser Anleitung:  
**Buddy3D Kamera für CORE One Installation**

## SCHRITT 32 xBuddy cover: parts preparation



- For the following steps, please prepare:**
- Sheet metal back cover (1x) *found in the Metal parts 2/3 package*
  - xBuddy Abdeckung (1x) *gefunden in der Metal parts 3/3-Verpackung*
  - Schraube M3x4rT (8x)

## SCHRITT 33 Installing the xBuddy cover



- Ordnen Sie die Kabel im Inneren der xBuddy-Box wie in der Abbildung gezeigt an.
- Carefully cover the xBuddy box by first sliding the bent part of the cover into the box.
- ⚠ **Vermeiden Sie das Einklemmen der Kabel. Überprüfen Sie die Position des NFC-Spulenkabels.**
- Befestigen Sie die Abdeckung der xBuddy-Box mit den sechs M3x4rT-Schrauben.

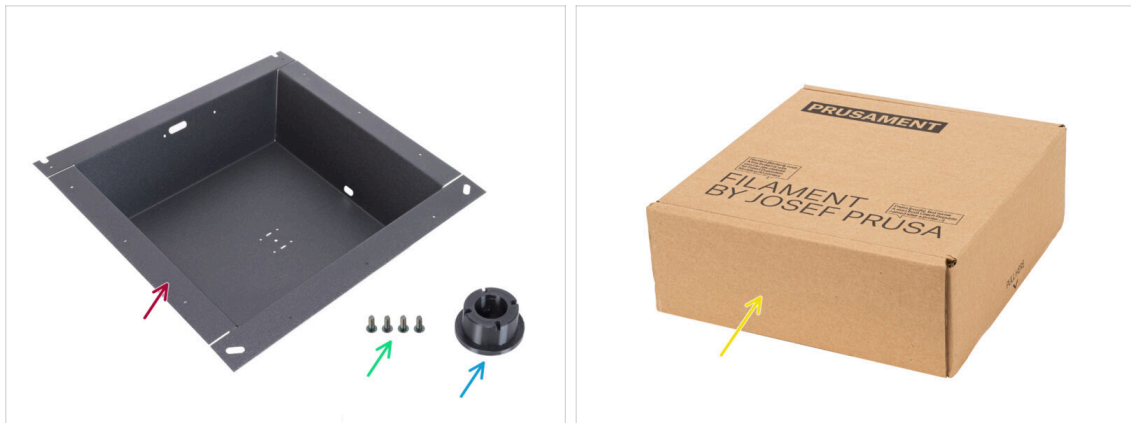
## SCHRITT 34 Installing the rear cover



- Align the rear sheet metal cover so that the cables can run through the "tray".
- Place the rear sheet metal cover into the recess. Push it toward the printer, then move it upward to engage it.
- Es gibt vier Laschen, die in das Druckergehäuse einrasten sollten.
- Befestigen Sie die hintere Abdeckung mit zwei M3x4rT-Schrauben von der Innenseite des Druckers aus.



## SCHRITT 35 Right side: parts preparation



For the following steps, please prepare:

Right side sheet metal (1x) found in the Metal parts 2/3 package

⚠ Das korrekte Teil für die rechte Seite lässt sich leicht an den Schraubenöffnungen in der Mitte erkennen.

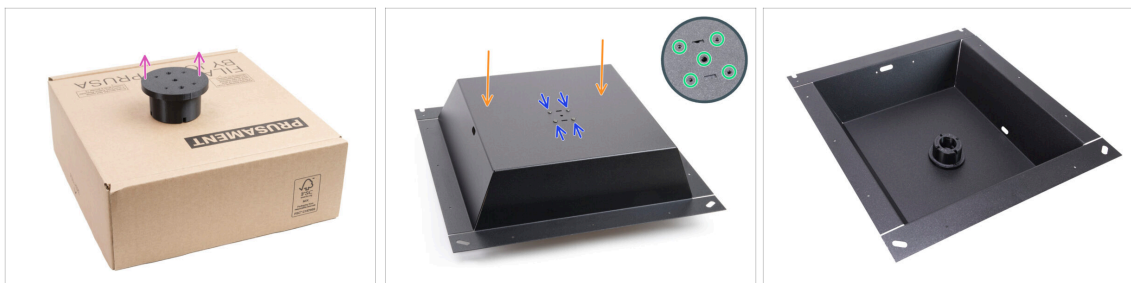
Schraube M3x8rT (4x) finden Sie in der Verpackung von Electronics & Fasteners

Puck-universal (1x)

Beliebiger Pappkarton (1x)

📌 Tipp: Ein Prusament-Karton funktioniert gut.

## SCHRITT 36 Installieren des Spulenhalter-puck



Legen Sie den Puck-universal so auf den Karton, dass die Schraublöcher nach oben zeigen.

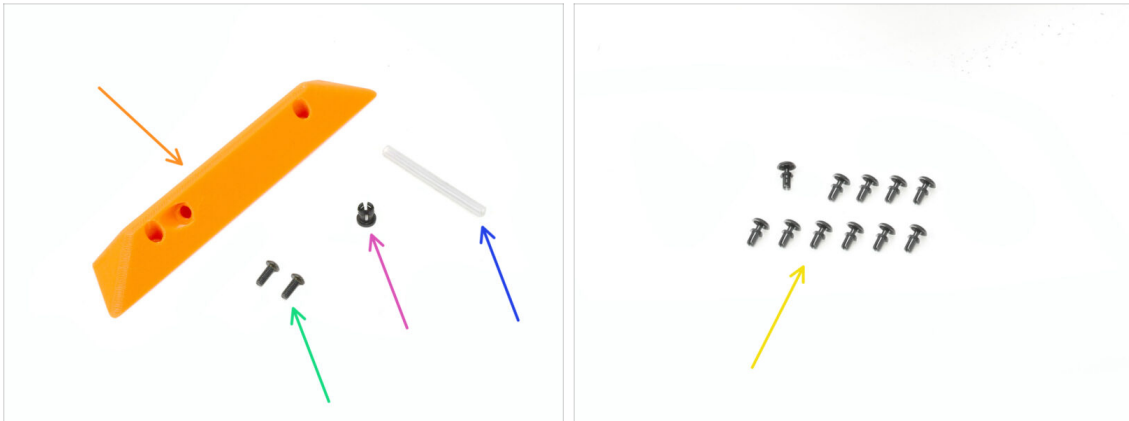
Setzen Sie die rechte Platte vorsichtig auf den Puck-universal und positionieren Sie sie in der Mitte der Box.

Richten Sie die Löcher im Puck-universal mit den Löchern in der rechten Platte aus.

Befestigen Sie den Puck-universal mit vier Schrauben M3x8rT.

ⓘ Die Schrauben können sich beim Anziehen schwergängig anfühlen, da sie ihr eigenes Gewinde im Inneren des Teils schneiden.

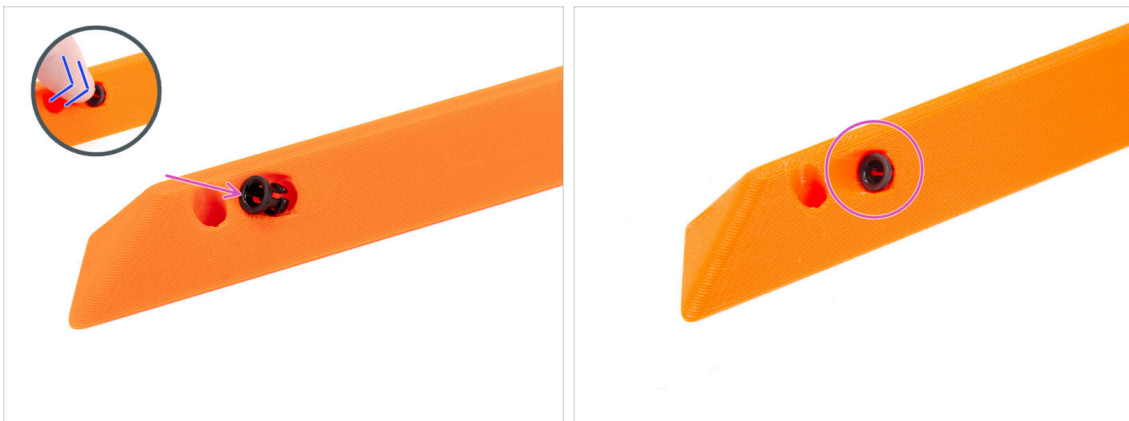
## SCHRITT 37 Right handle: parts preparation



For the following steps, prepare:

- Side Handle (1x) *found in the Printed parts package*
- Schraube M3x8rT (2x)
- Spannzange (1x) *finden Sie in der Verpackung von Electronics & Fasteners*
- PTFE Tube 4 x 2.5 x 45 mm (1x) *found in the CoreXY parts + Hinges set package (together with hinges parts)*
- Nylon-Niete (11x)

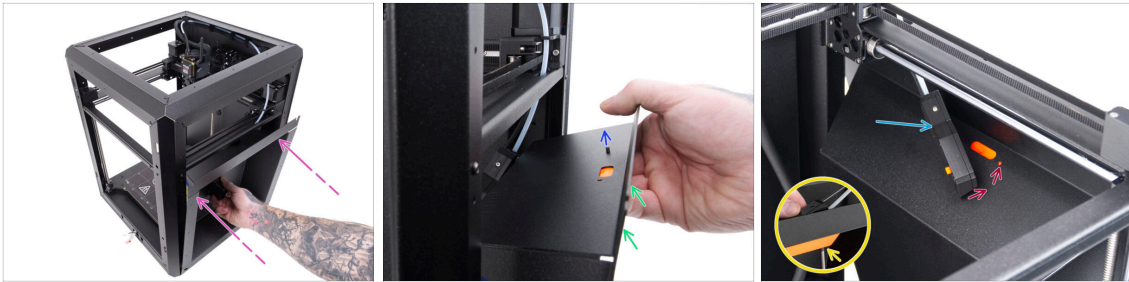
## SCHRITT 38 Einbau der Spannzange



- Insert the collet into the handle.
- Push it all the way in.

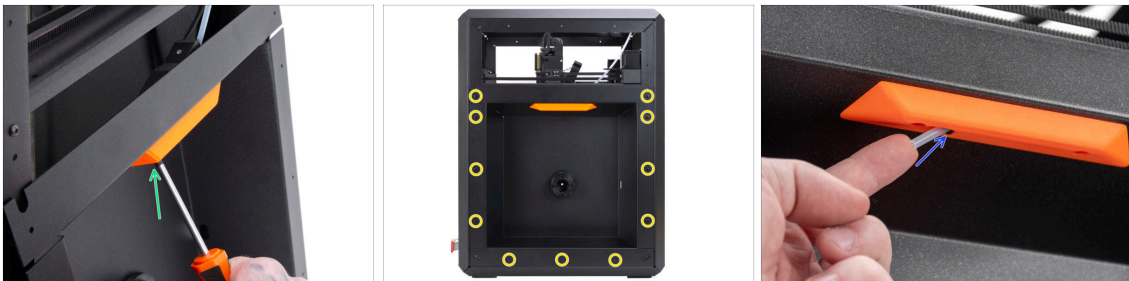


## SCHRITT 39 Montieren des Griffs



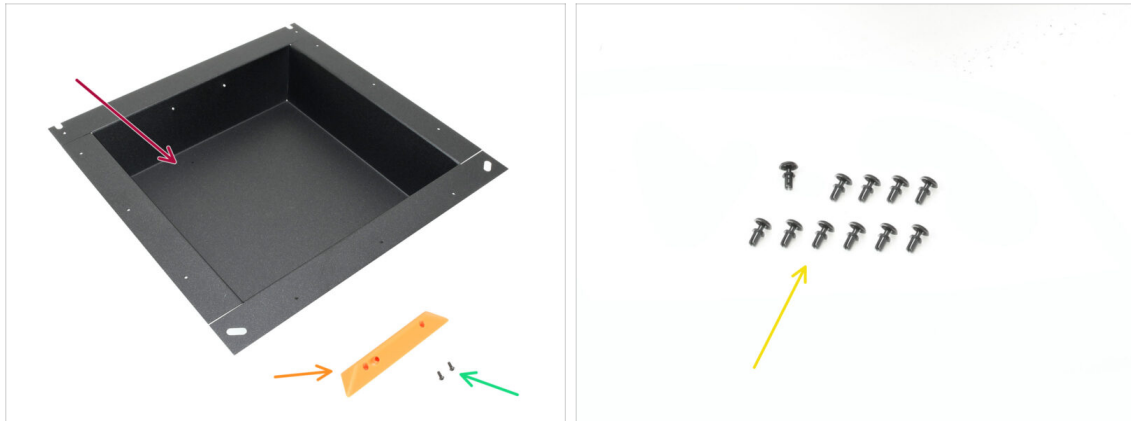
- ✦ Place the right-side metal sheet assembly on the right side of the printer. Ensure the U-shaped cutouts are facing upwards.
- ✦ Attach the right handle to the right metal sheet.
- ✦ Schieben Sie eine M3x8rT-Schraube durch das hintere Loch im Griff und dem Blech.
- ✦ Befestigen Sie die seitliche Filament-Sensoreinheit an der Schraube.
- ⚠ **Do not pull the side sensor assembly too far; bring the right side metal sheet as close as possible.**
- ✦ Tighten the screw just slightly—the nut must remain free to move.
- ✦ Align the side filament sensor with the front screw hole in the metal sheet and the handle.

## SCHRITT 40 Fixing the right side



- ✦ Using the second M3x8rT screw, secure the right handle and the side filament sensor to the right metal sheet.
- ✦ Secure the side sheet metal to the printer using the 11 Nylon rivets.
- ✦ Führen Sie den kurzen PTFE-Schlauch 4 x 2,5 x 45 in die Spannzange ein. Schieben Sie ihn vollständig hinein.
- ⓘ Ein Teil des PTFE-Schlauchs wird aus dem Griff herausragen.

## SCHRITT 41 Left side: parts preparation



### For the following steps, prepare:

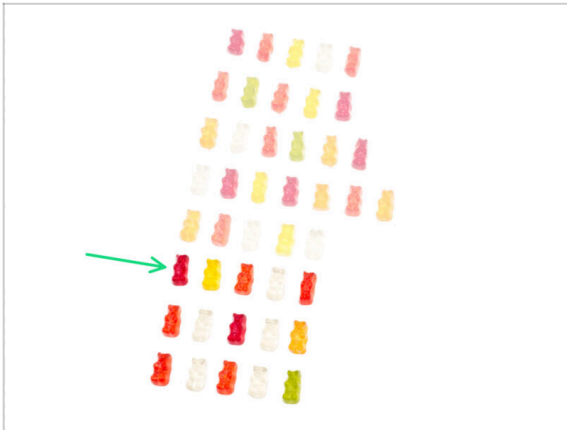
- Left side sheet metal (1x) found in the Metal parts 2/3 package
- Seitengriff (1x) im Paket „Printed parts“ enthalten
- Schraube M3x5rT (2x)
- Nylon-Niete (11x)

## SCHRITT 42 Installing the left side



- Align the handle with the threaded openings in the sheet metal.
- Attach the handle using the two M3x5rT screws.
- Befestigen Sie das seitliche Blech mit 11 Nylon-Nieten am Drucker.

## SCHRITT 43 Haribo Zeit!



- Well done—fuel up for the next challenge!
- Eat the sixth row.
- So nahe dran! Aber **Finger weg von den letzten Gummibärchen!**

## SCHRITT 44 Abgeschlossen

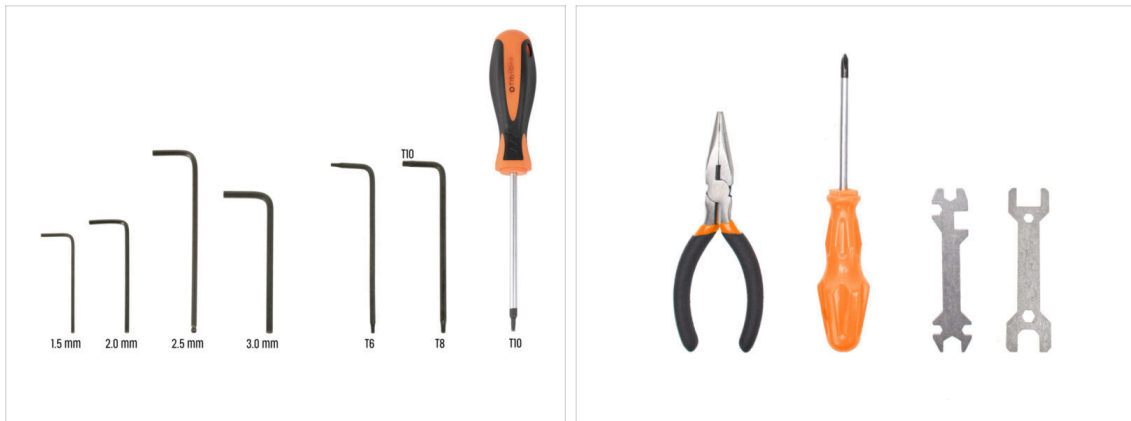


- Congratulations! You've successfully assembled the entire body.
- Let's move to the next chapter.

## 8. Trim, Door & xLCD



## SCHRITT 1 Tools necessary for this chapter



● **For the following steps, prepare:**

- 2,5mm Innensechskantschlüssel
- T10 Innensechsrund Schlüssel
- Spitzzange

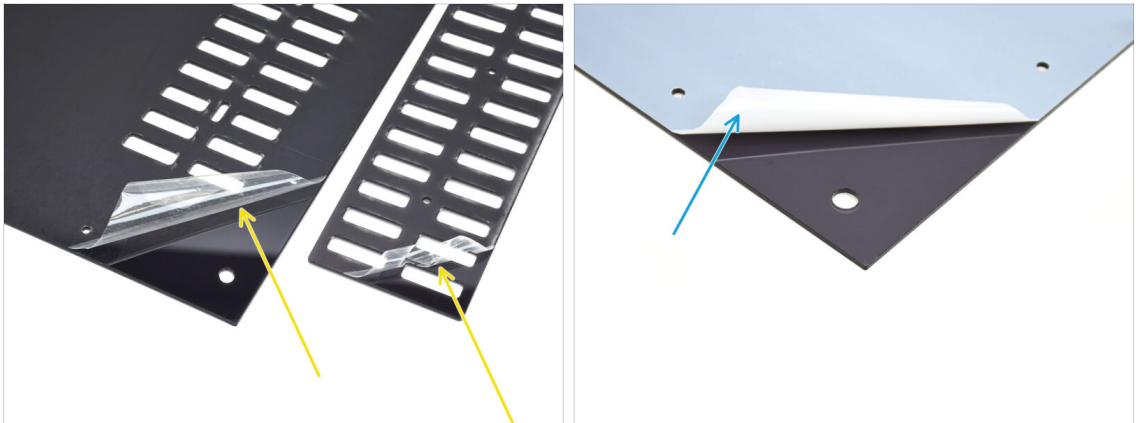
## SCHRITT 2 Top cover: parts preparation



● **For the following steps, prepare:**

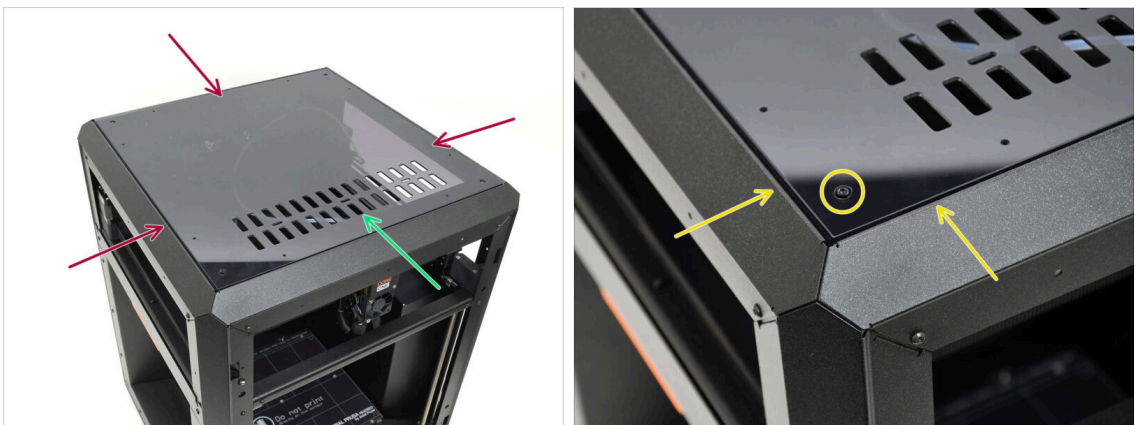
- Top cover (1x) *found in the Plexi set package*
- Vent cover (1x) *found in the Plexi set package*
- M3nN Mutter (3x)
- Insulating insert (3x) *found in the Electronics & Fasteners package*
- **i** Dieses Teil gibt es entweder in grau oder schwarz. Die Form ist jedoch identisch und hat keinen Einfluss auf das Verfahren.
- Schraube M3x12rT (3x)
- Nylon-Niete (4x)
- Upg-vent-block

### SCHRITT 3 Entfernen der Folie



- First, remove the protection foil from both the plastic sheets.
- Flip the parts around and remove the protective foil from the other sides.

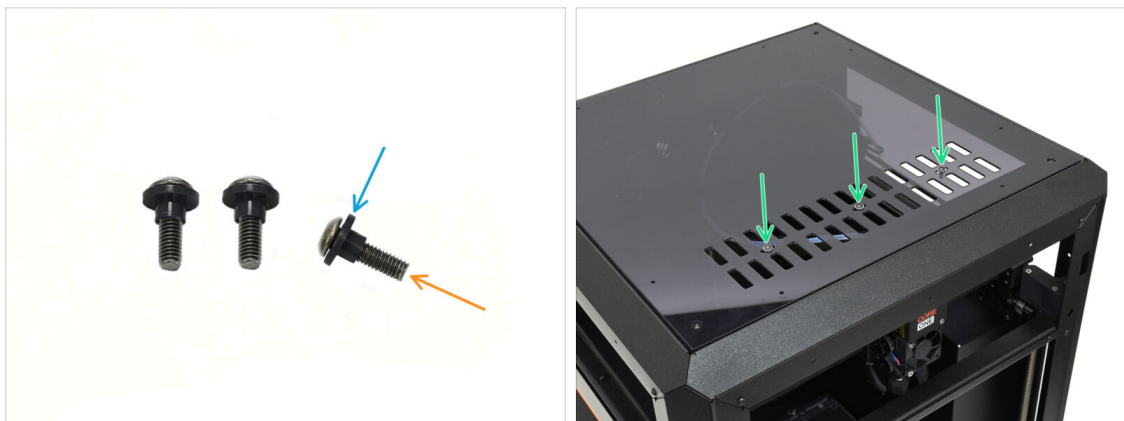
### SCHRITT 4 Test-fitting the top cover



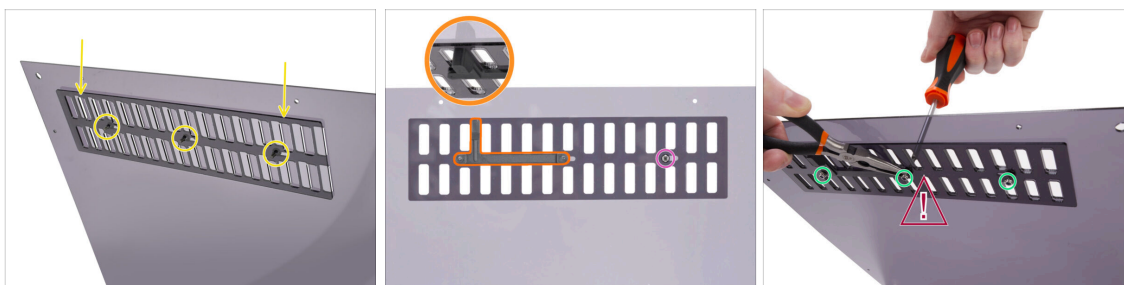
- Lay down the top cover onto the printer.
- The part with the vent openings should be oriented towards the front of the printer.
- If oriented correctly, the cover will align with the recess, and the bolt heads in the corners will fit into the cutouts.
- i** If the bolt openings don't align, flip the cover.

Spoiler alert: The cover isn't symmetrical!



**SCHRITT 5** Assembling the top cover I.

- Führen Sie alle drei M3x12rT-Schrauben durch die Isoliereinsätze.
- Make sure the flanged part of the insert is oriented toward the screw head.
- Insert the screws with the inserts through the three slot openings in the vent.

**SCHRITT 6** Assembling the top cover II.

- Align the vent cover with the screw ends on the bottom.
  - Ziehen Sie die ganz rechte M3nN-Mutter auf der M3x12rT-Schraube handfest an, um die Abdeckung zu fixieren.
  - Bringen Sie den Upg-Vent-Block an der Lüftungsabdeckung an. Achten Sie darauf, dass er richtig positioniert ist.
  - Befestigen Sie den Upg-vent-block mit M3nN-Muttern an der Lüftungsabdeckung. Verwenden Sie eine Spitzzange, um die Muttern festzuhalten, während Sie die Schrauben anziehen.
- ⚠ The screw must be tight enough just to remove the slack. It must remain loose, or the ventilation cover won't open and close properly.

## SCHRITT 7 Belüftung testen



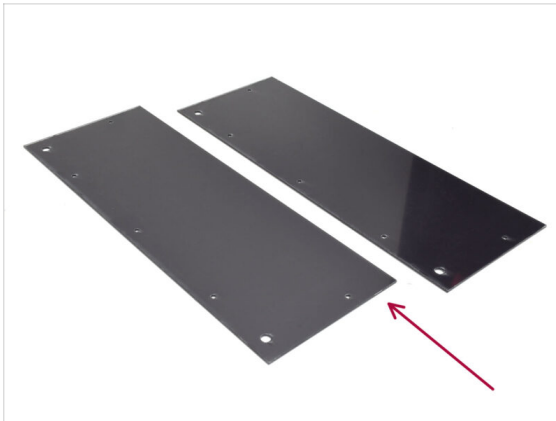
- Try moving one of the three screws with your hand.
- ⓘ The vent openings must open and close smoothly without effort.
- ⚠ If movement is difficult, loosen the screw that is restricting it.

## SCHRITT 8 Installing the top cover



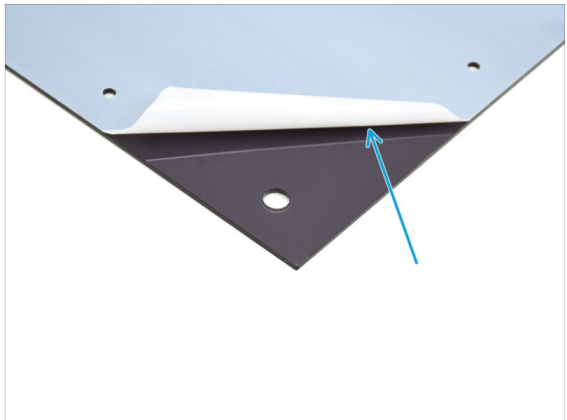
- Richten Sie die Abdeckung an der Aussparung am Drucker aus und achten Sie darauf, dass die Lüftungsöffnung nach vorne zeigt.
- Secure the cover to the frame using four nylon rivets in the marked openings.
- ⓘ There are eight openings, but four rivets should be sufficient.

## SCHRITT 9 Side covers: parts preparation



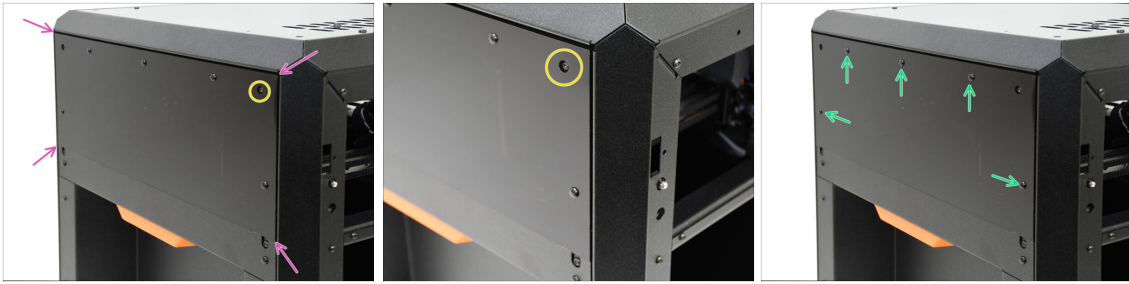
- For the following steps, prepare:
- Side Cover (2x) *found in the Plexi set package*
- Nylon-Niete (10x)

## SCHRITT 10 Entfernen der Folie



- Remove the protective foil from both the side covers.
- Remove the protective foil from the other sides of both the side covers.

## SCHRITT 11 Covering the left side



- ✎ Align the cover with the recess on the left side of the printer.
- ✎ The protruding screws on the printer must align with the larger openings in the cover.
- ✎ Secure the cover to the frame using five nylon rivets in the marked openings.

## SCHRITT 12 Covering the right side



- ✎ Align the other cover with the recess on the right side of the printer.
- ✎ Secure the cover to the frame using five nylon rivets in the marked openings.

## SCHRITT 13 xLCD: Teile Vorbereitung



- **Bereiten Sie bitte für die folgenden Schritte vor:**
- xLCD (1x) *found in the Electronics package*
- xLCD Front Cover (1x) *found in the Printed parts package*
- xLCD Display-mount (1x) *found in the Printed parts package*
- Knob (1x) *found in the Printed parts package*
- Schraube 3x8sT (4x)
- Faston connector (1x) *found in the Electronics package*

## SCHRITT 14 Assembling the xLCD I.



- Wir empfehlen, die Frontabdeckung mit der Vorderseite nach unten auf eine Kartonkante oder Tischkante zu legen, um Platz für den Encoderknopf zu schaffen.
- Remove the protective foil from the xLCD.
- Insert the xLCD into the front cover.

**SCHRITT 15** Assembling the xLCD II.

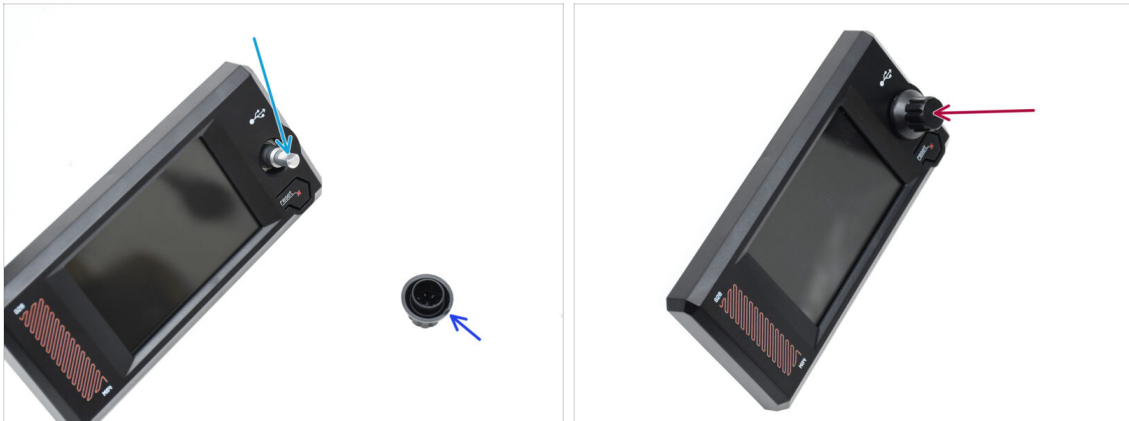
- 🟠 Decken Sie die Baugruppe mit dem hinteren Teil ab.
- 🟠 Wenn Sie eine ältere Version der gedruckten hinteren Abdeckung haben, muss sie am xLCD selbst in der Ecke einhaken. Bei der aktuellen Version kann der hintere Teil einfach aufgelegt werden.
- 🟢 Fix the parts together using **JUST THREE** 3x8sT screws in the marked openings.
- ⚠️ Setzen Sie die Schraube nicht in die vierte Öffnung neben dem langen Anschluss für den xLCD-Anschluss ein, der durch den Ausschnitt sichtbar ist. Lassen Sie sie vorerst leer.

**SCHRITT 16** Installing the FE Faston connector

- 🟢 Kommen wir nun zur vierten Schraubenöffnung – hier werden wir den Erdungs-Faston-Steckverbinder anbringen.
- 🟡 Using needle-nose pliers, carefully maneuver the grounding faston connector over the screw opening, ensuring the holes line up.
- 🟢 Secure the connector in place using one 3x8sT screw, making sure it stays lined up as indicated.
- ⚠️ To prevent damaging some of the surrounding electronic components, be careful and make sure the connector doesn't spin, while tightening it.



## SCHRITT 17 Installing the LCD knob



- Auf der Encoderwelle befindet sich eine flache Stelle. Drehen Sie den Encoder so, dass die flache Stelle nach oben zeigt.
- There is a small gate scar on the injection-molded knob, which can serve as an orientation mark.
- Attach the knob onto the shaft, making sure the mark on the knob is facing up.

## SCHRITT 18 xLCD bezel: parts preparation



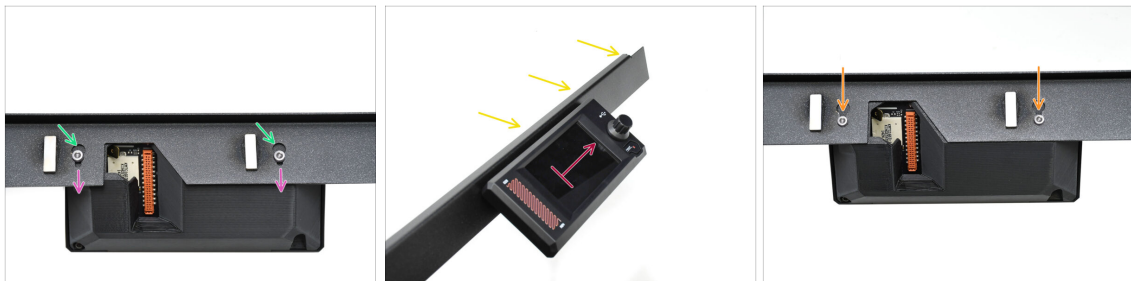
- **Bereiten Sie bitte für die folgenden Schritte vor:**
- xLCD (1x) *found in the Electronics package*
- M3nS Mutter (2x)
- Schraube M3x6 (2x)
- Bezel (1x) *found in the Metal parts 2/3 package*

## SCHRITT 19 Mounting the xLCD I.



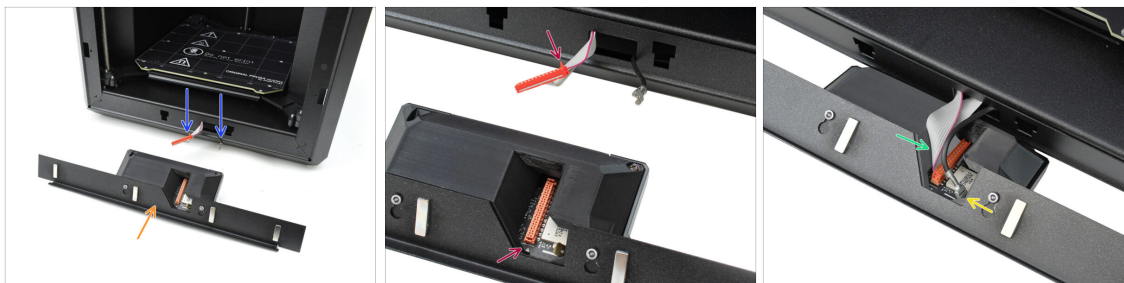
- Setzen Sie die beiden M3nS-Muttern in die dafür vorgesehenen Öffnungen auf der Rückseite der xLCD-Baugruppe ein.
- Push the nuts all the way in until the threads line up with the screw openings.
- Attach two M3x6 screws into the openings. Do not screw them all the way in.
- Leave a gap under the screw heads.

## SCHRITT 20 Mounting the xLCD II.



- Befestigen Sie die xLCD-Baugruppe an der Blende.
- Insert the screw heads into the keyhole openings.
- Slide the xLCD assembly so that the screw heads engage into the narrower parts of the keyholes.
- If assembled correctly, the LCD should be pointing up...
- ...While the bent lip on the Bezel is on top.
- Push the screws all the way into the narrow part of the keyhole on both sides. Then, tighten the screws.

## SCHRITT 21 Installing the xLCD assembly



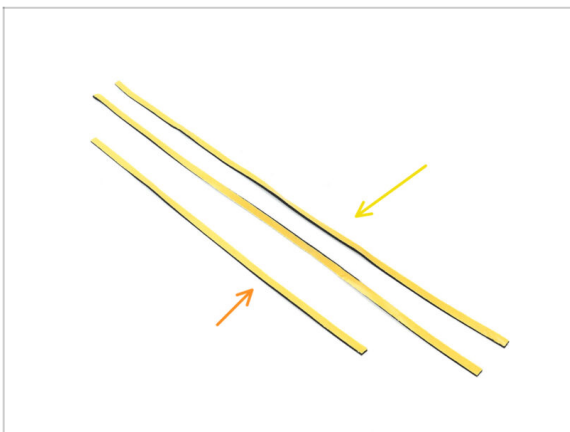
- 🟠 Stellen Sie die xLCD-Baugruppe wie abgebildet vor den Drucker.
- 🟡 Pull the appropriate cables out from the front of the printer to make connecting them easier.
- 🔴 There is a small red tab on the main connector. This tab must be oriented towards the triangle symbol on the PCB.
- 🟢 Connect the main connector into the xLCD.
- 🟡 Connect the grounding faston connector.

## SCHRITT 22 Securing the xLCD assembly



- 🔴 Heben Sie die xLCD-Baugruppe vorsichtig nach oben.
- ⚠️ **Proceed carefully to ensure none of the cables get pinched or disconnected.**
- 🟡 Hook the tiny tab on the left side of the bezel behind the left vertical profile of the printer.
- 🟠 Gently lift the bottom part of the xLCD assembly to allow for smoother tab engagement and extra wiggle room.
- 🟡 Hook the tab on the right side into the printer's right profile.

## SCHRITT 23 Door seal: parts preparation



- ◆ **Bereiten Sie bitte für die folgenden Schritte vor:**
- ◆ Side door seal, a longer one (2x) *found in the Electronics & Fasteners package*
- ◆ Top door seal, a shorter one (1x) *found in the Electronics & Fasteners package*
- i The color of the protective layer may vary.

## SCHRITT 24 Attaching the top seal



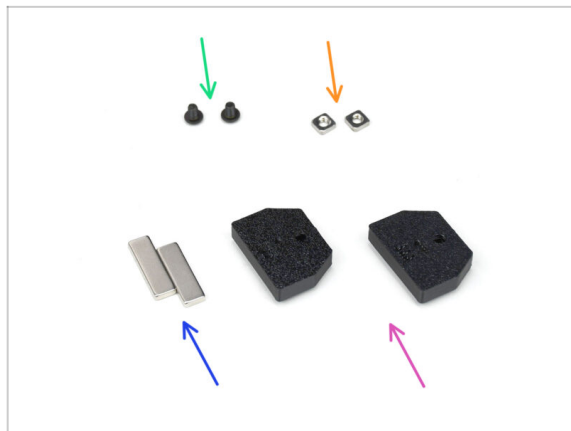
- ◆ Nehmen Sie die **KÜRZERE** Dichtung.
- ◆ Peel off the start of the protective foil. No need to remove it entirely yet.
  - i No need to remove it entirely yet. For easier installation, you can peel it off gradually as you go.
- ◆ Start applying the seal along the top edge of the printer's frame.
  - ◆ Begin offset from the corner by a distance equal to the seal thickness.
- ◆ Apply the seal along the top edge, leaving the end offset from the corner, just like on the other side.

## SCHRITT 25 Attaching the side seals



- ✦ Bringen Sie die längere Türdichtung an, beginnend am Ende der Dichtung oben.
- ✦ Work your way from the top down.
- ❗ With needle-nose pliers, trim the excess.
- ✦ Using the same technique, apply the remaining long seal along the left edge of the printer's frame.

## SCHRITT 26 Magnet holders: parts preparation



- ✦ Bereiten Sie bitte für die folgenden Schritte vor:
- ✦ Schraube M3x5rT (2x)
- ✦ M3nS Mutter (2x)
- ✦ 20x6x2 Magnet (2x) *found in the Electronics & Fasteners package*
- ⚠ **Keep the magnets apart at a sufficient distance. They can break each other!**
- ✦ Magnet Holder (2x) *found in the Printed parts package*

## SCHRITT 27 Assembling the magnet holders



- ✚ Setzen Sie die M3nS-Muttern in die entsprechenden Öffnungen in den Magnethaltern ein.
- ✚ Push the nuts all the way in, until the thread aligns with the screw opening.
- ✚ Insert the magnets into the corresponding pockets in the holders. Push them all the way in.
- ⓘ The orientation of the magnets does not matter.

## SCHRITT 28 Installing the magnet holders



- ✚ Führen Sie die Magnethalterung von der Innenseite des Druckers aus in die entsprechende untere Öffnung im rechten Metallprofil ein.
- ⚠ Ensure the protruding rectangular pocket fits into the cutout.
- ✚ Secure the assembly in place using the M3x5rT screw.
- ✚ Using the same technique, install the other magnet holder into the top opening on the right side.

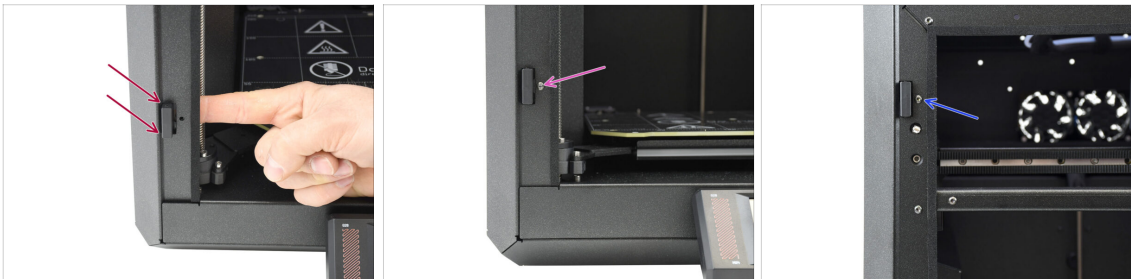


## SCHRITT 29 Scharniere: Vorbereitung der Teile



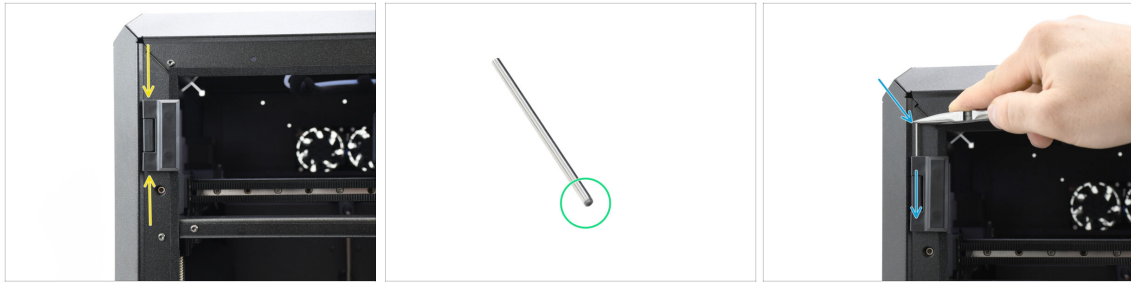
- **Bereiten Sie bitte für die folgenden Schritte vor:**
- Door-hinge-in (2x) found in the CoreXY + Hinges set package
- Door-hinge-out (2x) found in the CoreXY + Hinges set package
- Hinge Pin 2 x 40 mm (2x) found in the Electronics & Fasteners package
- Schraube M3x5rT (2x)

## SCHRITT 30 Installing the door-hinge-in parts



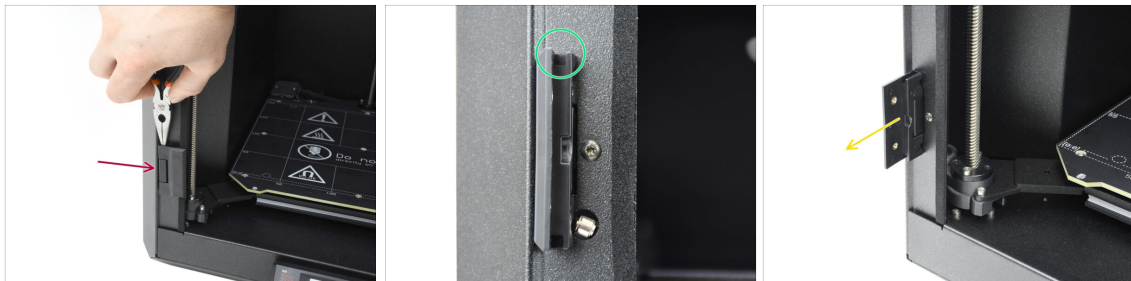
- Führen Sie das Türscharnier door-hinge-in von der Innenseite des Druckers aus in die untere rechteckige Öffnung im linken Seitenprofil ein. Der hervorstehende Teil sollte nach vorne durchgehen.
- Fix the door-hinge-in in place using the M3x5rT screw.
- Using the same technique, install the other door-hinge-in into the opening on top.

## SCHRITT 31 Installing the door-hinge-out I.



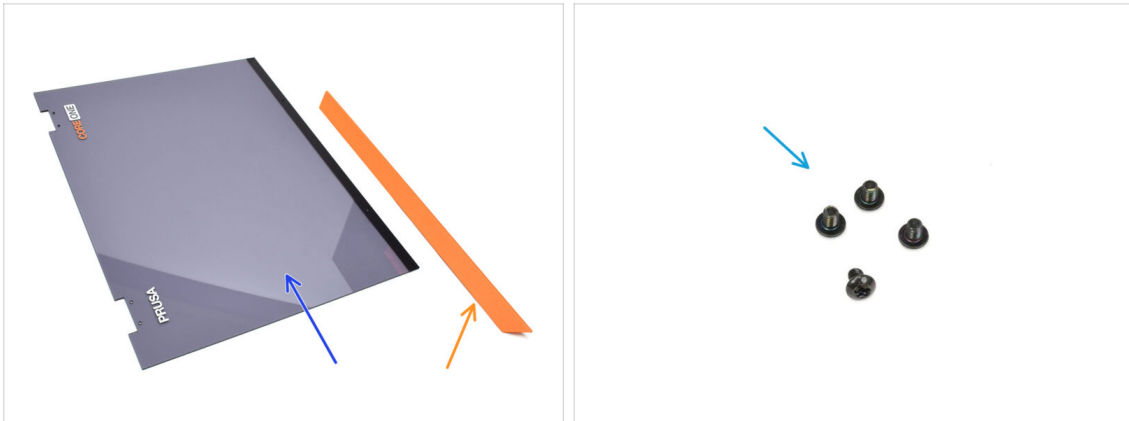
- ✦ Richten Sie das Door-hinge-out am Door-hinge-in aus.
- ✦ The chamfered end of the hinge pin should be inserted first to make assembly easier.
- ✦ Insert the pin from the top of the door-hinge-out, guiding it through the door-hinge-in until it is fully inserted.
- ❗ Use the tip of needle-nose pliers to press the pin in securely.

## SCHRITT 32 Installing the door-hinge-out II.



- ✦ Verwenden Sie dieselbe Technik, um das untere Türscharnier door-hinge-out zu installieren und die Scharnierbaugruppe zu vervollständigen.
  - ✦ Look into the grooves on the door-hinge-out parts and verify that the pins are fully inserted.
- No part of the pin should be visible above the bottom surface in the groove.
- ✦ Open up both the hinges.

## SCHRITT 33 Door panel: parts preparation



● **Bereiten Sie bitte für die folgenden Schritte vor:**

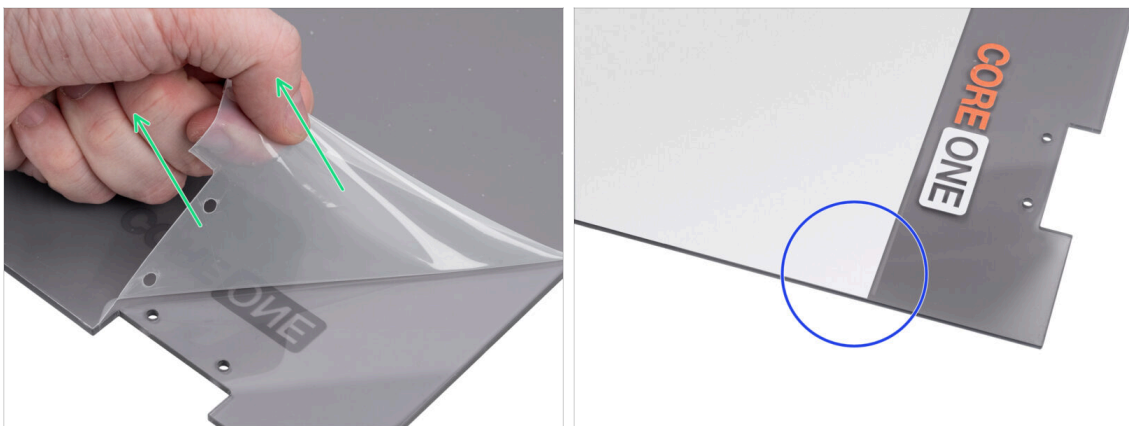
● Door (1x) *found in the Plexi set package*

① Das Türblatt ist mit **CORE ONE** vorbeschriftet. Keine Sorge, **das ist so gewollt!** Im letzten Schritt werden Sie den + Aufkleber anbringen.

● Door handle (1x) *found in the Metal parts 2/3 package*

● Schraube M3x5rT (4x)

## SCHRITT 34 Door panel: removing the protective film



● **Die Türverkleidung ist auf beiden Seiten mit einer Schutzfolie versehen.** Eine bedeckt die gesamte Oberfläche, die andere nur den mittleren Bereich.

● Peel off the film covering the entire door; it's lightly transparent.

● You can remove the center protective film (white) now or after mounting the panel to protect the surface during handling.

① This protective film does not interfere with the installation of the hinges or handle.

## SCHRITT 35 Installing the door panel



- Richten Sie die Tür an den Scharnieren aus. Die Ausschnitte an der Tür sollten in die Nuten oben und unten an den Türblättern passen.
- Make sure the door is oriented so that the signs on the door are pointing outward.
- Slide the door all the way into both the hinges.
- Fix the door to the hinges using four M3x5rT screws. Start with the top one. Then, do the bottom.

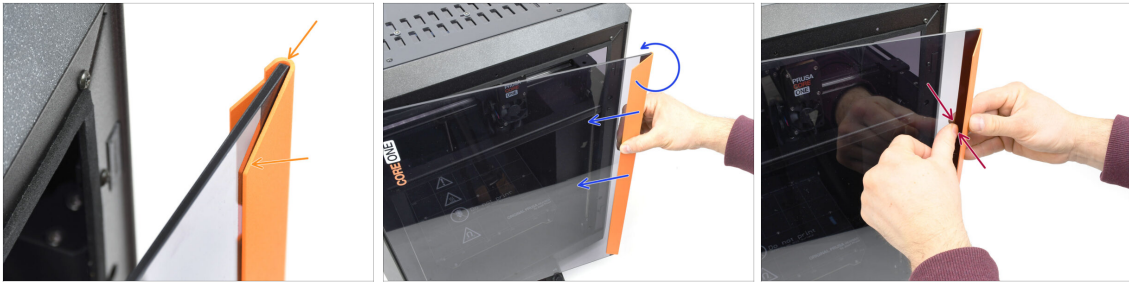
## SCHRITT 36 Assembling the door handle



- Kommen wir nun zum Griff. Entfernen Sie die Schutzfolie von beiden Klebestreifen auf der Innenseite.
- The part with the adhesive strip will go onto the back of the door. But do not attach the handle yet!

⚠ Wait for the upcoming step! We have to align the handle first!

## SCHRITT 37 Securing the door handle



- ✦ Richten Sie den Griff so aus, dass der vordere abgeschrägte Teil flach an der Tür anliegt.  
Die Oberseite des Griffs muss bündig mit der Tür abschließen.
- ✦ While pushing the handle against the door to keep it aligned, slowly rotate it counterclockwise until the adhesive strips bond to the door.
- ✦ Push the door and handle together firmly in the adhesive strip areas to ensure a secure attachment.

## SCHRITT 38 Anbringen des Aufklebers: Vorbereitung der Teile



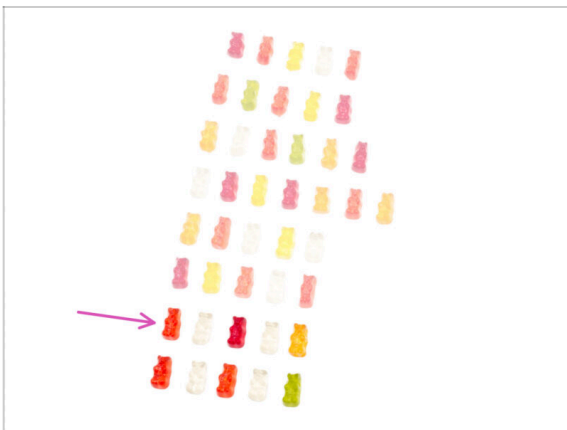
- ✦ Für den folgenden Schritt bereiten Sie bitte vor:
  - ✦ CORE One+ Acrylglasaukleber
- ⓘ Der CORE One+ Acrylglasaukleber befindet sich in der CORE One+ Upgrade-Box

## SCHRITT 39 Anbringen des Aufklebers



- Ziehen Sie den Aufkleber von der blauen Folie ab.
- Richten Sie den Aufkleber am **ONE** aus und üben Sie vorsichtig, aber fest Druck auf den Aufkleber aus.
- Ziehen Sie die transparente Folie vorsichtig ab und stellen Sie sicher, dass + nicht abgelöst wird.

## SCHRITT 40 Haribo Zeit!



- ⬛ Harte Arbeit verdient süße Ergebnisse!
- Eat the seventh row.
- ⚠ But don't eat the rest yet.

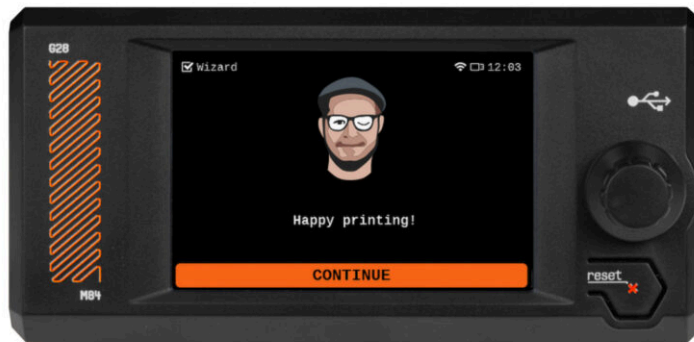


## SCHRITT 41 Abgeschlossen



- Herzlichen Glückwunsch! Sie haben Ihren Prusa CORE One+ erfolgreich zusammengebaut.
- Let's move to the final chapter.

## 9. Calibration & First run



## SCHRITT 1 Riemen Spannen



**i** This chapter will guide you through calibrating and preparing the printer for its first run.

■ Calibrate the belt tension. See the following article for more info:

■ [Adjusting belt tension \(CORE One\)](#)

**!** Don't forget to come back here after adjusting the belts.

## SCHRITT 2 Einbau des Spulenhalters: Vorbereitung der Teile



■ For the next step, prepare:

■ O-Ring

■ Spoolholder-static

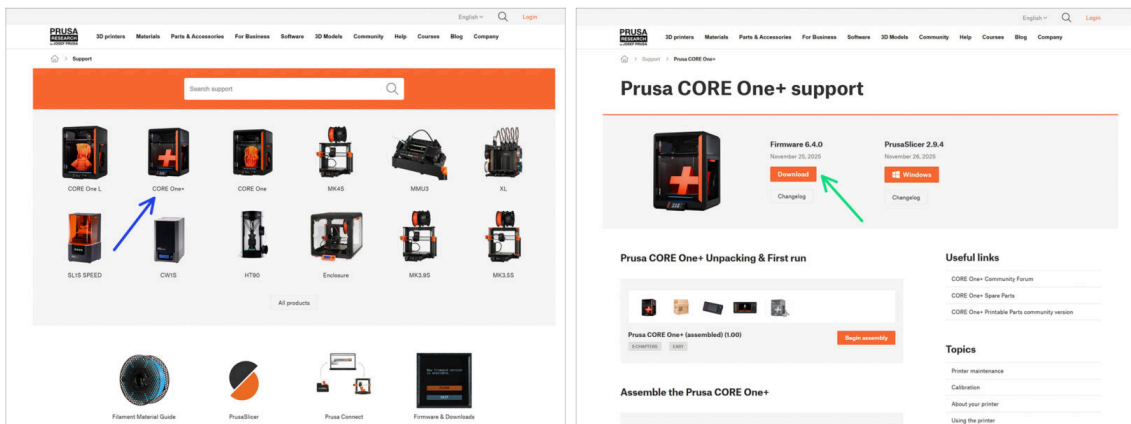
**i** Der Spulenhalter und der O-Ring befinden sich im gleichen Beutel.

## SCHRITT 3 Auflegen des Druckblechs und Spulenhalter anbringen



- ⚠ **Make sure there is nothing on the heatbed.** The heatbed must be clean. Any dirt can damage the surface of both the heatbed and the print sheet.
- 🟡 **Attach the sheet by first aligning the rear cutout with the locking pins on the back of the heated bed.** Hold the sheet by the front two corners and slowly lay it down onto the heated bed - **watch your fingers!**
  - ⬛ Keep the **print sheet** clean for optimum performance.
  - ⬛ #1 cause of prints detaching from the print surface is a greasy print sheet. **Use IPA (Isopropyl alcohol) to degrease it** if you have touched its surface before.
- 🟡 Put the O-ring onto the Spoolholder-static.
- 🟡 Schieben Sie den Spulenhalter auf das Dock und verriegeln Sie ihn, indem Sie ihn im Uhrzeigersinn drehen.

## SCHRITT 4 Firmware Update



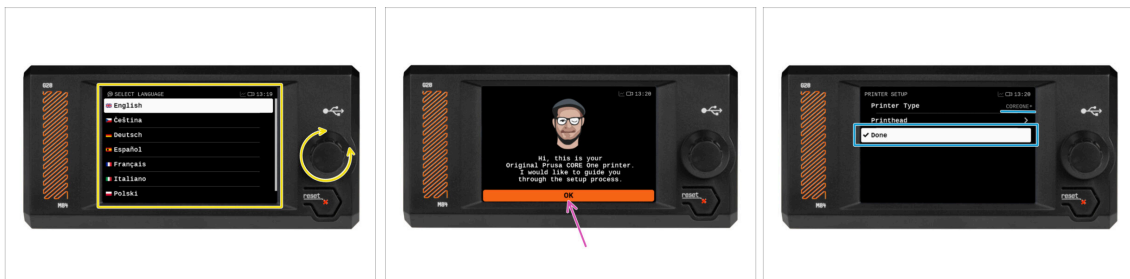
- 📄 **All printers come with a USB drive containing the latest firmware.** However, it is recommended to check and possibly upgrade the firmware version every few weeks.
- ⬛ Visit the **help.prusa3d.com** page.
- 🟡 Navigate to the Prusa CORE One+ page.
- 🟢 Download the latest firmware version.
- ⬛ Save the firmware file **(.bbf)** onto the **bundled USB drive**.

## SCHRITT 5 Einschalten des Druckers



- ✿ Insert the USB drive included in your kit into your printer.
  - ❗ The included USB drive contains the latest firmware file.
- ✿ Connect the power cable and plug the printer into a wall outlet.
- ✿ Turn the printer on using the switch on the back.
- ❗ The printer will now detect if a new firmware file is available on the USB drive.
- ✿ If the "New firmware available" screen appears, hit **FLASH** by pressing the rotary knob to upgrade to the latest firmware.
  - ✿ If no such message appears, the printer is running the latest firmware already. Proceed to the next step.

## SCHRITT 6 Setting up the printer: Intro



- ✿ The printer displays on the screen a prompt to select your language. Use the control knob or touchscreen to set your preference.
- ✿ After selecting your language, the printer will display the welcome screen. Hit **OK** to continue through the setup process.
- ✿ The next screen will prompt you to select your printer model COREONE+. Hit **Done** to continue.

## SCHRITT 7 Setting up the printer: Network setup



- ⬢ The Network Setup screen will ask you to connect to a Wi-Fi network using our official Prusa mobile app.
- ❶ Read more on [prusa.io/app](https://prusa.io/app).
- 🟢 If you select **No**, the printer will show alternative ways to connect to Wi-Fi. This step is optional and can be done later.
- ❶ You can skip this screen and set up the network connection later.

## SCHRITT 8 Assistant: Intro



- ❶ The printer will prompt you to run self-tests and calibrations for all important components. The entire process takes a few minutes, with some parts requiring direct user interaction.
- 🟡 Hit **YES** to begin the self-test and follow the instructions on screen.
- ⚠️ During the self-test, **keep the door closed** until you are prompted. Opening the door will interrupt the process.
- ⬢ There are **HOT** and moving parts inside during the self-test.
- 🟢 The printer will begin by testing all the fans. **Be aware—it can get quite noisy for a while!**



## SCHRITT 9 Wizard: Door Sensor Calibration



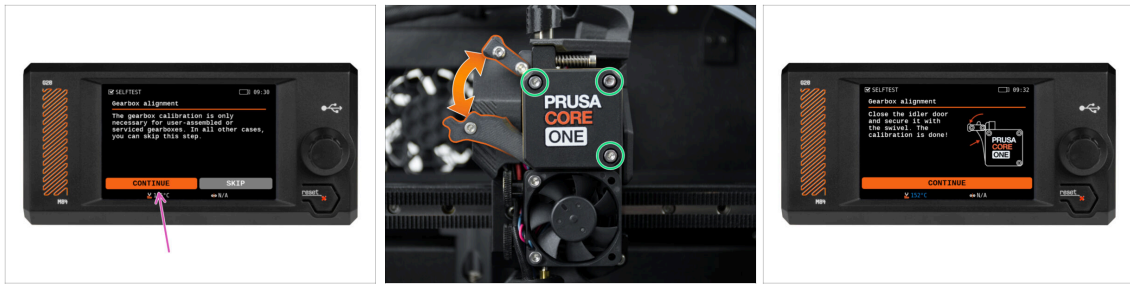
- ✿ The first part that requires your interaction is the door sensor calibration. To begin, hit **Calibrate** and follow the on-screen instructions.
- ✿ You'll be prompted to gradually tighten the sensor tension screw from its default loose position - usually in half-turn steps, possibly several times during calibration.
  - ✿ After each adjustment, observe the door sensor switch emerging from the front profile hole.
- ✿ Repeat the procedure until the door sensor is correctly adjusted - meaning it switches at a hand-gap distance. Then hit **Continue**.
- ❗ Once the sensor is properly calibrated, you should hear an audible click from the door sensor area when opening and closing the door.

## SCHRITT 10 Assistant: Wägezellentest



- ✿ The next step of the wizard will prompt you to touch the nozzle to test and calibrate the Loadcell. During this procedure, the **parts of the printer are not heated up** so that you can touch them. Hit **Continue**.
- ❗ Loadcell calibration requires the door to be open, as you must interact directly inside the printer.
  - ✿ Do not touch the nozzle yet, wait until prompted by the **Tap nozzle NOW** message.
  - ✿ Tap the nozzle from below. In case the Loadcell does not detect the touch, you will be prompted to repeat the step. Otherwise, you will see **Loadcell test passed OK** when it succeeds.
  - ✿ To allow the printer to continue with the Wizard, **close the door**.

## SCHRITT 11 Assistent: Getriebeausrichtung



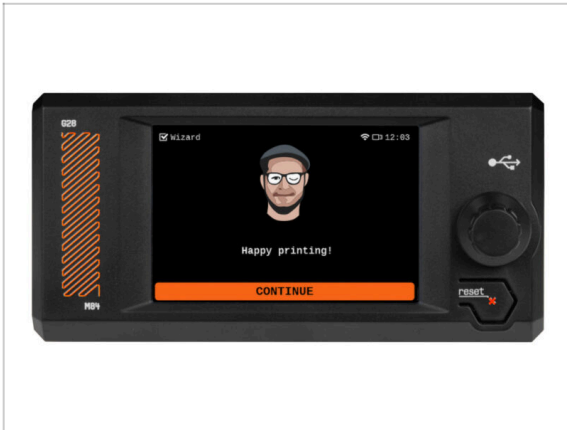
- ✦ Once you get to the Gearbox Alignment part, select **Continue** and follow the on-screen instructions.
- ✦ Make sure the idler lock (swivel) is unlocked from the idler door.
- ✦ Loosen the three screws on the front of the gearbox by 1.5 turns.
- ❗ The printer will go through the automatic gearbox alignment. This process can't be seen from the outside.
- ⬛ Once prompted, tighten the three screws in the pattern indicated on the screen.

## SCHRITT 12 Wizard: Filament Sensor Calibration



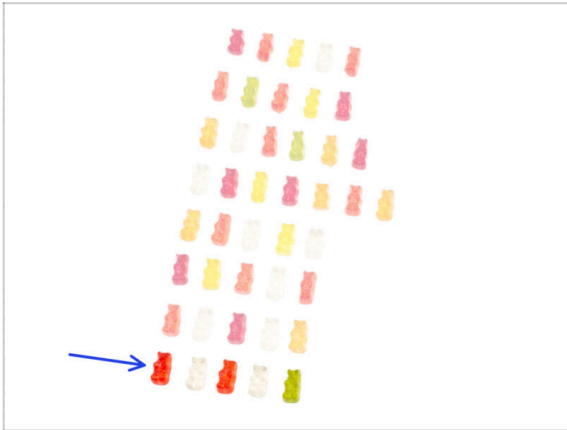
- ✦ Überprüfen Sie den manuellen Schalter am Filament-Sensor. **Stellen Sie sicher, dass er eingeschaltet ist.**
- ✦ During the filament sensor calibration, you will need to use a short piece of filament. Prepare the filament and select **Continue**.
- ❗ There should be no filament inside the extruder before the calibration process starts.
- ✦ Place a spool of filament onto the spool holder on the right side of the printer.
- ✦ When prompted, begin inserting the filament into the PTFE tube located beneath the right handle.
- ⬛ Remove the filament after the calibration finishes.

## SCHRITT 13 Assistent abgeschlossen



- Congratulations! The Wizard is complete. Now it's time to test some prints.

## SCHRITT 14 Haribo Zeit!



- Victory tastes like gummy bears!
- Enjoy the rest. You've earned this.

## SCHRITT 15 Handbuch



- Read the **3D Printing Handbook** dedicated to your printer and follow the instructions to set up the printer and prepare it for your first print.

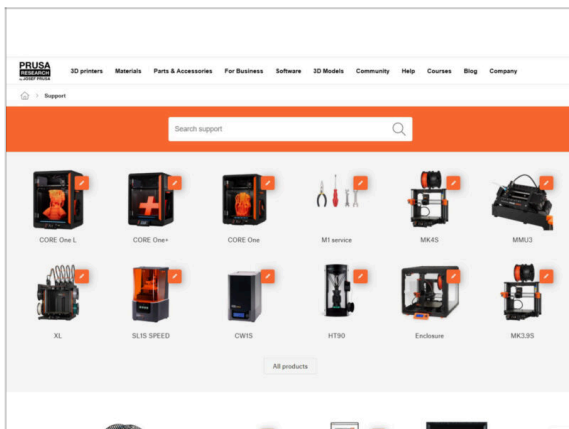


The latest version is always available at [help.prusa3d.com](https://help.prusa3d.com).



Read the **Disclaimer and Safety instructions** chapters.

## SCHRITT 16 Prusa-Wissensbasis

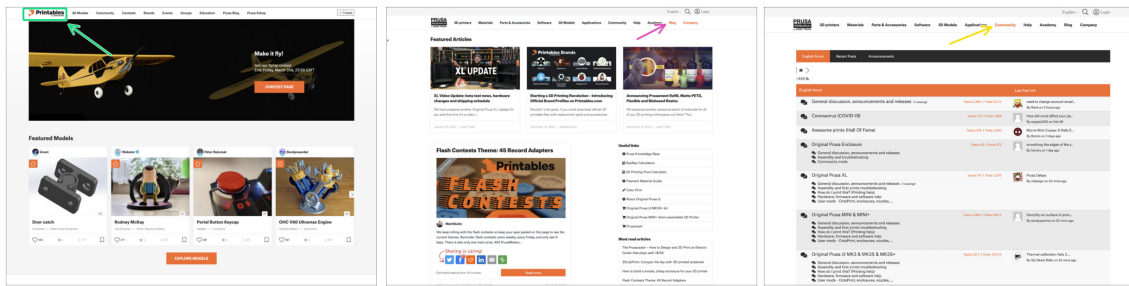


If you encounter any problems at all, don't forget you can always check out our knowledge base at [help.prusa3d.com](https://help.prusa3d.com)



We're adding new topics every day!

## SCHRITT 17 Kommen Sie zu Printables!



- ➡ Don't forget to join the biggest Prusa community! Download the latest models in STL or G-code tailored for your printer. Register at [Printables.com](https://www.printables.com)
- ➡ Looking for inspiration on new projects? Check our blog for weekly updates.
- ➡ If you need help with the build, check out our forum with a great community :-)
- i All Prusa services share one user account.

# Änderungsprotokoll der Anleitung





## SCHRITT 1 Versionsgeschichte



### Versionen der Prusa CORE One+ Kit Montageanleitung:

- 11/2025 - Erste Version 1.00

## This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across its entire width, providing a guide for handwriting or typing. The background is a clean, solid white color. There are no margins, text, or other markings present on the page.



## This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across the entire width of the page, providing a guide for handwriting or typing. The background is a clean, off-white color.



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