

Table of Contents

1. Introduction	3
Step 1 - Introduction	4
Step 2 - General information	4
Step 3 - How to navigate through the manual	5
Step 4 - What awaits you during the unpacking	6
Step 5 - Tools in the package	7
Step 6 - Labels guide	7
Step 7 - Cheatsheet	8
Step 8 - CAUTION: Lubricant Handling	8
Step 9 - View high resolution images	9
Step 10 - We are here for you!	9
2. Printer unboxing	10
Step 1 - Introduction	11
Step 2 - Opening the package	11
Step 3 - Opening the package	12
Step 4 - Removing the inserts	12
Step 5 - Removing the inserts	13
Step 6 - Removing the inserts	13
Step 7 - Unpacking the printer	14
Step 8 - Haribo time	14
Step 9 - Printer is ready for setup	15
3. Printer set up	16
Step 1 - Tools necessary for this chapter	17
Step 2 - Preparing the printer	18
Step 3 - Nextruder cable: parts preparation	18
Step 4 - Guiding the nextruder cable	19
Step 5 - Inserting the first nextruder dock	19
Step 6 - Attaching the first and second nextruder dock	20
Step 7 - Dock inspection	20
Step 8 - Dock inspection: video	20
Step 9 - Third dock: removing the screw	21
Step 10 - Reward yourself	21
Step 11 - Wi-Fi antenna holder: parts preparation	22
Step 12 - Installing the Wi-Fi antenna: antenna preparing	22
Step 13 - Installing the Wi-Fi antenna: antenna preparing	23
Step 14 - Uncovering the electronics	23
Step 15 - Connecting the DWARF cables (1-2)	24
Step 16 - Installing the Wi-Fi antenna holder	24
Step 17 - Connecting the DWARF cables (3-5)	25
Step 18 - Covering the electronics box	25
Step 19 - Guiding the PTFE tubes (1-3)	26
Step 20 - Guiding the PTFE tubes (4-5)	26
Step 21 - Wi-Fi antenna: parts preparation	27
Step 22 - Installing the Wi-Fi antenna	27
Step 23 - Universal spool holder: parts preparation	28
Step 24 - Adjusting the spool holder nut	28
Step 25 - Mounting the Puck-universal	29
Step 26 - Installing the spoolholder (left side)	29
Step 27 - Installing the spoolholder (right side)	30
Step 28 - Nextruder assembly: parts preparation	30

Step 29 - Docking the Nextruder	31
Step 30 - Nextruder cable bundle assembly	31
Step 31 - Two screws version: Nextruder cable bundle assembly	32
Step 32 - xLCD assembly: parts preparation	32
Step 33 - Connecting the xLCD cables	33
Step 34 - Mounting the xLCD	33
Step 35 - Reward yourself	34
Step 36 - Almost done!	34
4. First run	35
Step 1 - Before you start with Multi-Tool	36
Step 2 - Nozzle seal height calibration	36
Step 3 - Nozzle seal height calibration	37
Step 4 - Preparing the printer	37
Step 5 - Firmware update	38
Step 6 - Wizard: Network and Prusa Connect setup	38
Step 7 - Wizard: Calibration tests	39
Step 8 - Wizard: Dock Position Calibration	40
Step 9 - Wizard: Remove the dock pins	40
Step 10 - Wizard: Loosen screws	41
Step 11 - Wizard: Lock the tool	41
Step 12 - Wizard: Tighten the upper screw	42
Step 13 - Wizard: Tighten the lower screw	42
Step 14 - Wizard: Install the dock pins	43
Step 15 - Wizard: Dock successfully calibrated	43
Step 16 - Wizard: Loadcell test	44
Step 17 - Wizard: Calibrate Filament Sensors	44
Step 18 - Wizard: Calibrate Filament Sensors	45
Step 19 - Wizard: Phase stepping	46
Step 20 - It's done	46
Step 21 - Prusa nextruder sock (Optional)	47
Step 22 - Regular printer maintenance	47
Step 23 - Quick guide for your first prints	48
Step 24 - Printable 3D models	48
Step 25 - Give us feedback	49
Step 26 - Prusa knowledge base	49
Step 27 - Join Printables!	50
Step 28 - Haribo time!	50
Manual changelog	51
Step 1 - Version history	52

1. Introduction



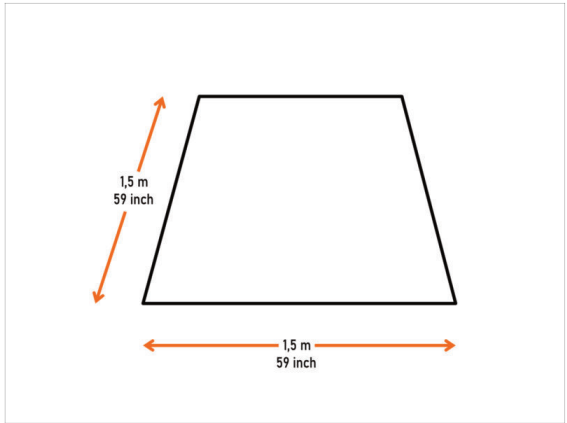
STEP 1 Introduction



● This guide applies to both the **Prusa XL+ Dual-Head** and **Prusa XL+ Five-Head** printers.

ⓘ Unless stated otherwise, all instructions and illustrations show the Prusa XL+ Five-Head configuration. Any differences for the Dual-Head version are highlighted where applicable.

STEP 2 General information

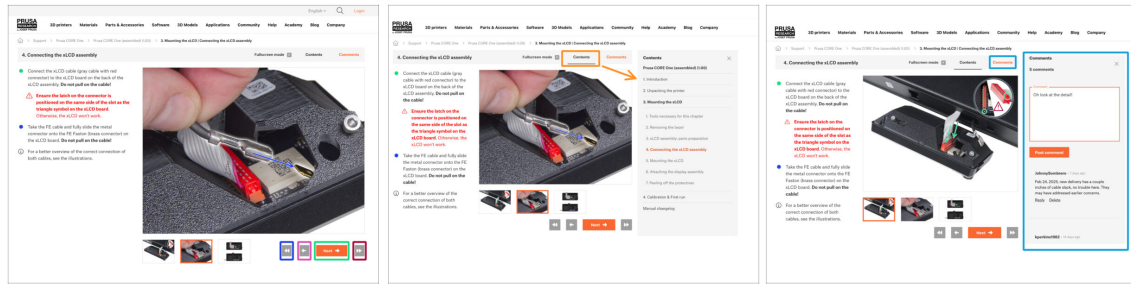


⚠ **The package with the printer is heavy!** Always ask another person for help with handling.

● **For the assembly, prepare a clean workbench with a space of at least 1,5 m x 1,5 m (59 in x 59 in).**

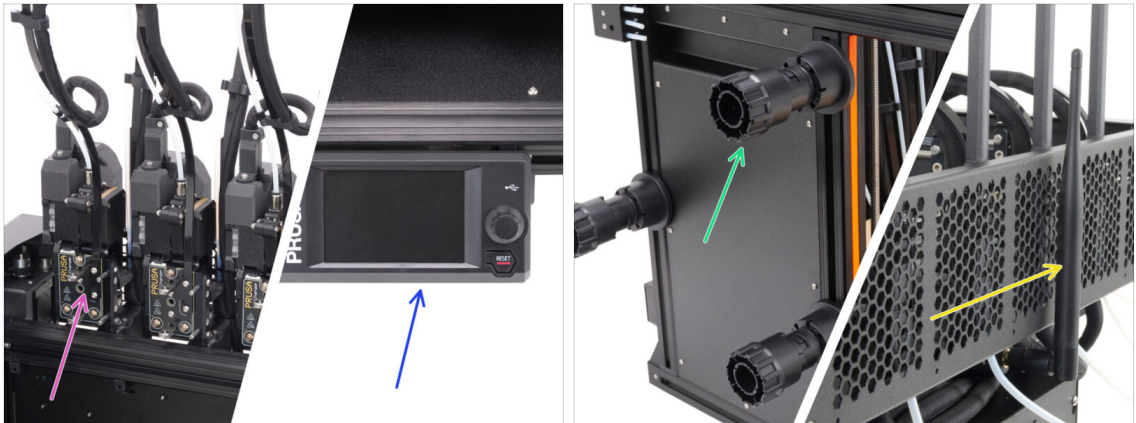
● We recommend a bright light above your workbench. Some parts of the printer are dark, and inadequate light could make the assembly more difficult.

STEP 3 How to navigate through the manual



- Use the graphical navigation buttons in the bottom right corner or the arrow keys on your keyboard:
 - **Next button / Right arrow key** - Moves to the next image, or to the next step if it's the last image in the 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.
 - **Play backward button / Up arrow key** - Moves to the previous 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.

STEP 4 What awaits you during the unpacking



❗ Because of transportation, some of the fragile parts must be safely packed separately in the printer package. This manual will take you through the installation of these parts on the printer.

⚠ **Do not discard the packaging!** Please keep the original packaging and protective foam. The printer must be packed in these for any service or warranty shipping to prevent damage.

● **These parts will be installed:**

- Multi-Tool nextruder assembly
- xLCD assembly
- Spool holder
- Wi-Fi antenna

STEP 5 Tools in the package



● The package includes:

- ① Some of the tools are intended primarily for regular printer maintenance. You might not need them for this manual. A list of the necessary tools is included at the beginning of each assembly chapter.
- Torx key TX6, TX8, TX10
- Allen key 2.5 mm, 4.0 mm
- Wrench 13-16
- Universal wrench
- T10 screwdriver
- Philips PH2 screwdriver
- Needle-nose pliers
- The printer's package contains a lubricant, which is intended for maintenance. No need to apply it during the assembly.

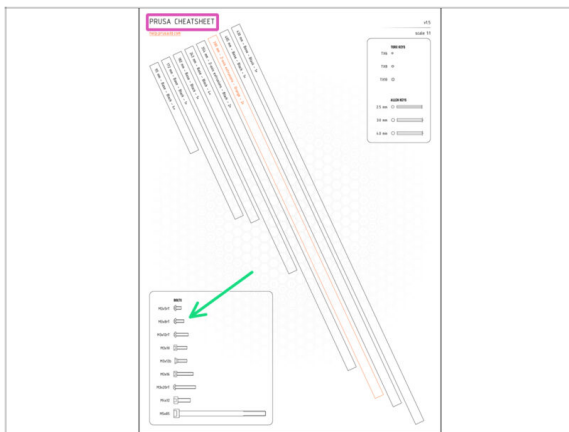
For tips on how to apply the lubricant, see our Regular printer maintenance guide.

STEP 6 Labels guide



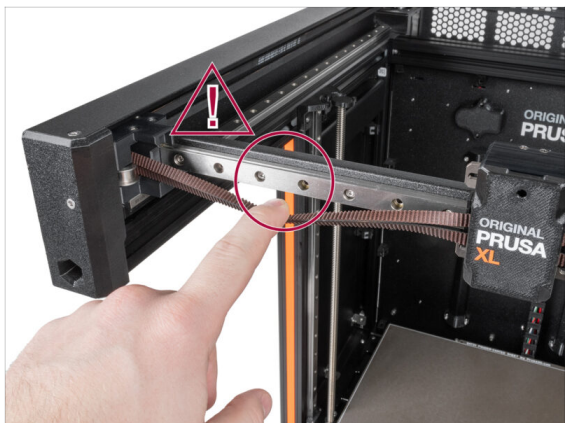
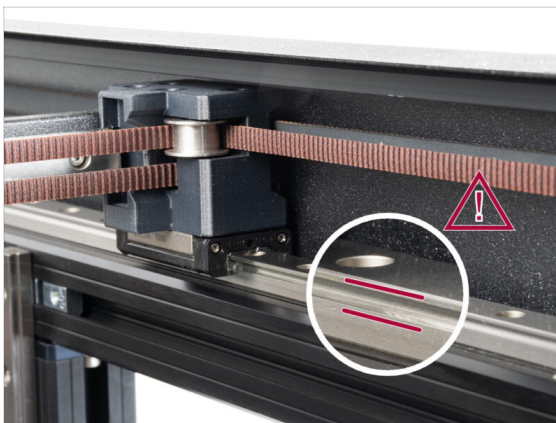
- ① All the boxes and bags that include parts needed for the build are labeled.
- The LCD Fasteners bag includes an extra spare of each part contained in the bag. The amount of spare parts is written on the label. This number is included in the total number of each type of part.

STEP 7 Cheatsheet



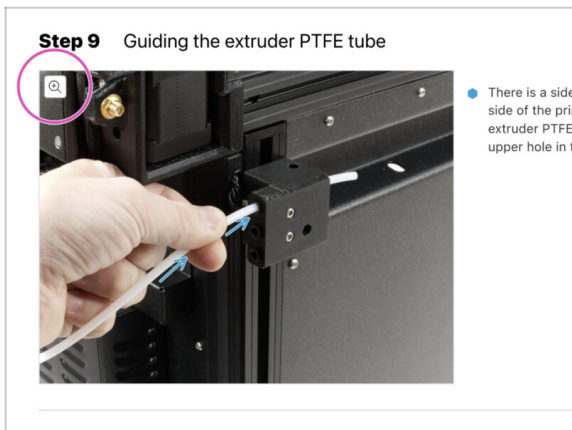
- ◆ Your package contains a letter, on the back of which is a Cheatsheet with drawings of all the necessary fasteners.
- ◆ The fasteners drawings are 1:1 scale, so you can compare the size by placing the fastener on the paper to make sure you are using the correct type.
- ❗ You can download it from our site prusa.io/cheatsheet-xl. Print it at 100 %. Do not rescale it, otherwise it will not work.

STEP 8 CAUTION: Lubricant Handling



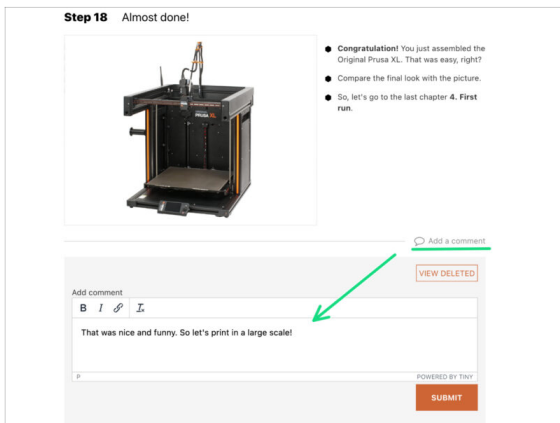
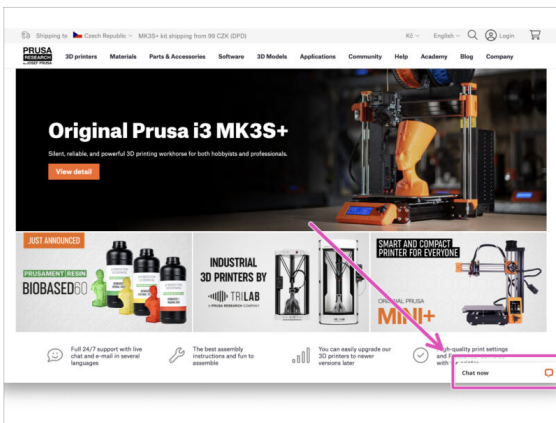
- ⚠ **CAUTION: Avoid direct skin contact with the lubricant used for the linear rails in this printer. If a contact occurs, wash your hands immediately. Especially before eating, drinking, or touching your face.**
- ◆ Lubricant accumulates in the printer's bearings, mainly in the linear rail channels.

STEP 9 View high resolution images



- i When you browse the guide on help.prusa3d.com, you can view the original images in high resolution for clarity.
- ◆ Hover your cursor over the image and click the Magnifier button ("View original") in the top left corner.

STEP 10 We are here for you!



- Lost in the instructions? Missing screw or cracked printed part? **Let us know!**
- You can contact us using following channels:
 - ◆ Comments under each step.
 - ◆ Our 24/7 live chat at shop.prusa3d.com
 - Writing an email to info@prusa3d.com
- Are you ready to get started on the assembly? Let's move on to chapter **2. Printer unboxing**.

2. Printer unboxing

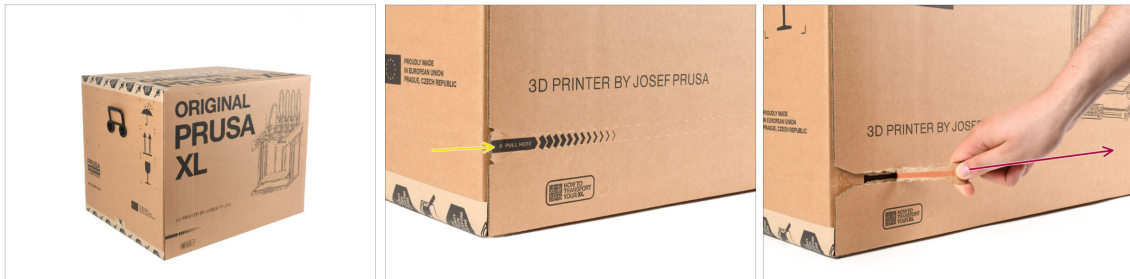


STEP 1 Introduction



- ⚠ **The printer package is heavy!** Ask someone to help you out.
- ⚠ **If any children are helping you with the assembly, always supervise them to avoid injury.**
- ⚠ **Do not discard the packaging!** Please keep the original packaging and protective foam. The printer must be packed in these for any service or warranty shipping to prevent damage.

STEP 2 Opening the package



- Place the package on a stable surface. **Make sure that the package is oriented top side up.** Note the arrows on the box.
- The package is equipped with a tear strip that splits the box in two parts.
- Peel off the entire tear strip to split the box.

STEP 3 Opening the package



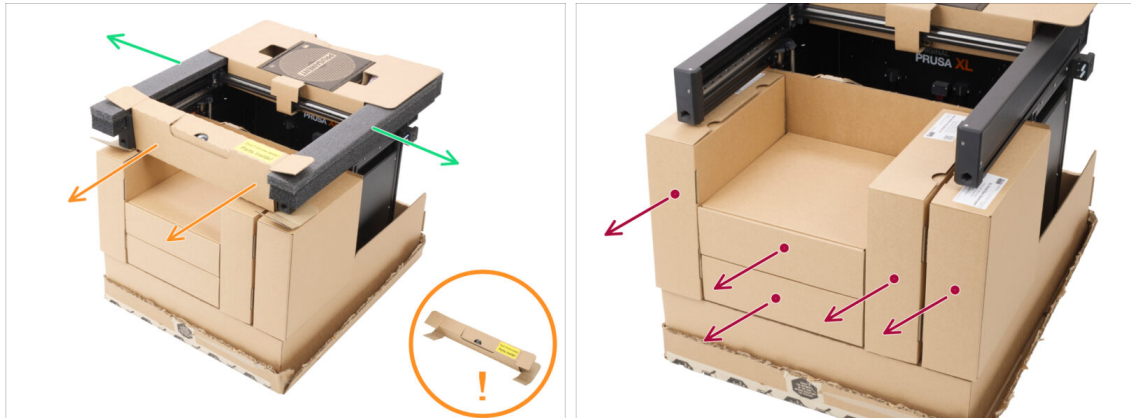
- Remove the top part of the box by lifting it up.

⚠ Inside, there are cardboard inserts that contain parts necessary for the assembly. Do not throw them out!

i Your printer may differ slightly from the one shown in the photos. This does not affect the guide; the photos are for illustrative purposes only.

- Remove the Haribo gummy bears from the back of the box and put them aside. We will release them from captivity soon.
- Remove the welcome letter, which also contains the cheatsheet. **Do not dispose of the welcome letter!**

STEP 4 Removing the inserts



- Remove the top foam fixations.

- Remove the top front cardboard insert.

⚠ There are various parts inside, be careful not to lose these as you remove the cardboard insert.

- Remove all the boxes containing nextruder parts.

i The number of boxes depends on your printer configuration.

STEP 5 Removing the inserts



- Lift the two flaps on the side of the front cardboard insert, bend the vertical side down, and remove the insert.
- Remove the box with Prusament on top.

STEP 6 Removing the inserts



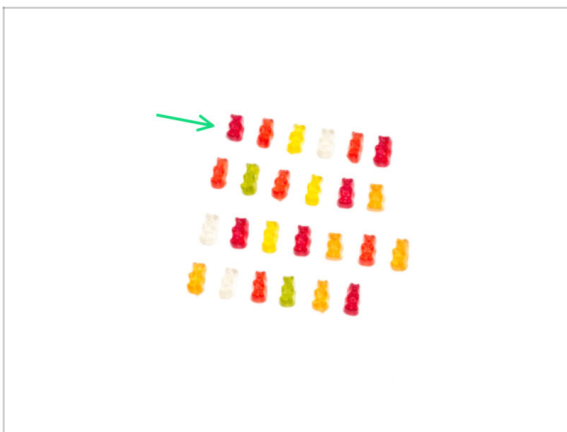
- There is a small cut-out in the top cardboard insert that locks it to the printer's frame. Pull it to unhook the insert.
- Unhook the protective cardboard strip that is wrapped around the X-axis.
- Printer parts are stored inside the top cardboard insert! Make sure not to lose them!
- Lift the whole insert and remove it.

STEP 7 Unpacking the printer



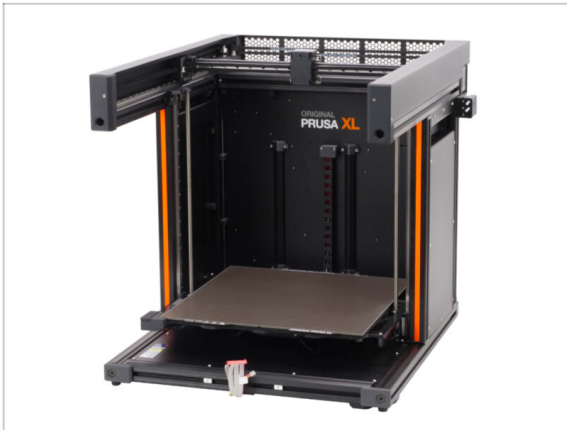
- Use the side handles on the printer to lift it up.
- Keep the bottom of the box in place by holding it down while you lift the printer up.
- Do not lift the printer by the top metal profiles!!!** Otherwise, you may warp the printer parts and damage the LED lighting inside.
- Do not lift the printer alone;** ask someone to help you lift the printer by the handle on the side of the printer.

STEP 8 Haribo time



- Carefully and quietly open the bag with the Haribo gummy bears. A high level of noise might attract nearby predators!**
- Take out some of the gummy bears and place them on a clean surface. Separate the sleuth into four rows as shown in the photo. Seal the bag and set it aside for now.
- Eat the first row: six gummy bears.
- Did you know that** gummy bears were first created by a German candy maker named Hans Riegel in the 1920s.

STEP 9 Printer is ready for setup

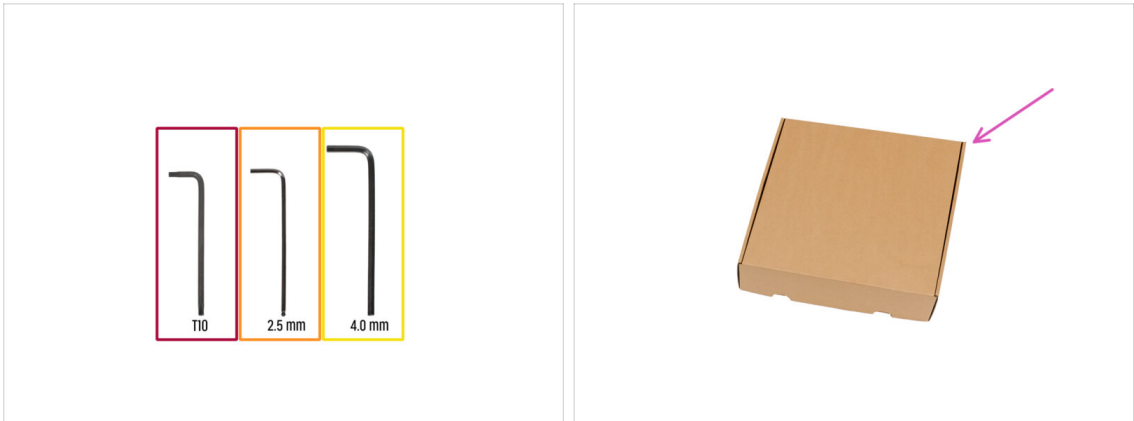


- ◆ Good job! The printer is ready for the next chapter.
- ◆ Visit chapter **3. Printer set up.**

3. Printer set up



STEP 1 Tools necessary for this chapter



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

- T10 Torx key

ⓘ You can also use a T10 screwdriver, which is included in the package

- 2.5 mm Allen key

- 4.0 mm Allen key

- Use a cardboard box as a heatbed protection during the setup. Use one of the Nexttruder boxes that you received with your printer.

STEP 2 Preparing the printer



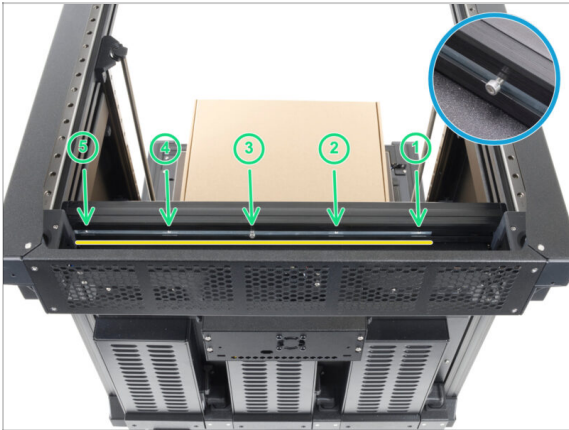
- **Reminder:** To handle the printer, **always grab the handles on both sides of the printer**. Do not lift the printer by the aluminum extrusions or the metal sheet profiles on top.
- Place the empty cardboard box approximately to the front center part of the heatbed.
- ① In the following steps, we will work with tools and install the extruder above the heatbed. Protect the print surface against any possible damage. An empty Nextruder box can serve this purpose.
- Manually move the X-axis assembly all the way to the front of the printer.
- Manually move the X-carriage approximately to the center of the X-axis.

STEP 3 Nextruder cable: parts preparation



- **For the Nextruder cable bundle assembly please prepare:**
 - Cable bundle (2x / 5x)
 - ① The number varies depending on your printer configuration.

STEP 4 Guiding the nextruder cable



- Carefully rotate the printer 180° so that the PSU (Power Supply Unit) side is facing you.
- Locate the long metal profile with five M3 holes inside the rear aluminum extrusion.
- We will use all M3 holes in the metal profile (tch-mounting-insert).
 - ❗ For the Dual-head version, use only the first two positions.
- Locate a screw in the long metal profile which is fixing the part during transport. **Keep the screw in the metal profile for now.**
- ⚠ **Maintain the position of the long metal profile for the next step. It must not move!**
If the metal profile moves, then push it all the way to the left and fix it in position with the screw.

STEP 5 Inserting the first nextruder dock



- Insert the dock assembly behind the rear metal sheet. Route the cable and the PTFE tube downward **behind the metal sheet.**



The same procedure applies to all remaining docks. First, focus on installing the first dock in the following steps.

STEP 6 Attaching the first and second nextruder dock



- Place the XL-dock-cable-router on the bottom metal sheet at position 1 in the metal profile.
- Note the tab next to the protruding screw. Once aligned, the **tab must fit into the groove** in the frame extrusion.
- Attach the screw to the **first M3 hole** in the long metal profile. Check through the hole in the rear if the cable holder is lined up with the hole.
- Push the 2.5 mm Allen key all the way through the hole in the rear metal sheet until you reach the **middle** screw in the xl-dock-cable-router and tighten the screw.
- **Tighten the screw firmly.** The dock is designed to be held in place by a press fit.
- 🔧 Repeat the same procedure for the second tool head.

STEP 7 Dock inspection

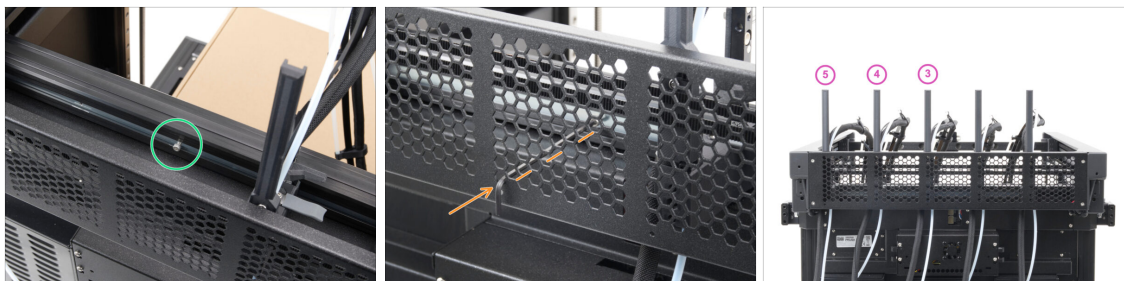


- ❗ This step is the same for all versions of the dock assembly.
- ⚠️ Check that the dock is properly tightened. **The dock must not move.**
- ⚠️ The dock is a press fit, the screw must be tightened firmly.

STEP 8 Dock inspection: video

- ❗ This step is the same for all versions of the dock assembly.
- The following instructions need to be done correctly and carefully. Achieve better understanding and successful assembly by watching the video alongside the guide.

STEP 9 Third dock: removing the screw



This step applies only to the Five-Head version. Skip this step if you have the Dual-Head version.



This step is identical for all dock assembly versions. By now, you should have two docks installed.



Locate the M3 screw in the metal insert.



Using a 2.5mm Allen key, remove the screw from the metal insert.

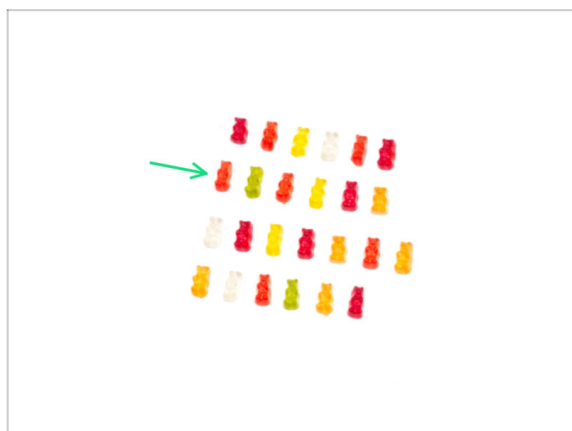


Attach all remaining docks using the same procedure as the first two docks.



Tighten the screw firmly. The dock is designed to be held in place by a press fit.

STEP 10 Reward yourself



Well done! You deserve a reward before we get to install other components.

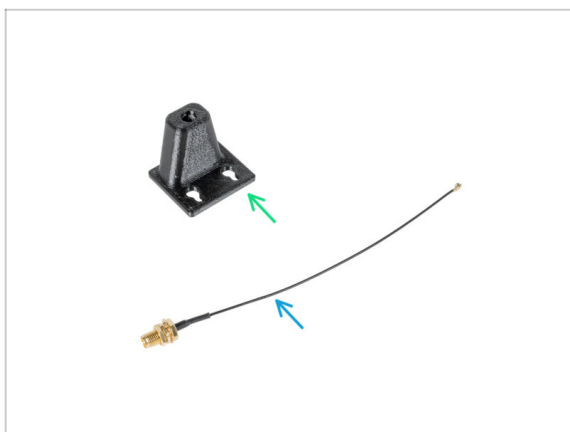


Eat the second row: six gummy bears.



Did you know that some gummy bear manufacturers offer sugar-free versions of the candy? These are sweetened with artificial sweeteners like maltitol or stevia.

STEP 11 Wi-Fi antenna holder: parts preparation

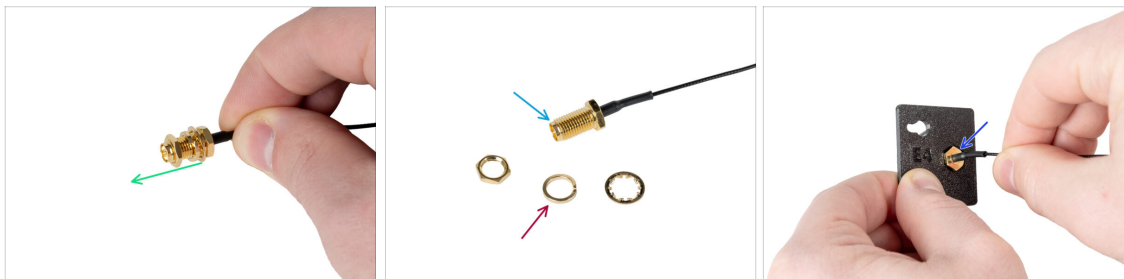


● For the following steps, please prepare:

● Wi-Fi-antenna-holder (1x)

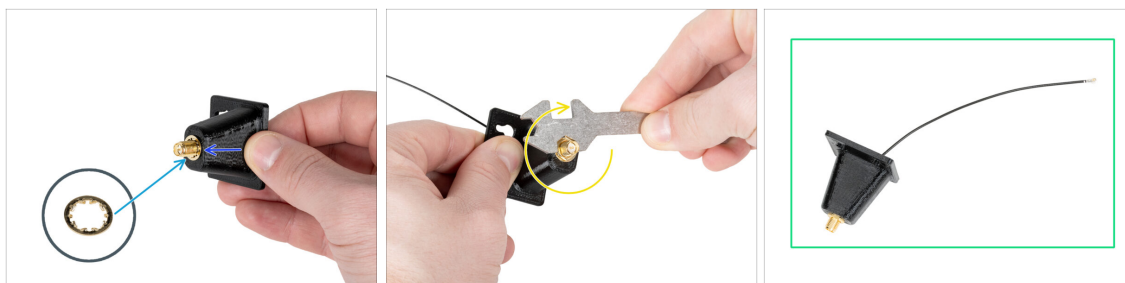
● Antenna cable (1x)

STEP 12 Installing the Wi-Fi antenna: antenna preparing



- Remove the nut with the washers from the antenna connector.
- The antenna connector is prepared.
- The latest version of the connector has a thicker washer. We do not need it anymore. You can throw it away.
- Insert the antenna connector into the same-shaped hole in the Wi-Fi-antenna-holder .

STEP 13 Installing the Wi-Fi antenna: antenna preparing



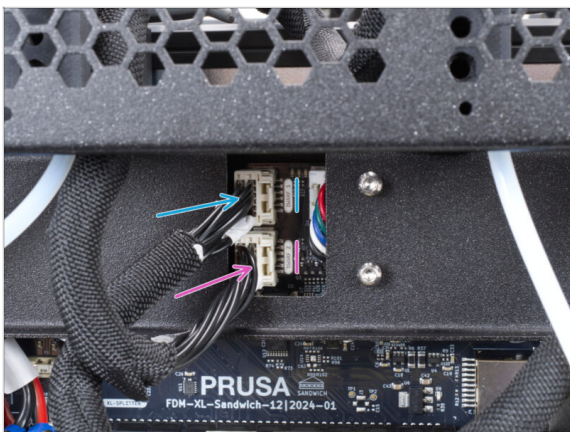
- Push the antenna connector through the Wi-Fi-antenna-holder.
- Insert the thinner lock washer back onto the connector.
- Using the universal wrench, tighten the nut on an antenna connector.
- Good job! The Wi-Fi antenna is prepared.

STEP 14 Uncovering the electronics



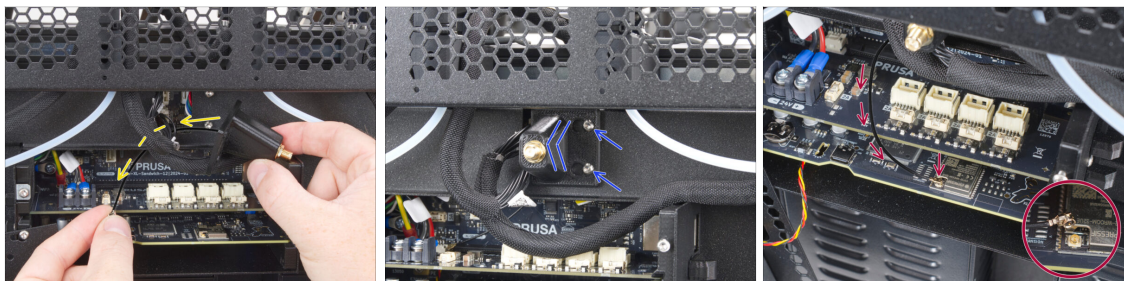
- Loosen all four screws securing the electronics cover. Two to three turns are enough.
- Slide the electronics cover upward slightly, then remove it from the electronics box.
- Be careful with the fan cable** when removing the cover. Temporarily hang the cover on the loosened lower-left screw of the electronics cover.

STEP 15 Connecting the DWARF cables (1-2)



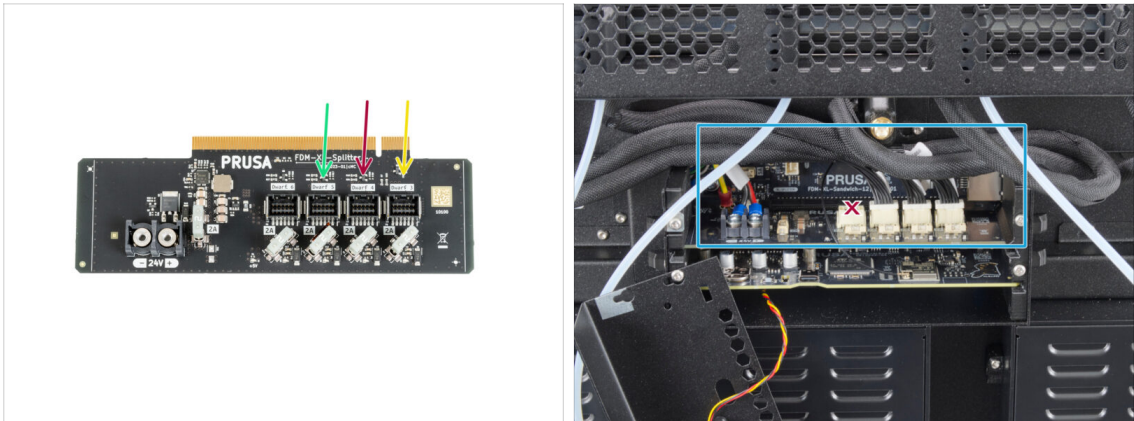
- Locate the rectangular opening in the metal sheet above the electronics area, providing access to the DWARF connectors.
- Connect the **first dock** (from the right side) cable to the **upper slot** labeled DWARF 1.
- Connect the **second dock** (from the right side) cable to the **lower slot** labeled DWARF 2.

STEP 16 Installing the Wi-Fi antenna holder



- ① **Dual-Head info:** The upper board shown in the photo is the XL-splitter board, which is present only in the Five-Head version. This difference does not affect the assembly procedure.
- Push the antenna cable through the opening in the cable cover (metal sheet) and guide it **behind the cover** to the electronics box.
- Attach the antenna-holder on the screws, slide the cover to the left, and tighten the screws.
- Gently, but firmly, connect the antenna cable with the antenna connector on the XL buddy board.
- ① Support the board from underneath with your finger while connecting the antenna cable. This prevents damage to the board.

STEP 17 Connecting the DWARF cables (3-5)



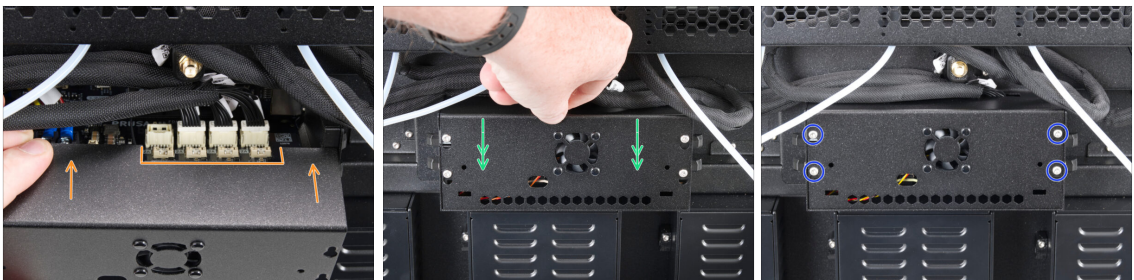
This step applies only to the Five-Head version. If you have the Dual-Head version, skip this step.



Do not remove the XL-splitter board from the printer. The splitter board is shown outside the printer in the photo only for illustration purposes, to show where to connect the DWARF cables.

- Connect the third, fourth, and fifth DWARF cables from the right to the splitter:
 - Third dock -> DWARF 3
 - Fourth dock -> DWARF 4
 - Fifth dock -> DWARF 5
- The XL-splitter with connected Nextruder cables should look like this.

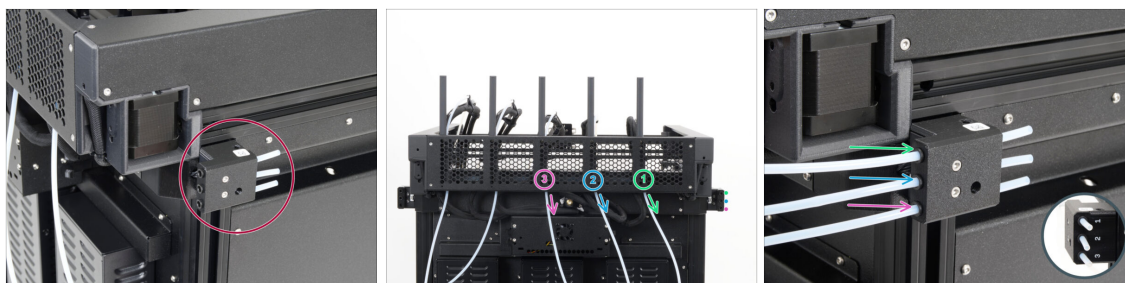
STEP 18 Covering the electronics box



Be carefull, do not pinch any cables!

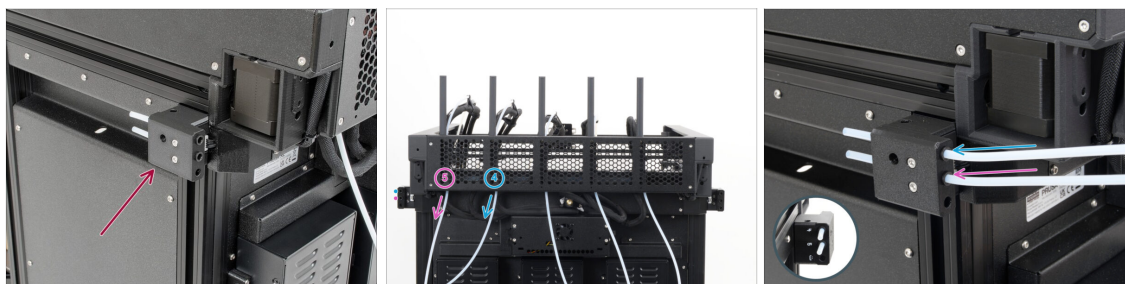
- Slide the electronics cover onto the electronics box.
 - Make sure the DWRAF cables 3-5 are routed through the cutout in the cover.
- Push the electronics cover down into position.
- With a T10 key tighten the four screws.

STEP 19 Guiding the PTFE tubes (1-3)



- 📍 Locate the side filament sensor on the left side of the printer.
- 🔧 In this step, connect the PTFE tubes from the individual docks to the corresponding openings in the filament sensor. **Follow the correct order:**
 - 📌 **i** The positions on the front side of the filament sensor are numbered.
 - 🟢 Insert the **first dock** PTFE tube all the way into the **upper hole** in the part.
 - 🟡 Insert the **second dock** PTFE tube all the way into the **middle hole** in the filament sensor.
 - 🟣 **Five-Head only:** Insert the **third dock** PTFE tube all the way into the **lower hole** in the filament sensor.

STEP 20 Guiding the PTFE tubes (4-5)



- 📌 **This step applies only to the Five-Head version.** If you have the Dual-Head version, skip this step.
- 📍 Locate the left filament sensor.
- 🔧 In this step, connect the PTFE tubes from the individual docks to the corresponding openings in the filament sensor. **Follow the correct order:**
 - 📌 **i** The positions on the front side of the filament sensor are numbered.
 - 🟡 Insert the **fourth dock** PTFE tube all the way into the **upper hole** in the part.
 - 🟣 Insert the **fifth dock** PTFE tube all the way into the **middle hole** in the part.
 - 🔧 **The lower opening remains unused.**

STEP 21 Wi-Fi antenna: parts preparation



● For the following steps, please prepare:

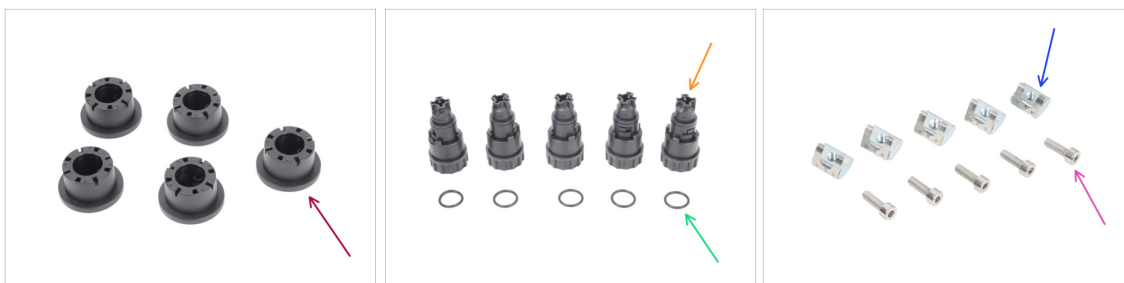
- Wi-Fi antenna (1x)

STEP 22 Installing the Wi-Fi antenna



- Screw the Wi-Fi antenna on the antenna connector. The antenna can be rotated around and bent in two directions.
- We recommend pointing the antenna straight upwards.
- Well done, the Wi-Fi antenna is installed, let's move on to the spool holders.

STEP 23 Universal spool holder: parts preparation



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

ⓘ The quantity of each item depends on your printer configuration.

- ⬛ Puck-universal (2x / 5x)
- ⬢ XL+-universal-spoolholder-adapter (2x / 5x)
- ⬢ Spoolholder-static (2x / 5x)
- ⬢ O-ring (2x / 5x)
- ⬢ M4nEs nut (2x / 5x)
- ⬢ M4x12 screw (2x / 5x)

STEP 24 Adjusting the spool holder nut



- ⬛ Carefully turn the printer so that the left side is facing you.
- ⬢ Insert the first M4nEs nut into the front support extrusion (with the orange plastic cover).
- ⬛ Insert the side with the spring (metal plate) first, then push the nut inside.
- ⬢ Insert the second and the third (Five-Head only) M4nEs nut into the extrusions as described in the picture.
- ⬢ The M4nEs nuts can move freely. Adjust their position as needed and push them slightly inward to move them smoothly. Refer to the image for the recommended placement.

STEP 25 Mounting the Puck-universal



- Insert the M4x12 screw into the Puck-universal.
- Align the Puck-universal with the nut in the extrusion.
- ⚠ **Note the tabs** on the part. They must **fit into the groove in the aluminum extrusion**.
- Tighten the screw firmly using a 3.0 mm Allen key.
- ⓘ Once tightened, the **position can no longer be adjusted**.
- Repeat this step for the remaining Puck-universal parts on the left side of the printer.

STEP 26 Installing the spoolholder (left side)



- Put the O-ring onto the Spoolholder-static.
- Push the Spoolholder-static into the Puck-universal dock.
- Lock the Spoolholder-static in by turning it clockwise.
- **Repeat the same procedure for the remaining spoolholders** on the left side of the printer.

STEP 27 Installing the spoolholder (right side)

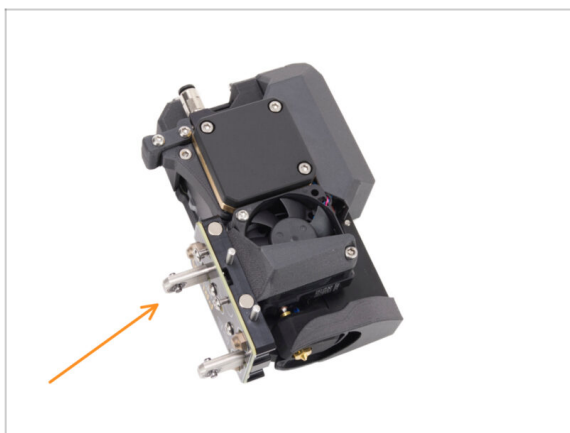


This step applies only to the Five-Head version. If you have the Dual-Head version, skip this step.

- Insert two M4nEs nuts into the right side of the printer and adjust their positions approximately according to the image.
- Install two Puck-universal units following the procedure from the previous step.
- Install the remaining Spoolholder-static units into the Puck-universal units.

⚠ Don't forget to install the O-ring.

STEP 28 Nextruder assembly: parts preparation



● For the next steps, please prepare:



The number varies depending on your printer configuration.

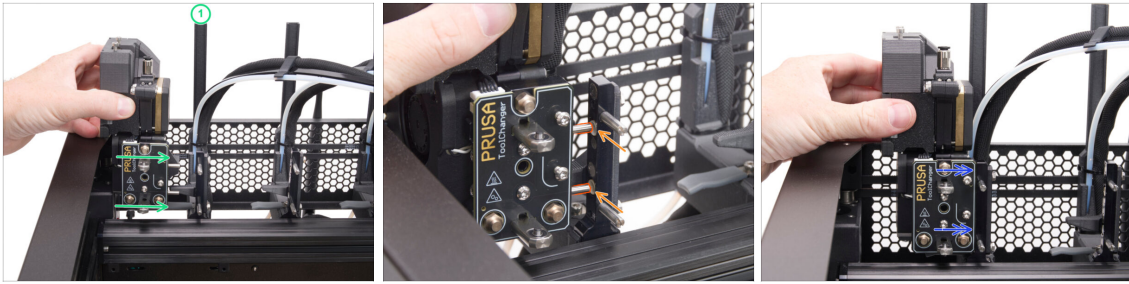


Nextruder unit (2x / 5x)



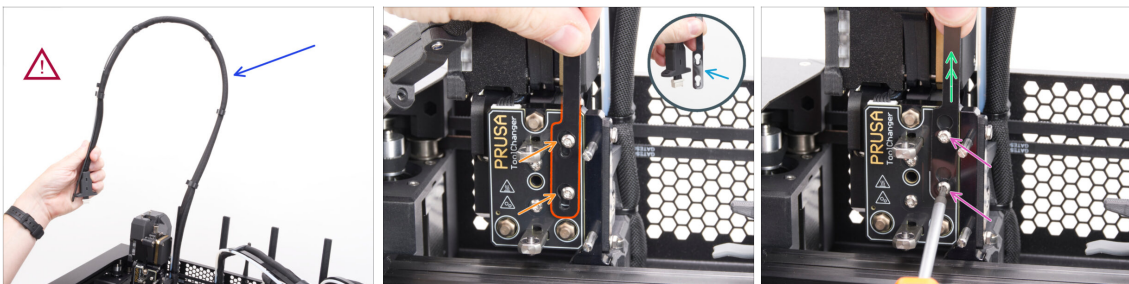
We recommend keeping all Nextruder units in their original boxes until needed. Take them out one by one during assembly.

STEP 29 Docking the Nextruder



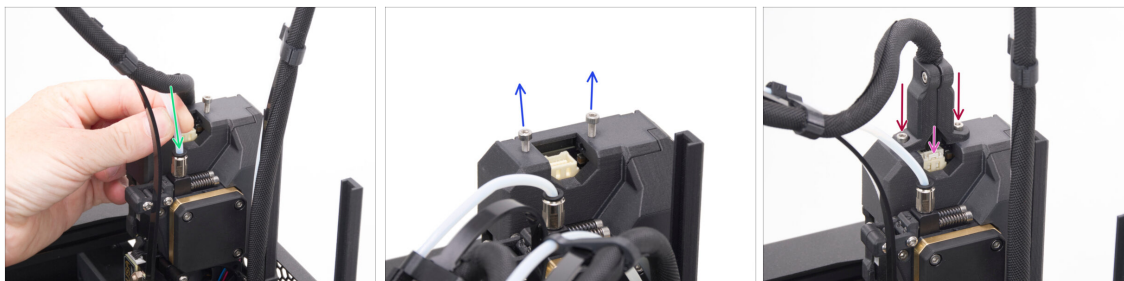
- Take the Nextruder and place it carefully next to the first dock.
- Align the two pins on the Nextruder with the corresponding openings in the dock.
- Once aligned, the magnets will pull the Nextruder into place.
- i** You can now let go of the Nextruder. The magnets will hold it in place.
- Continue with the remaining Nextruders using the same procedure.

STEP 30 Nextruder cable bundle assembly



- Repeat this step for all tool heads:
 - Take the first Nextruder cable bundle.
 - !** Check that the **cable bundle is not twisted!** Compare it with the image.
- Take the flexible plate.
 - Hook up the keyhole openings in the flexible plate onto the screw heads.
 - i** If you cannot attach the flexible plate, slightly loosen the screws and try again.
 - Pull it up to correct the position.
 - Hold the Nextruder and using a T10 Torx screwdriver tighten the two screws.

STEP 31 Two screws version: Nextruder cable bundle assembly



● **Repeat this step for all tool heads:**

- Insert the semi-transparent PTFE tube into the fitting on the nextruder. Push it all the way in.
- Remove two M3x10 screws.
- Plug the cable connector to the top of the nextruder.
- Secure the connector with two M3x10 screws.

● **Repeat the same procedure for the remaining Nextruders.**

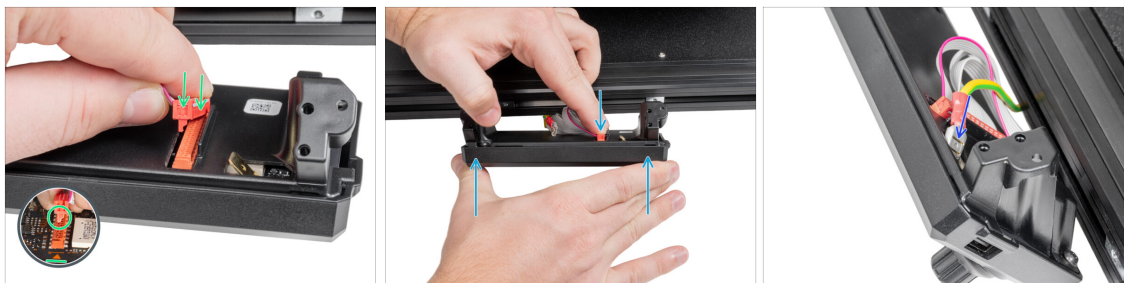
STEP 32 xLCD assembly: parts preparation



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

- xLCD assembly (1x)
- M3x10 screw (2x)

STEP 33 Connecting the xLCD cables



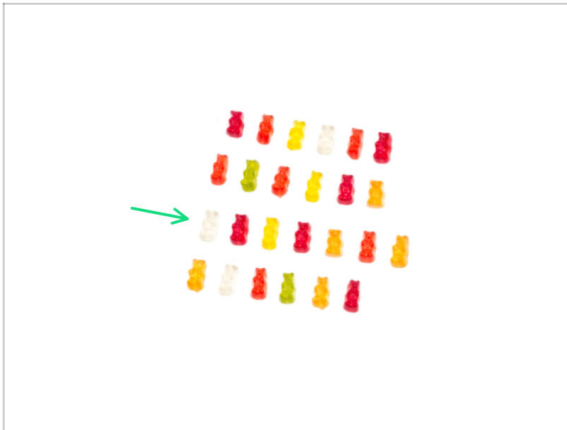
- Connect the xLCD cable to the slot on the xLCD board.
- ① There is a latch on the xLCD cable connector, which **must be facing the triangle symbol** on the board.
- Push the xLCD cable connector to fully connect to the xLCD. Hold the xLCD cover.
- Push the grounding connector fully into the PE faston.

STEP 34 Mounting the xLCD



- Align the xLCD assembly with the nuts in the front aluminum extrusion.
- Insert and tighten the M3x10 screw from the right side of the xLCD.
- Insert and tighten the M3x10 screw from the left side of the xLCD.
- The injection-molded xLCD is mounted and ready.

STEP 35 Reward yourself



- Great job! Reward yourself with another row of gummy bears.
- Eat the third row: seven gummy bears.
- ❗ Did you know that the bright colors of gummy bears are achieved through the use of food coloring, which adds to their visual appeal?

STEP 36 Almost done!



- Compare the final look with the picture.
- **Congratulation!** Your Original Prusa XL is ready to be fired up!

4. First run



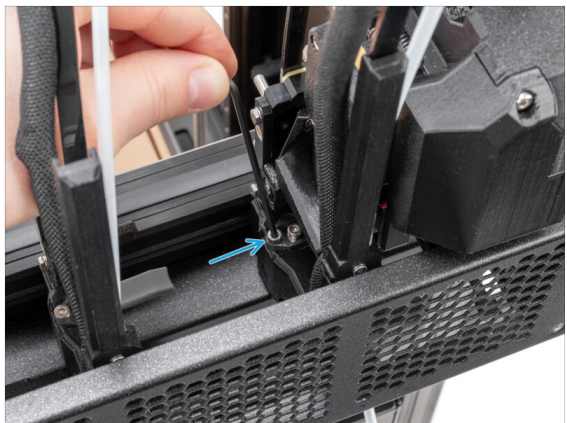
STEP 1 Before you start with Multi-Tool



- i** This chapter shows a brief description of the wizard. Please note that the screenshots are illustrative and might differ from those in the firmware.
- i** Make sure you are running **Firmware 6.2.4 or newer**.
- i** Some parts of the wizard must be done multiple times, this depends on the number of tool-heads. For example:

 - Dock Calibration
 - Loadcell calibration
 - Filament sensor calibration

STEP 2 Nozzle seal height calibration



- On the Nozzle seal height calibration steps were used docked Nextruder without the printer for better visibility, proceed next steps on your printer. **Do not dismantle the docks.**
- In the next step, we'll calibrate the height of the nozzle seal.
- Using the 2.5 mm Allen key, tighten or untighten the M3x30 screw to calibrate the height of the nozzle seal.

STEP 3 Nozzle seal height calibration



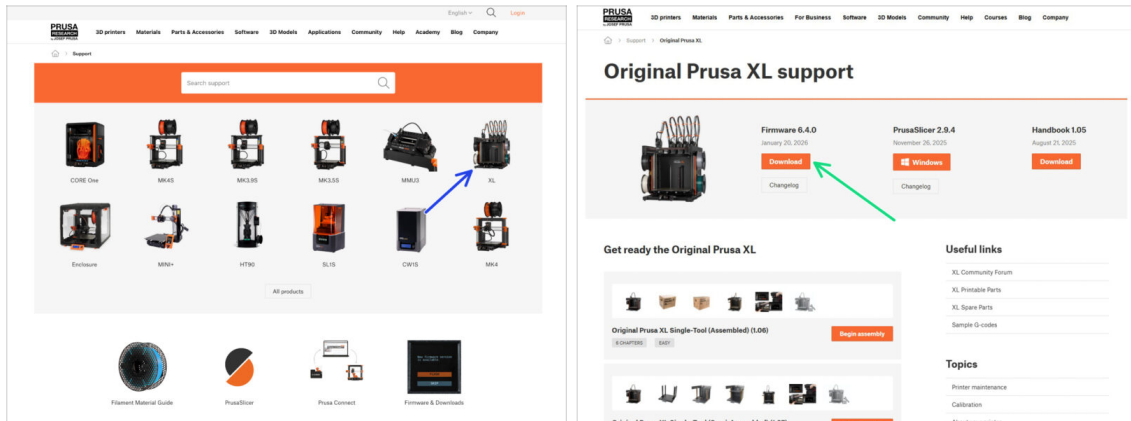
- If the nozzle seal is too low or too high, we need to reposition its height.
- Using a 2.5 mm Allen key, turn the M3x30 screw clockwise to set the Nozzle seal lower.
 - ⓘ If you are having trouble reaching the screw, then you can detach the adjacent printhead to gain better access.
- If the Nozzle seal is not bent and it is touching the nozzle, it is in the correct position.
 - ⓘ Try gently pushing on the bottom of the nozzle seal with your finger to check that the nozzle seal is touching the nozzle.

STEP 4 Preparing the printer



- ⚠ Make sure that the printer is placed in a stable place where no ambient vibrations are transmitted (for example, where other printers are printing).
- From the rear side of the printer, plug in the PSU cable.
- Turn the power switch ON (symbol "I").

STEP 5 Firmware update



- ❗ All shipped printer packages include a USB drive with the latest firmware. However, it is recommended to check and possibly upgrade the firmware version.
- 🛒 Visit the help.prusa3d.com page.
- 🔵 Navigate to the Prusa XL page.
- 🟢 Save the firmware file (*.bbf*) onto the *bundled USB drive*.
- ❗ Pro tip: To access Prusa XL homepage you can use the URL: prusa.io/XL

STEP 6 Wizard: Network and Prusa Connect setup



- ❗ After the printer starts up, the screen prompts for the printer test and setup wizard.
- 🛒 The initial setup starts with the optional NETWORK SETUP, which also includes PRUSA CONNECT SETUP. Follow the instructions on the screen if you want your printer connected to Wi-Fi and Prusa Connect.

STEP 7 Wizard: Calibration tests



 The wizard will test all important components of the printer. Some parts of the wizard require direct user interaction. Follow the instructions on the screen.

 **WARNING: Do not touch the printer during the wizard unless prompted! Some parts of the printer may be HOT and moving at high speed.**

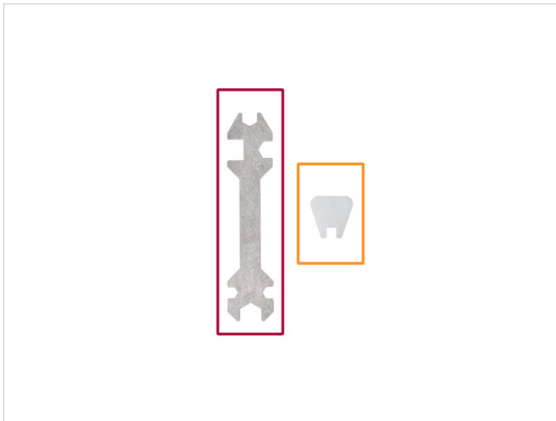
 The wizard starts with these tests:

- Fan test
- X-axis and Y-axis test
- Z-axis alignment calibration

● These first tests are fully automatic during the first calibration.

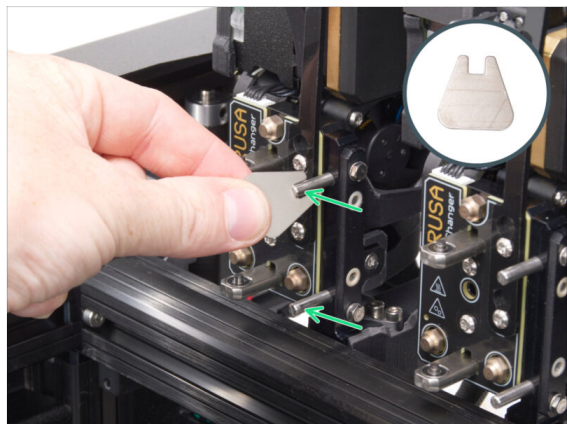
 **While testing the axes, make sure that there is nothing in the printer that is obstructing the movement of the axes.**

STEP 8 Wizard: Dock Position Calibration



- ❗ This test will require your input. The printer will guide you through properly calibrating the position of individual tool heads on the printer.
- ⬛ You will need:
 - 🔧 Universal wrench (1x)
 - 🔧 Mini wrench (1x)
- ⚠ It is necessary to follow every step in the dock calibration properly! **Do not rush. Read every step twice, then proceed with the instruction.**

STEP 9 Wizard: Remove the dock pins



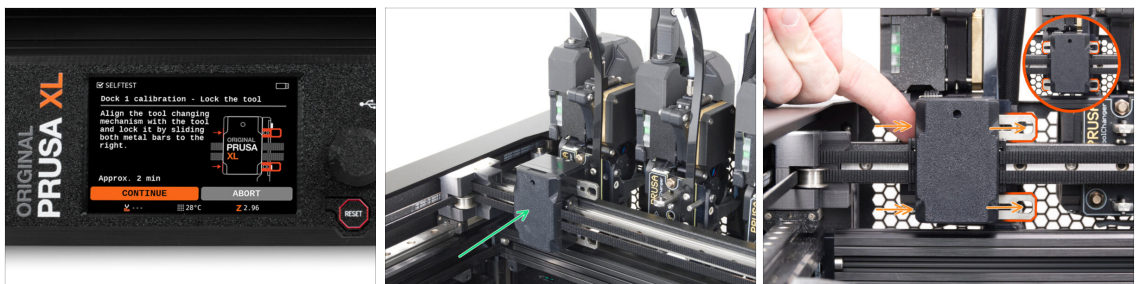
- ⬛ Follow the wizard instructions on the screen.
- 🟢 Using a Mini wrench, unscrew and remove both dock pins on Dock 1. Set them aside, we will use them again soon.

STEP 10 Wizard: Loosen screws



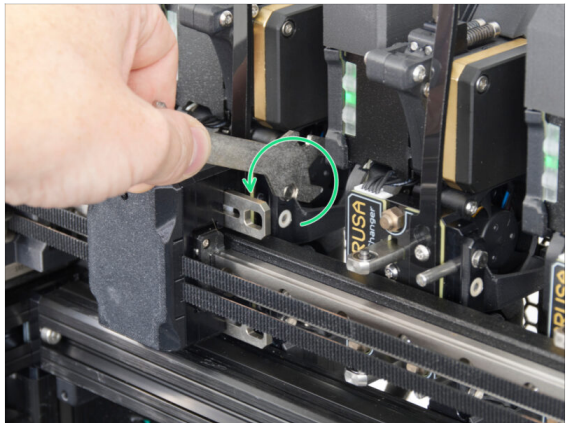
- Follow the wizard instructions on the screen.
- Using a Uni wrench, loosen two screws. **A few turns are enough; do not remove the screws.**

STEP 11 Wizard: Lock the tool



- Follow the wizard instructions on the screen.
- Slowly and carefully move the tool changing mechanism by hand to the first (leftmost) tool.
- Manually lock the metal bars as indicated in the picture.
- The tool has to be locked in the tool changer.**

STEP 12 Wizard: Tighten the upper screw



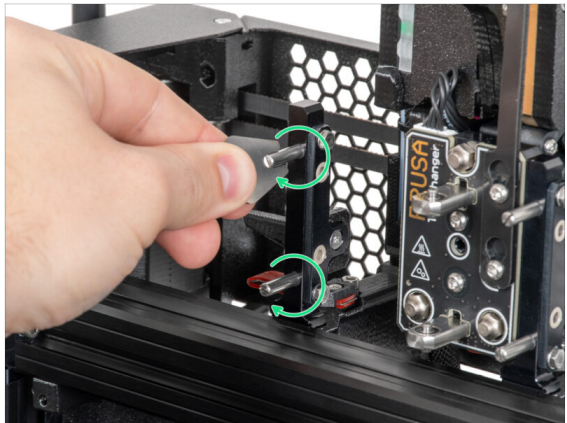
- Follow the wizard instructions on the screen.
- Using a Uni wrench, tighten the upper screw on the side of the dock.
- ⚠ After confirming by the *continue* button on the LCD, the XY axis will leave the dock with the tool. **Make sure that there are no obstacles in the way.**

STEP 13 Wizard: Tighten the lower screw



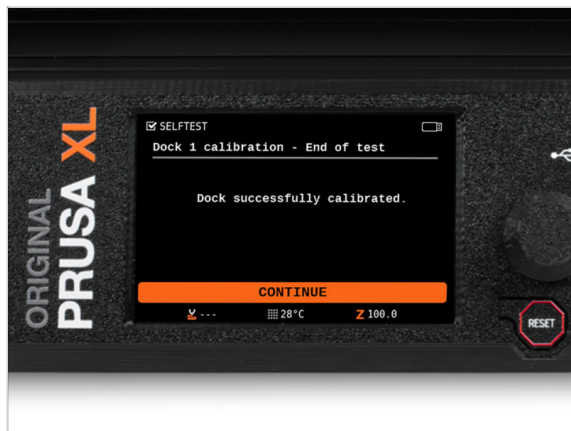
- Follow the wizard instructions on the screen.
- Using a Uni wrench, tighten the lower screw on a side of the dock.

STEP 14 Wizard: Install the dock pins



- Follow the wizard instructions on the screen.
- Insert the two metal pins and tighten them with a Mini wrench.
- After clicking on the *continue* button on the LCD, the printer will put the tool back into dock 1 and perform a few calibration moves.

STEP 15 Wizard: Dock successfully calibrated



- Good job! Dock 1 is calibrated.
- Repeat the calibration process for all printheads.

STEP 16 Wizard: Loadcell test



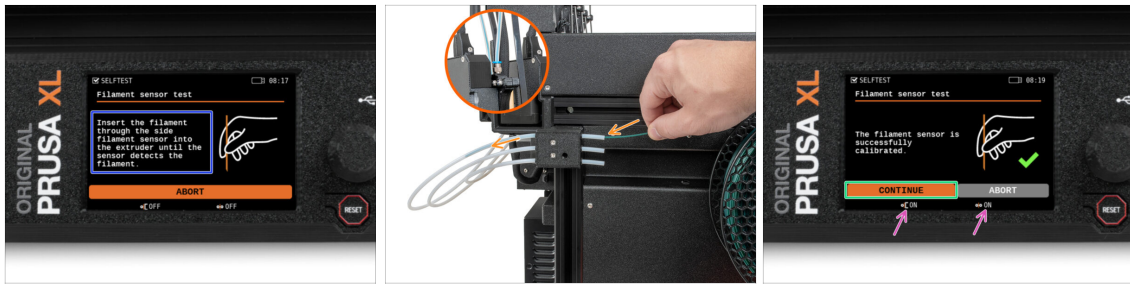
- ◆ The next step of the wizard will prompt you to touch the nozzle to test and calibrate the Loadcell. Parts of the printer are not heated during this test; you can touch the parts of the printer. Click on **Continue**.
- ◆ **Do not touch the nozzle yet.** Wait until the countdown finishes and the printer notifies you with a sound and display prompt.
- ◆ Tap the nozzle gently but firmly. Do not use excessive force. In case the loadcell does not detect your touch, you will be prompted to repeat the step.
- ❗ Repeat the loadcell test according to the number of print heads.
- 📌 After this step, proceed to the **Z Axis test** and the **Nozzle heater test** respectively. These two tests are automatic and require minimal input.

STEP 17 Wizard: Calibrate Filament Sensors



- ◆ The printer will ask if you would like to remap the third side filament sensor. Select **Left**. Change the side only in case you do not have enough space around the printer for the third spoolholder on the left side.
- ◆ During the calibration of the filament sensors, you will be prompted to use at least 130 cm of filament. Use the Prusament shipped with your printer and mount it on the spool holder.
- ◆ When you have prepared the filament, click on **Yes**.
- ◆ Wait for the printer to prompt you to insert the filament into the side filament sensor.

STEP 18 Wizard: Calibrate Filament Sensors



- Insert the filament into the side filament sensor through the PTFE tube. Push it in until it reaches the filament sensor in the extruder (you will feel a slight resistance).
- You can check the side filament sensor (left) and extruder filament sensor (right) status on the bottom bar on the screen.
- At the end of the test, you will be prompted to **remove the filament from the sensor**.
- i According to the number of print heads, repeat the filament sensor calibration process.
- Once all five filament sensors are successfully calibrated and tested, the printer will move on to the tool offset calibration. This will require your input. Move on to the next step →

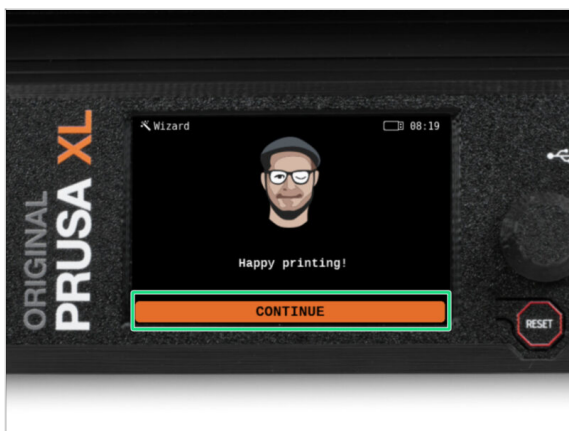
STEP 19 Wizard: Phase stepping



- ◆ **The last step is the phase stepping calibration.** This feature was introduced in firmware version 6.0.0. The calibration is automatic. Follow the instructions on the screen.
- ① You can find more information about the phase stepping via the following links:

 - 📌 **PHASE STEPPING GUIDE:** Necessary information about the phase stepping calibration.
 - 📌 **PHASE STEPPING BLOG ARTICLE:** A more in-depth look at the phase stepping feature.
- ① The printer will move the first print head to the middle of the heatbed and move the tool diagonally for the X and Y axes at different speeds.
- After the printer completes the test, the screen will show by how much the motor vibrations were reduced.

STEP 20 It's done



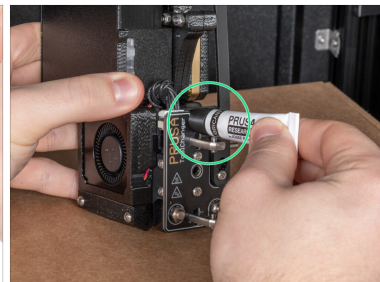
- ◆ **Well done! The printer is ready to print.** However, follow the instructions in this manual to the end.

STEP 21 Prusa nextruder sock (Optional)



- ⓘ The nextruder sock helps to keep the temperature in the heater block stable. It also keeps your hotend clean from filament dirt and protects it in case the print detaches from the print surface.
- 🟡 A silicone sock is supplied with each Nextruder package.
- ⬛ **If you want to install the sock, we recommend doing it after the calibration.**
- ⓘ How to install the sock - check the article.

STEP 22 Regular printer maintenance



- ⓘ To keep your printer working properly over time, it is highly recommended to do regular maintenance.
- ⬛ For regular printer maintenance, follow the Regular printer maintenance (XL) article for information and instructions.
- 📌 On multi-tool printers, it is necessary to focus on lubricating the coupler pins of the ToolHeads.
 - ⓘ Lubricating the coupler pins can be made along with the rest of the maintenance, or it can also be done if you notice that your prints have banding or ringing issues.
 - 🟢 To lubricate the coupler pins use our dedicated online guide [How to lubricate the coupler pins on Original Prusa XL](#).
 - ⓘ You will need to print an applicator to lubricate the pins. Please refer to the dedicated guide for more information.

STEP 23 Quick guide for your first prints

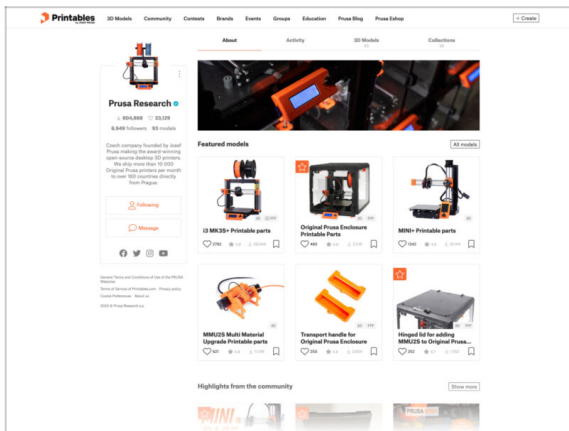


Now, please read the **3D Printing Handbook**, which is tailor-made for your printer and **follow the instructions to set up the printer properly**. The latest version is always available at **this link**.



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

STEP 24 Printable 3D models



Congratulations! You should be ready to print by now ;-)



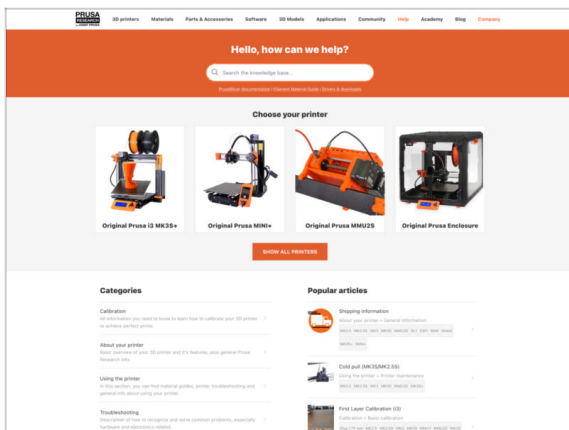
You can start by printing some of our test objects bundled on the included USB stick - you can check them out in this collection.

STEP 25 Give us feedback



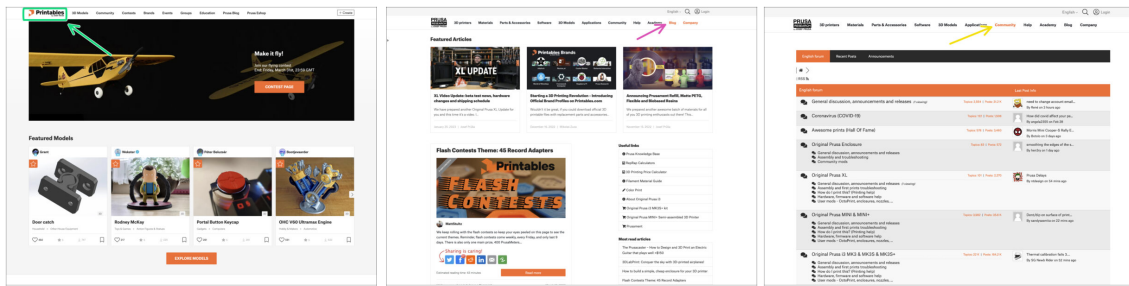
- ◆ We know you're eager to start printing, but we'd really appreciate it if you could take 3–4 minutes to **share your thoughts** on this manual: how clear it was, how easy it was to follow, and any ideas to improve it.
 - ⓘ This feedback is a little different from the usual comments you might leave on individual steps.
- ◆ **Share your feedback here.**
- ◆ Thank you for helping us make our manuals even better!

STEP 26 Prusa knowledge base



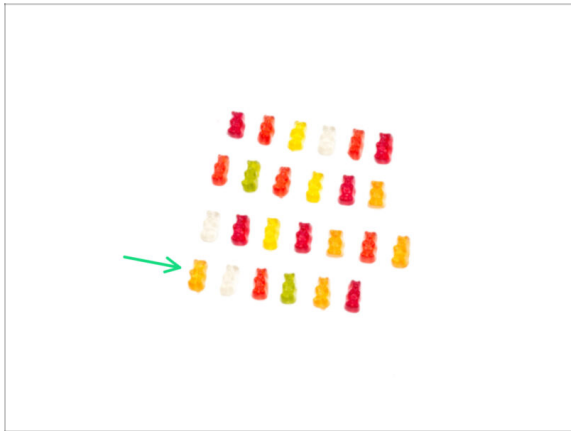
- ◆ If you encounter any problems at all, don't forget you can always check out our knowledge base at help.prusa3d.com
- ◆ We're adding new topics every day!

STEP 27 Join Printables!



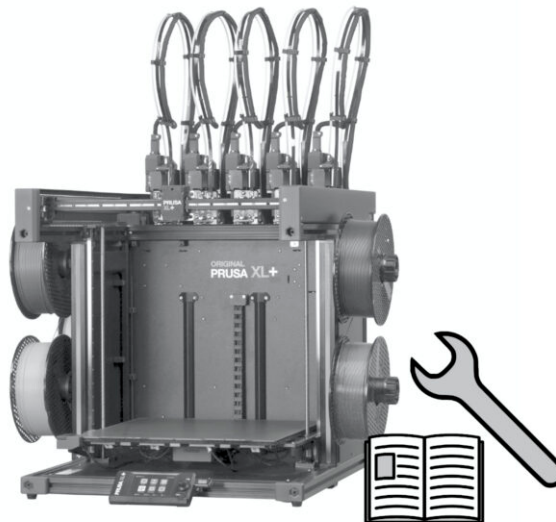
- 🟢 **Don't forget to join the biggest Prusa community! Download the latest models in STL or G-code tailored for your printer. Register at [Printables.com](https://www.printables.com)**
- 🟡 Looking for inspiration on new projects? Check our blog for weekly updates.
- 🟡 If you need help with the build,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

STEP 28 Haribo time!

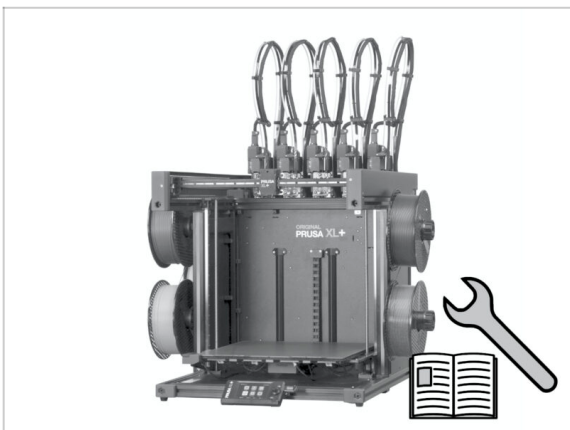


- 🟢 **Congratulations! You did it.** The printer should already be up and running, and you can enjoy the last row of gummy bears: six gummy bears.
- 📁 **Disclaimer: You have a lot of gummy bears left. Do not eat all the leftover gummy bears all at once by yourself now!** As much as it sounds like it could be fun, trust us... You do not want to **bear** the consequences.
- 🟡 We recommend re-sealing the bag and placing it near the printer while making sure to protect the Haribo from heat and moisture. You can have a few anytime your printer is heating up, or you are eagerly waiting for your project to finish printing.
- 📁 Did you know that gummy bears have a long shelf life? Typically lasting for up to two years if stored properly in a cool and dry place. But don't test that with our gummy bears.

Manual changelog



STEP 1 Version history



- **Versions of the Prusa XL+ (assembled) manual:**
- 08/2026 - Initial version 1.00

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, solid white color.

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 writing. The background is a clean, solid white color. There are no margins, text, or other markings present on the sheet.

This image shows a full page of blank, lined paper. It features approximately 20 horizontal blue or grey lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings 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 writing. The background is a clean, solid white color. There are no margins, text, or other markings present on the sheet.

