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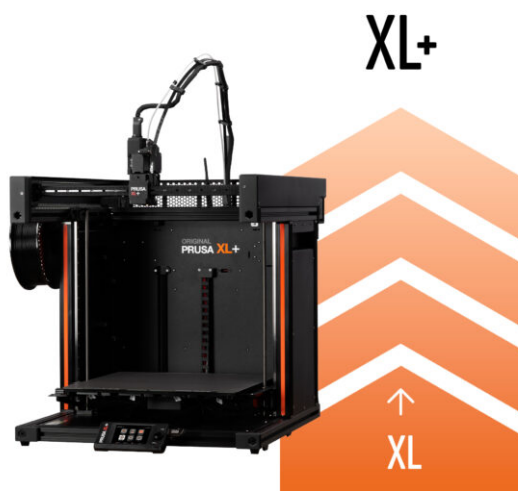
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1. Introduction

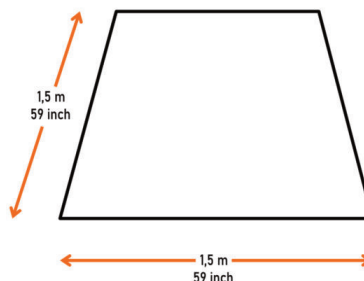
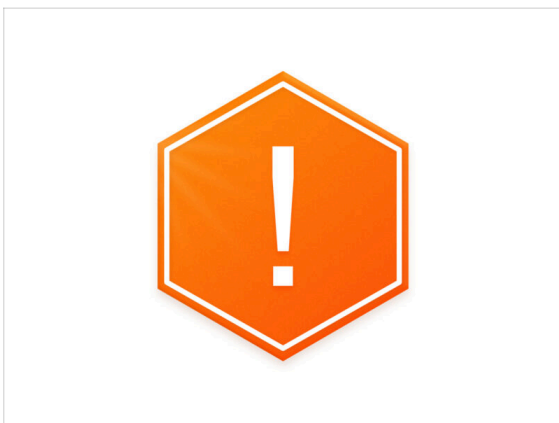


PASSO 1 Introduction



- This guide will take you through the **upgrading your Original Prusa XL to XL+**.
- **Do not discard any parts unless instructed to do so.**
- This also applies to the fasteners; you will reuse some of them later again.

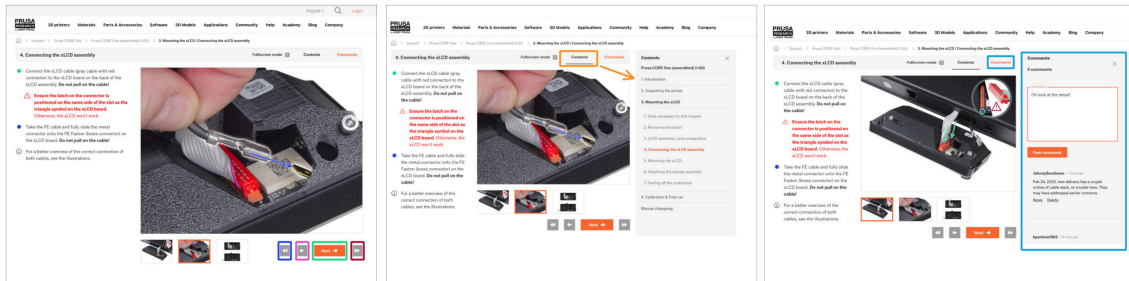
PASSO 2 General information



⚠ La confezione con la stampante è pesante! Chiedi sempre aiuto a qualcuno per la movimentazione.

- **Per il montaggio prepara una superficie di lavoro pulita con uno spazio di almeno 1,5 m x 1,5 m (59" x 59").**
- Si consiglia di posizionare una luce intensa sopra il banco di lavoro. Alcune parti della stampante sono buie e una luce insufficiente potrebbe rendere più difficile l'assemblaggio.

PASSO 3 Come navigare nel manuale



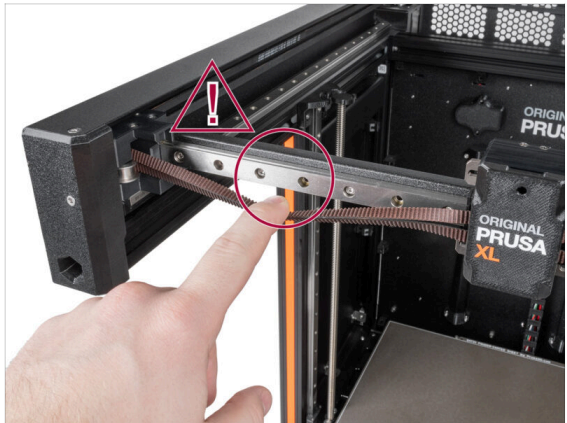
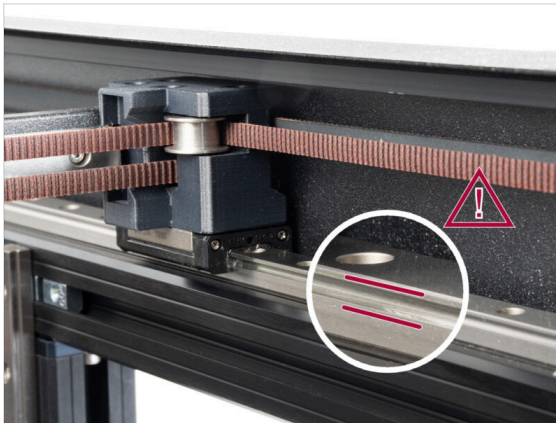
- Usa i pulsanti grafici di navigazione nell'angolo in basso a destra o i tasti freccia della tastiera:
 - **Pulsante successivo / Tasto freccia destra** - Passa all'immagine successiva o alla fase successiva se si tratta dell'ultima immagine della fase.
 - **Pulsante freccia sinistra / Tasto freccia sinistra** - Passa all'immagine precedente o alla fase precedente se si tratta della prima immagine della fase.
 - **Pulsante Play indietro / Tasto freccia su** - Vai al passo precedente.
 - **Pulsante Play Avanti / Tasto freccia giù** - Vai al passo successivo.
- Clicca su **Contenuti** per espandere l'elenco completo dei passi di questa guida. Questo ti permette di saltare a qualsiasi passo, indipendentemente dalla sequenza.
- Clicca su **Commenti** per aprire la discussione su un passo specifico e lasciare il tuo feedback.

PASSO 4 Labels guide



- i Tutte le scatole e le buste che contengono i pezzi necessari per il montaggio sono etichettate.
- La busta LCD Fasteners include un ricambio extra di ogni parte contenuta nella busta. La quantità di ricambi è riportata sull'etichetta. Questo numero è incluso nel numero totale di ogni tipo di pezzo.

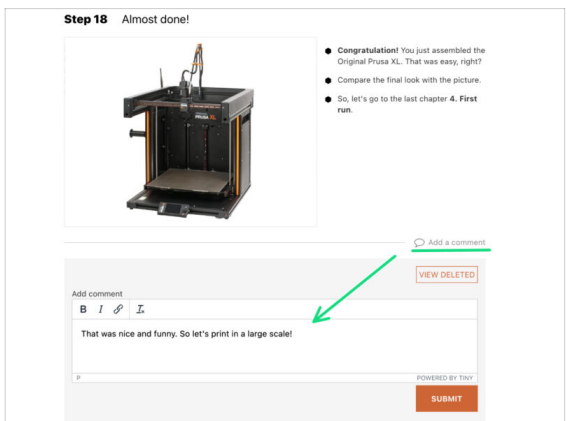
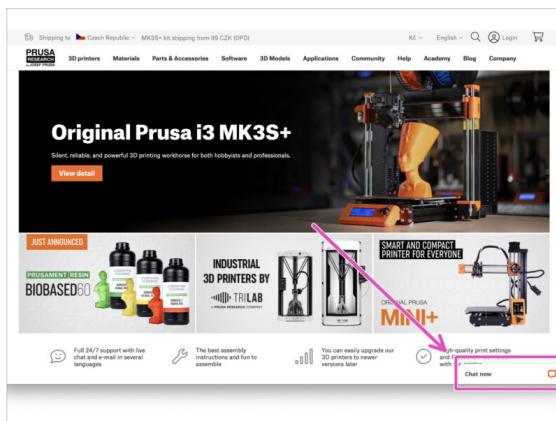
PASSO 5 CAUTION: Lubricant Handling



⚠ ATTENZIONE: evita il contatto diretto sulla pelle con il lubrificante utilizzato per le guide lineari di questa stampante. In caso di contatto, lavati immediatamente le mani. Soprattutto prima di mangiare, bere o toccarsi il viso.

- Il lubrificante si accumula nei cuscinetti della stampante, soprattutto nei canali delle guide lineari.

PASSO 6 Siamo qui per te!



- Ti sei perso nelle istruzioni, ti manca una vite o hai una parte stampata rotta? **Faccelo sapere!**
- Puoi contattarci utilizzando i seguenti canali:
 - I commenti sotto ogni passo.
 - La nostra live chat 24 ore su 24, 7 giorni su 7 su shop.prusa3d.com
 - Scrivendo una mail a info@prusa3d.com
- Sei pronto a iniziare il montaggio? Passiamo al capitolo **2. Unboxing della stampante.**

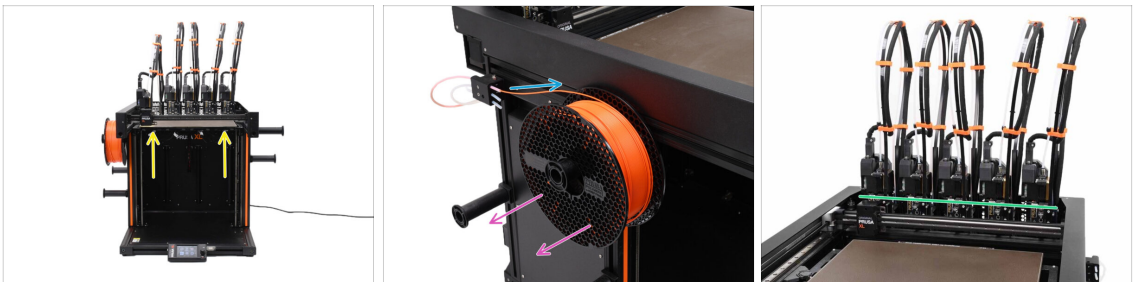
PASSO 7 DISCLAIMER: Photos from a different manual



⚠️ DISCLAIMER: Some steps of this guide use photos from the Dual/Multi Head version of the upgrade. However, the steps of the guide remain the same and the photos should not interfere with the upgrade assembly.

- The Single Head version of XL+ has only 1 toolhead.
- The Tool offset is not a part of the Single Head model.

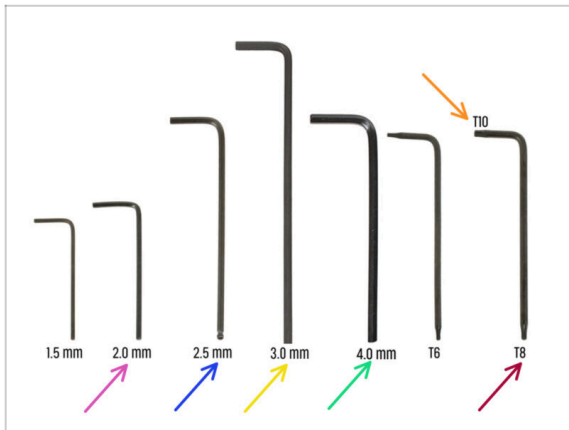
PASSO 8 Preparing the printer



● Before you begin:

- Perform an **Auto Home**. Go to **Menu -> Control -> AutoHome**.
 - ⓘ This will move the heatbed to the top position, providing easier access to its underside.
- Unload all filaments from the printer. No filament must remain loaded in any print head.
- Remove all filament spools from the spool holders.
- Make sure all tools are parked in their docks. Go to **Menu -> Control -> Pick/Park tool -> Park Current Tool** and repeat for each tool if necessary.
- ⚠️ Before proceeding, **make sure the printer has cooled down to room temperature**. Go to **Menu -> Preheat -> COOLDOWN** and wait approximately 10 minutes for the temperature to stabilize.
- Turn off and unplug the printer.

PASSO 9 Necessary tools I.



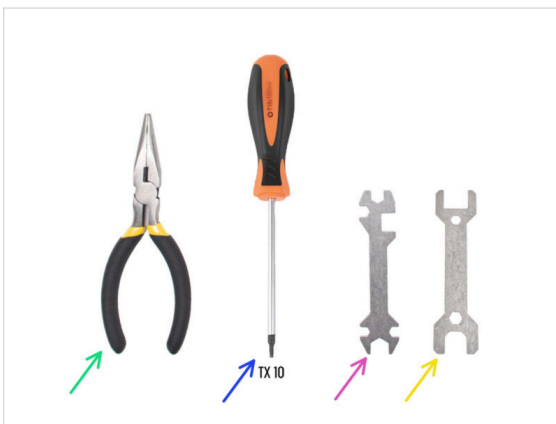
Per questa guida prepara:

- 2.0mm Allen key
- 2.5mm Allen key
- 3.0mm Allen key
- 4.0mm Allen key
- T8 Torx key
- T10 Torx key



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

PASSO 10 Necessary tools II.



Per questa guida prepara:

- Needle-nose pliers
- T10 Torx screwdriver
- Universal wrench
- Wrench 13-16
- Side cutters *for cutting zip ties*

2. Toolhead upgrade



PASSO 1 Protecting the heatbed



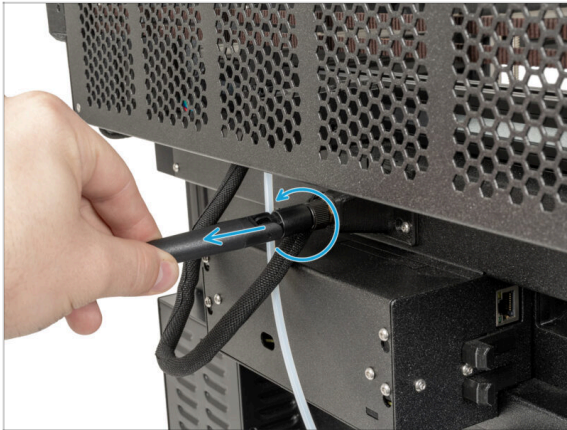
- **Prima di procedere, si raccomanda di proteggere il piano riscaldato.**
- Turn the printer so that the front side is facing you.
- Assicurati che il piano riscaldato sia raffreddato a temperatura ambiente. Posiziona la scatola di cartone vuota verso la parte anteriore centrale del piano riscaldato.

PASSO 2 PTFE unplugging



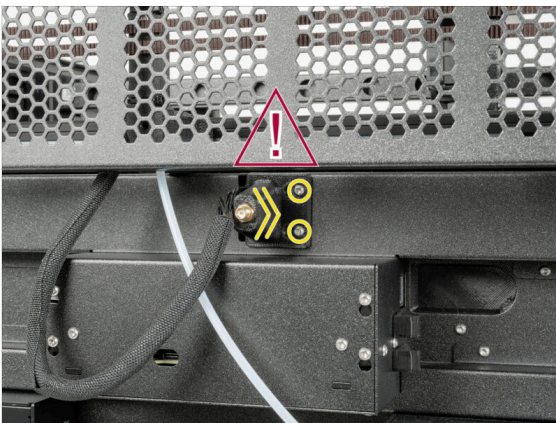
- Gira la stampante in modo che il lato sinistro sia rivolto verso di te.
- Spingi delicatamente il colletto nero per rilasciare il tubo in PTFE.
- Tira fuori il tubo in PTFE.

PASSO 3 Wi-Fi antenna detaching



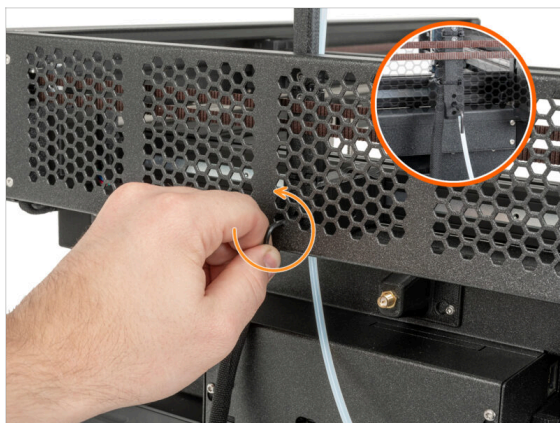
- ❗ Questo passaggio è previsto solo per le stampanti che dispongono di un'antenna Wi-Fi sulla parte posteriore della stampante.
- Gira la stampante in modo che il lato posteriore sia rivolto verso di te.
- Svita l'antenna Wi-Fi dal connettore dell'antenna e posizionala nelle vicinanze.

PASSO 4 Scollegare il cavo Nextruder



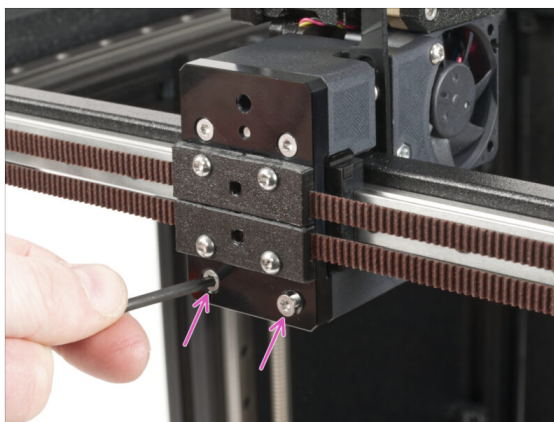
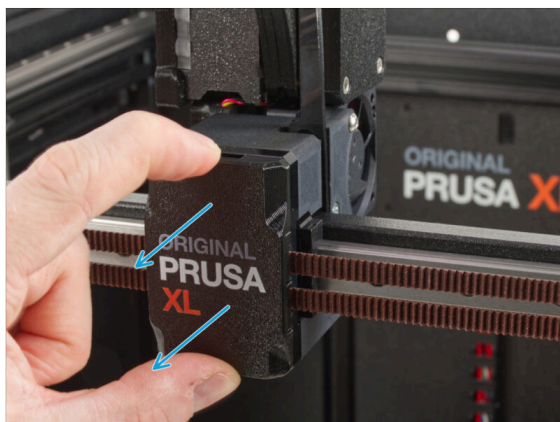
- Gira la stampante in modo che il lato posteriore sia rivolto verso di te.
- ⚠ **C'è un cavo dell'antenna dietro il porta-antenna, non tirare il connettore!**
- Using a T10 Torx screwdriver, loosen two screws on the cover slightly. No need to remove them completely. Push the cover to the right and gently remove it from the screws.
- Premi il fermo di sicurezza e scollega il cavo Nextruder dal connettore "DWARF1".

PASSO 5 Dock detaching



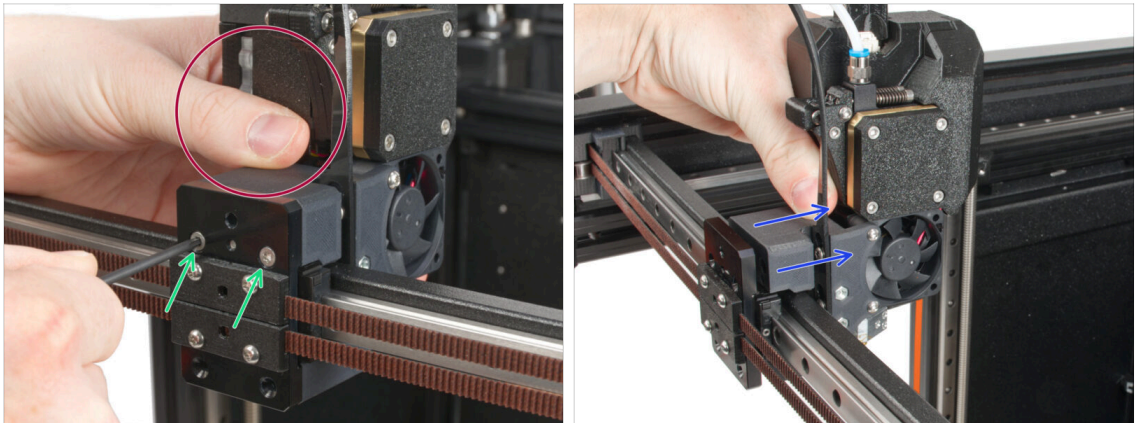
- ❗ Per le vecchie coperture posteriori CoreXY senza ritagli esagonali (motivo a nido d'ape), allenta la vite nel dock come indicato. La procedura rimane la stessa.
- 🟡 Utilizzando una chiave a brugola da 2,5 mm, svita la vite all'interno del dock (foro centrale).
- 🟢 Tieni il fascio di cavi Nextruder vicino alla stampante.

PASSO 6 Nextruder releasing



- ⬛ Gira la stampante in modo che il lato anteriore sia rivolto verso di te.
- 🔵 Snap off the x-carriage-cover back from the X-carriage.
- 🟡 Using a T10 Torx key, remove two M3x12bT screws. Do not throw the parts away!

PASSO 7 Nextruder detaching



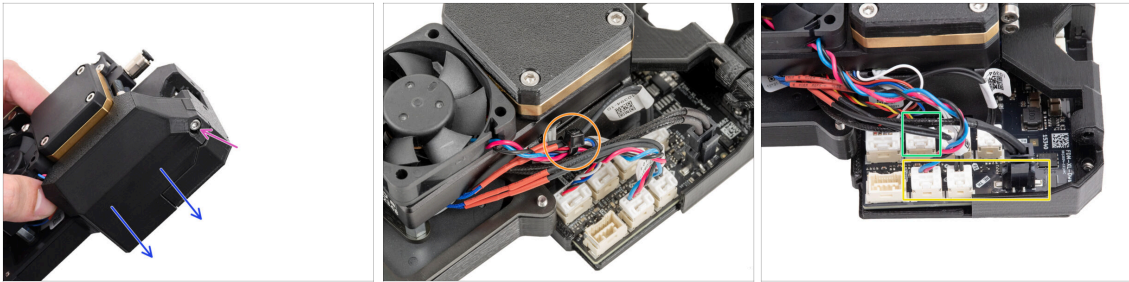
- 🔴 Tieni il Nextruder durante lo smontaggio.
- 🟢 Svita le due viti M3x12bT con una chiave Torx T10.
- 🟡 Detach the Nextruder and place it nearby, we will work on it in the next steps.

PASSO 8 Cable bundle removing



- 🟠 Using a T10 Torx screwdriver, release, but do not remove two screws securing the flexible plate. 2-3 turns are enough. Then unhook the flexible plate from the screws.
- 🟡 Press the black (or blue) fitting and pull out the PTFE tube.
- 🔴 Loosen the two screws securing the main cable connector cover.
- 🟢 Unplug the main cable from the Nextruder.
- ⚠️ **Warning: The connector has a safety latch that must be pressed to release the cable.**
- ⬛ Remove the Nextruder from the box and place it on the workbench.

PASSO 9 Uncovering the Nextruder cables



- Remove the screw securing the Dwarf-cover-door.
- Remove the Dwarf-cover-door and discard it. It will no longer be needed.
- Carefully cut the zip tie securing the Nextruder cables. **Avoid cutting the cables.**
- Disconnect the three cables in the right row of connectors.
- Disconnect the heatsink fan cable and hotend thermistor cable from the left row of connectors.

PASSO 10 Removing the dwarf covers



- Remove two screws securing the Dwarf-cover-back.
- Slide the Dwarf-cover-base (the top part) out of the Nextruder.
- Slide the Dwarf-cover-back down and remove it from the Nextruder.

PASSO 11 Info: Dwarf board version



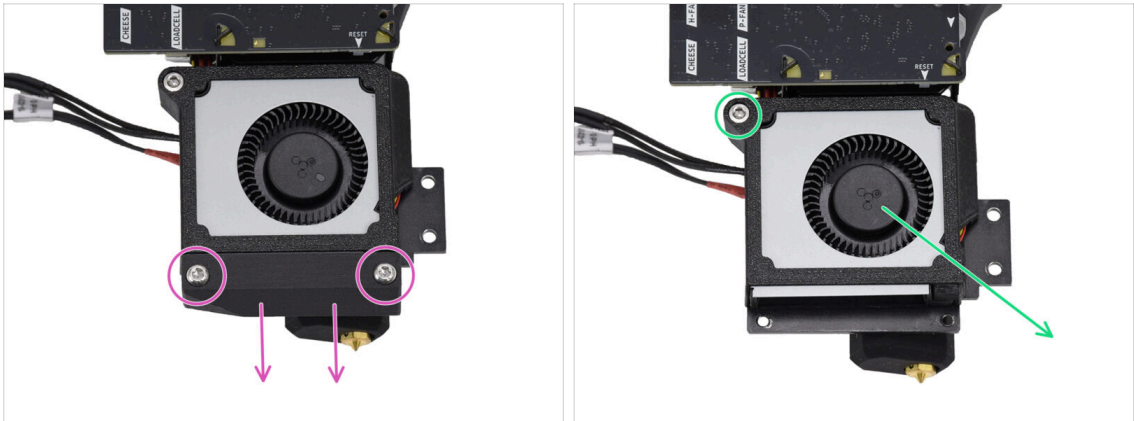
- **Check the Dwarf board version. Some versions require replacement.**
- The board version is printed on the back of the board.
 - ❗ Typically versions 08|2024-12|cMC, etc. **The first two digits (08)** represent the board version.
- **Dwarf board versions 07 and earlier are not compatible** with the XL+ upgrade.
 - If this version is installed, replace the Dwarf board using the dedicated guide [How to replace a Dwarf board \(XL single-tool\) | Begin assembly](#).
 - ❗ Follow only the steps required for the board replacement. The Nextruder has already been partially disassembled.
 - After replacing the Dwarf board, return to this guide and continue from this step.

PASSO 12 Releasing the Nextruder body



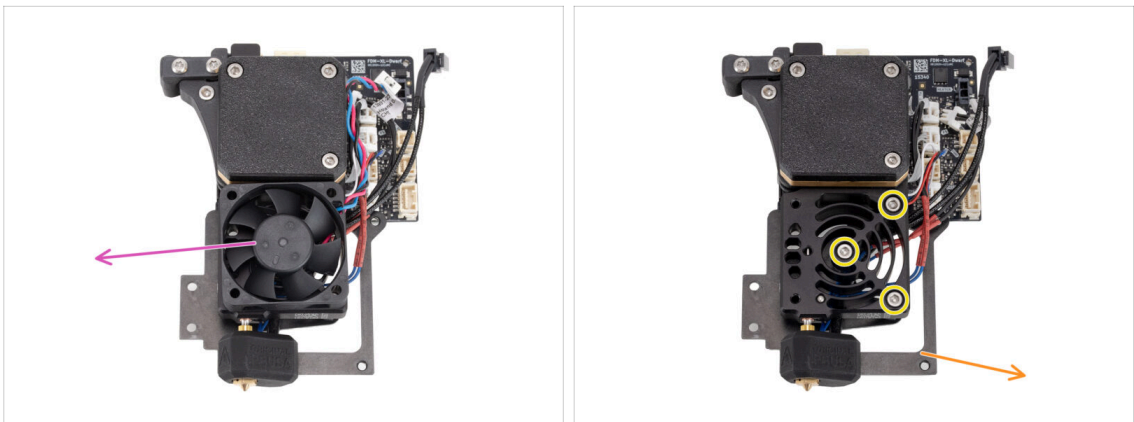
- From the right side of the Nextruder, unscrew two M3x20rT screws.
- From the opposite side of the Nextruder, remove two screws securing the Nextruder body.
- Remove the Nextruder body from the Nextruder.

PASSO 13 Rimuovere la ventola di stampa



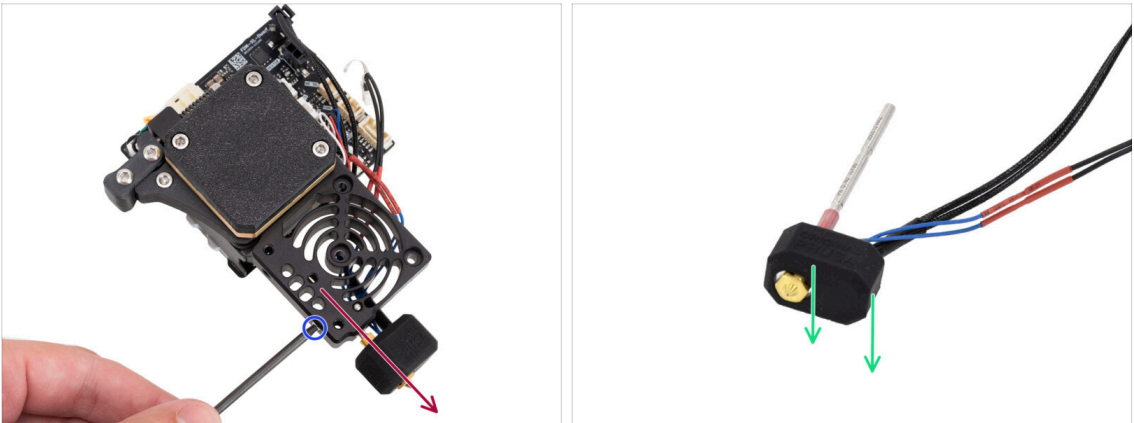
- ◆ Unscrew two screws securing the fan-shroud and remove it from the Nextruder.
- ◆ Remove the screw securing the print fan, then remove the print fan.
- Both parts will not be needed anymore.

PASSO 14 Rimuovere la ventola del dissipatore



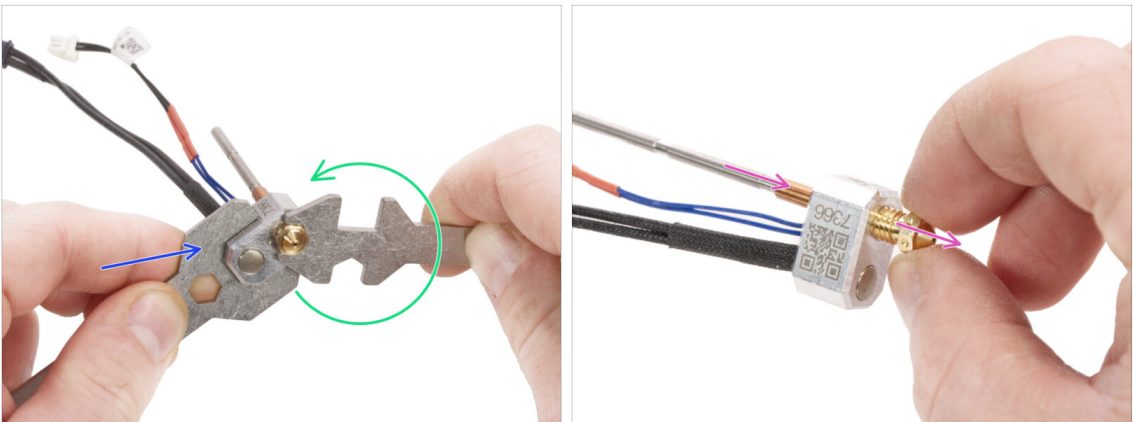
- ◆ Remove the heatsink fan from the Nextruder.
- ◆ Release three screws holding the extruder plate (metal sheet).
- ◆ Remove the extruder plate.
- ① This part will no longer be needed.

PASSO 15 Removing the hotend



- From the heatsink side, loosen the set screw securing the hotend. **Do not remove it completely**; 2-3 turns are sufficient.
- Carefully slide the hotend assembly out of the heatsink.
- If a silicone sock is installed on the hotend, remove it.

PASSO 16 Rimuovere l'ugello Prusa Nozzle



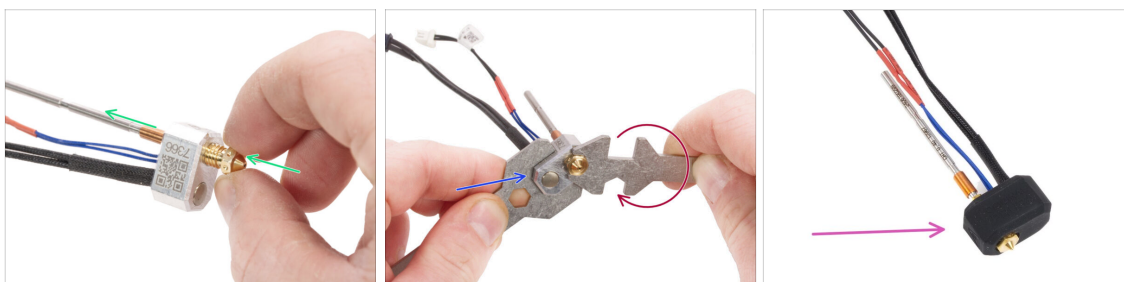
- Using the wrench 13-16 grasp the heaterblock.
- Using the 7mm cutout in the universal wrench, grasp the nozzle and loosen it.
- Manually release and remove the Prusa Nozzle from the hotend assembly.

PASSO 17 Installazione dell'ugello Prusa Nozzle: preparazione dei componenti



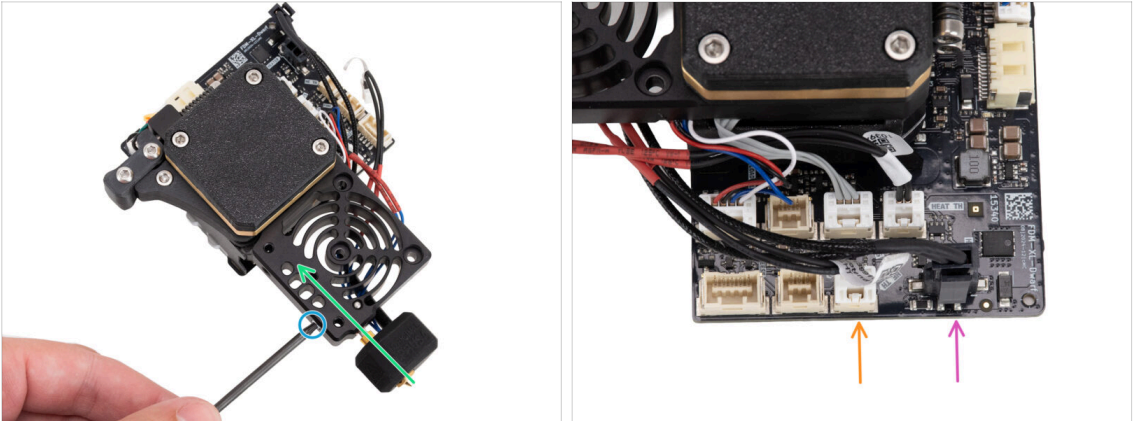
- For the following steps, please prepare:
- New Prusa Nozzle CHT (1x)

PASSO 18 Installazione dell'ugello Prusa Nozzle



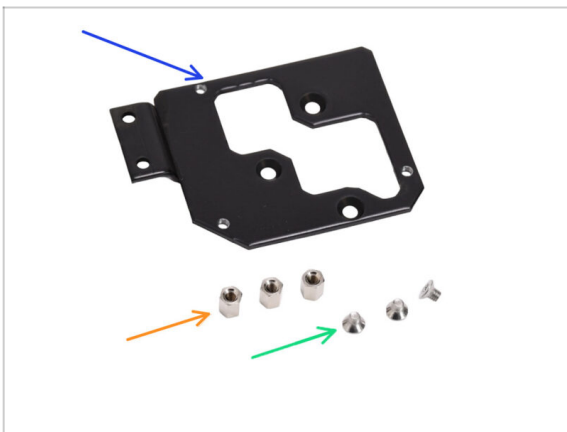
- Insert the nozzle all the way into the heaterblock until the nozzle touches the heaterblock surface.
- Grasp the heaterblock with the wrench 13-16.
- Using the 7mm cutout in the universal wrench, tighten the nozzle against the heaterblock. Do not use any extra force!
- i** The specified torque value is 1.5 Nm (13.3 lb-in).
- Reinstall the silicone sock on the hotend.

PASSO 19 Inserting the hotend



- Fully insert the hotend assembly into the heatsink.
- Lightly tighten the set screw to secure the hotend.
 - ⚠ **Do not fully tighten the set screw. The hotend must still be able to rotate. It will be completely tightened later.**
- Plug the hotend thermistor to the connector labeled HE HT.
- Plug the hotend heater to the black connector on the right.

PASSO 20 New extruder plate: parts preparation



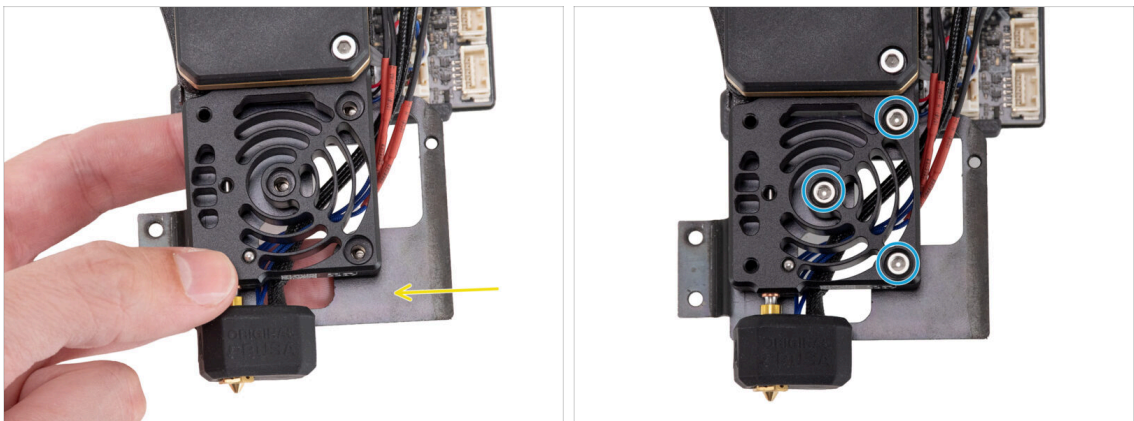
- For the following steps, please prepare:
- New extruder plate (1x)
- M3x6 spacer (3x) *make sure you are using the new part, **not the old one***
- M3x4rT screw (3x)

PASSO 21 Assembling the extruder plate



- ✚ Insert three M3x4rT countersunk screws into the extruder plate.
- ✚ From the opposite side, screw three M3x6 spacers onto the screws. Tighten them using a T10 screwdriver and a universal wrench.

PASSO 22 Installing the extruder plate



- ✚ From the underside of the heatsink, place the assembled extruder plate with the spacers facing the heatsink.
- ✚ Align the part with the holes. Make sure the orientation is correct by checking the two-holes side tab.
- ✚ Fix it using three M3x10 screws.

PASSO 23 Ventola di stampa: preparazione dei componenti



Per i seguenti passi prepara:

- Print fan (1x)
- New fan-case (1x)
- New fan-shroud (1x)
- M3x14 screw (3x)
- M3x8rT screw (1x)
- M3nS nut (1x)

PASSO 24 Assembling the print fan



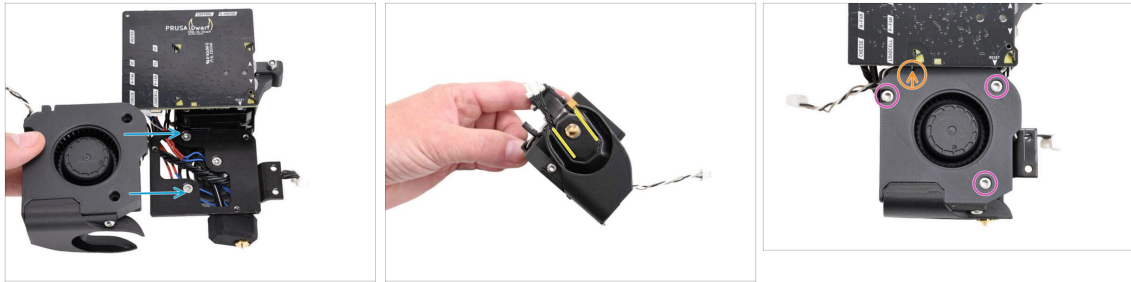
- Insert the print fan into the xls-fan-case.
- Guide the print fan cable through the cutout in the case.
- Route the cable in the cable channel.
- Insert one M3nS nut into the xls-fan-case.

PASSO 25 Mounting the fan shroud



- Align the **tab on the case** with the **slot on the fan-shroud**.
- Hook the fan-shroud onto the tab on the case.
- Close the fan-shroud.
- Secure it with one M3x8rT screw.

PASSO 26 Installazione della ventola di stampa



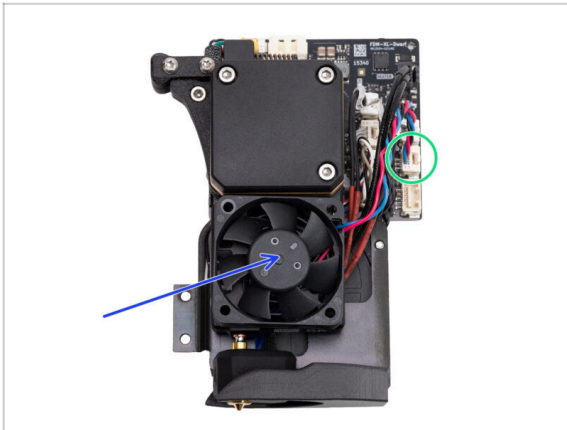
- 🔵 Turn the Nextruder so the rear side is facing up and align it with the print fan assembly.
- 🟡 Warning: Ensure the fan-shroud fits correctly onto the hotend. If needed, rotate the hotend to achieve proper alignment.
- 🟠 When inserting, make sure the cut-out aligns with the Nextruder sheet metal.
- 🟣 Fix the parts using three M3x14 screws.

PASSO 27 Securing the hotend



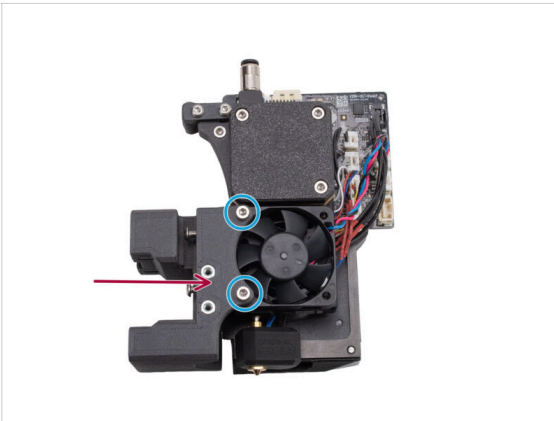
- 🟡 Finally adjust the hotend orientation so it matches the shape of the fan-shroud.
- 🔴 Keep the hotend in the same orientation and **push it fully in**.
⚠️ **The brass collar of the nozzle core must be barely visible.**
- 🔵 Secure it by fully tightening the set screw.
- 🟢 Connect the print fan cable to the second connector in the left row on the Dwarf board.

PASSO 28 Installing the heatsink fan



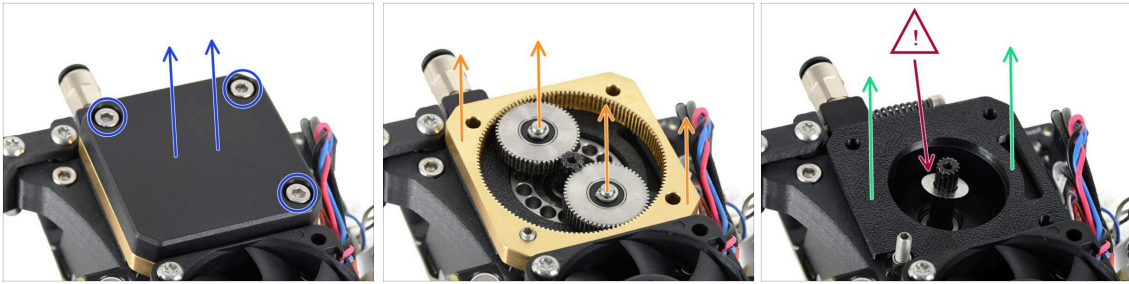
- Place the heatsink fan on the extruder plate so the cable is in the upper right corner.
- Plug the heatsink fan into the right connector in the right row on the Dwarf board.

PASSO 29 Installing the Nextruder body



- Place the Nextruder body on the heatsink fan
- Inserisci e fissa due viti M3x20rT.
- Turn the Nextruder around.
- From the opposite side of the Nextruder, secure the Nextruder body using two M3x40 screws.

PASSO 30 Removing the old main plate



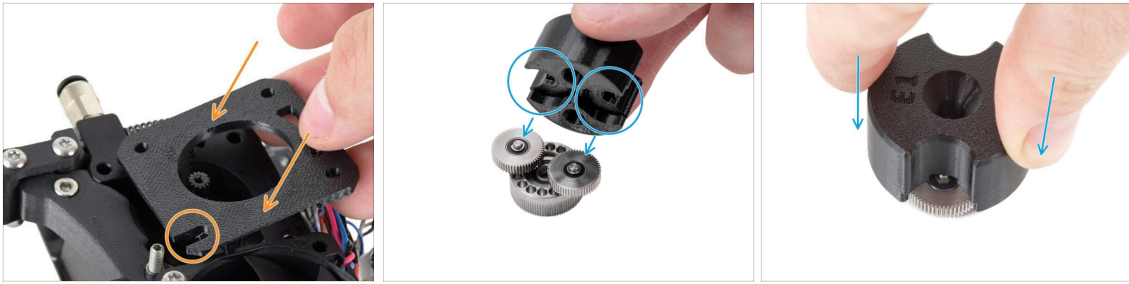
- Remove the three M3x25 screws and the Extruder front case.
- Carefully lift up the G assembly out of the old main plate.
- Remove the old main plate.
- ⚠ Locate the **metal washer** that should be between the gearbox and the motor. It might be stuck to the PG assembly.
- Riposiziona la rondella/spessore sull'albero del motore, nel caso in cui si sia staccata dall'albero.

PASSO 31 New main plate : parts preparation



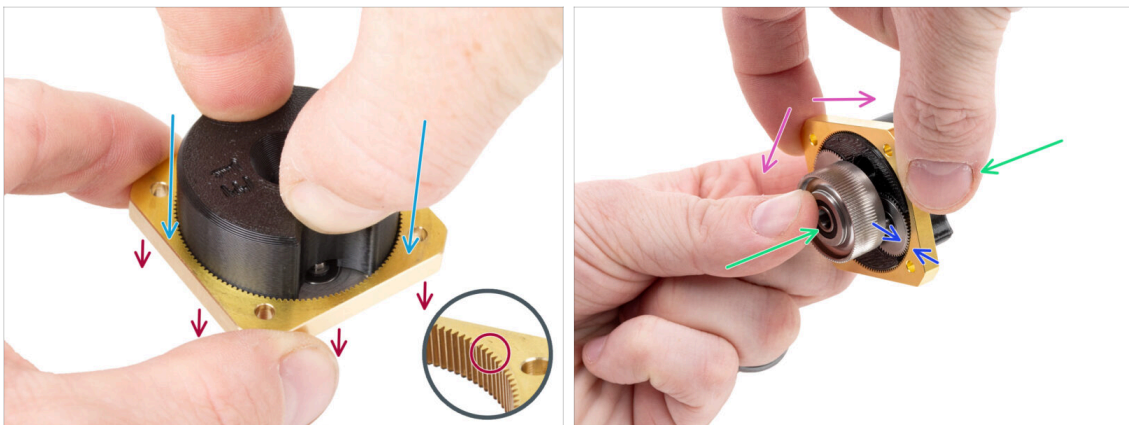
- Per i seguenti passi prepara:
- PG-assembly-adapter (1x)
- New main-plate (1x)

PASSO 32 Installing the new main plate



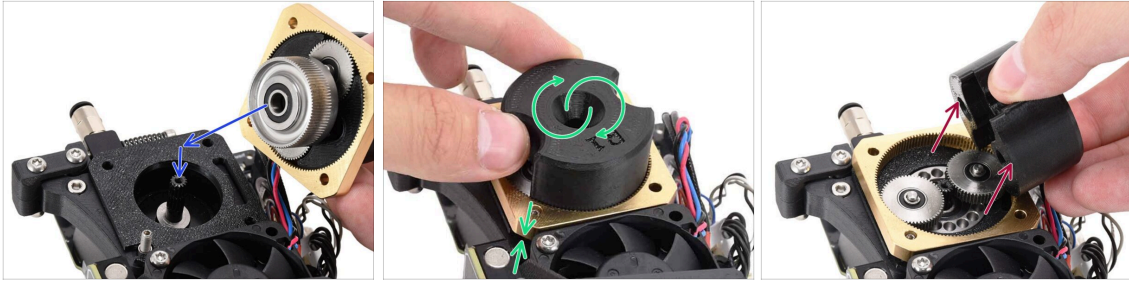
- 🟠 Posiziona la piastra principale sul dissipatore. Prendi nota dell'orientamento del componente. Usa il ritaglio come guida.
- 🔵 Monta l'adattatore PG-assembly-adapter sul gruppo PG. Nota le tasche per gli ingranaggi nell'adattatore.
- ⬛ Achieve better understanding and successful assembly by watching the video alongside the guide: prusa.io/PG-assembly.

PASSO 33 Assembling the PG ring



- ⚠️ **Non assemblare il riduttore senza l'adattatore PG-assembly-adapter.** Questo strumento serve a garantire che gli ingranaggi vengano montati correttamente.
- 🔵 Slide the PG-ring onto the 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.

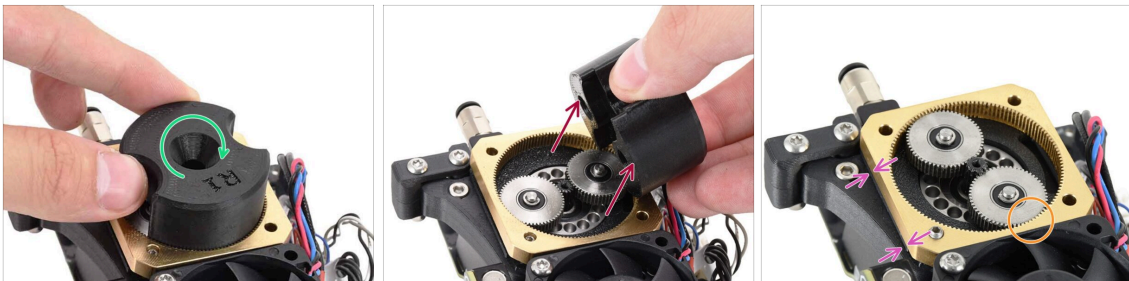
PASSO 34 Assembling the PG-assembly



 **Procedi con molta attenzione in questa fase.**

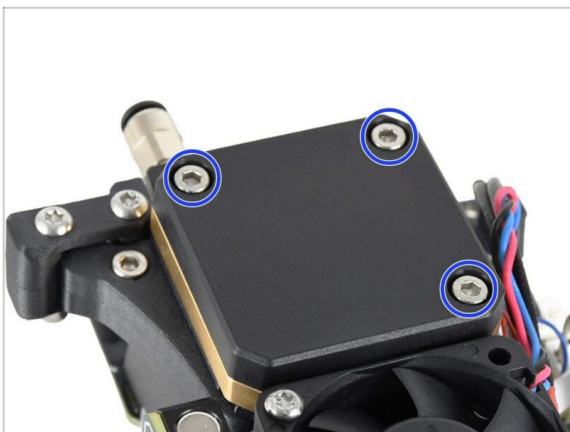
-  Maintain the position of the PG-assembly and attach it on to extruder motor shaft.
-  Very gently and freely wiggle with the whole PG assembly (PG-assembly-adapter, PG-assembly and PG-ring) until it drops down so that there is no gap between the assembly and the main-plate. Do not push on the assembly.
-  Remove the PG-assembly-adapter.

PASSO 35 Checking the PG-assembly



-  Ricollega nuovamente l'adattatore PG-assembly-adapter sul gruppo PG-assembly per verificare che tutte le parti siano posizionate correttamente.
-  Rotate with the PG-assembly-adapter. **The PG assembly must be easy to rotate without having to exert much force.**
-  Rimuovi l'adattatore PG. Non ti servirà più durante l'assemblaggio. Ti consigliamo di conservarlo per la manutenzione.
-  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.

PASSO 36 Coprire l'ingranaggio planetario



- Posiziona la copertura frontale sul riduttore e fissala con tre viti M3x25. **Non stringerle a fondo** in questo momento.

ⓘ The screws on the front case will be completely tightened during the self-test in the final chapter.

PASSO 37 New dwarf cover : parts preparation



● Per i seguenti passi prepara:

- New dwarf-cover-base (1x)
- New dwarf-cover-back (1x)
- New dwarf-cover-door (1x)
- M3x8bT screw (2x)
- M3x16 screw (1x)
- M3nS nut (4x)
- M3nN nut (1x)

PASSO 38 Assembling the new dwarf cover base



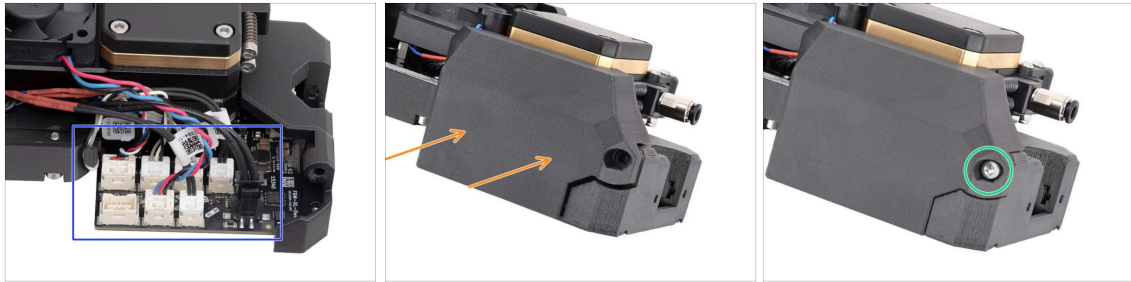
- Insert two M3nS nuts into the designated openings.
- Insert the other two M3nS nuts into these designated openings.
- Insert the M3nN nut into the dwarf cover base side.
- ❗ We recommend using the screw pulling technique.

PASSO 39 Coprire la scheda Dwarf



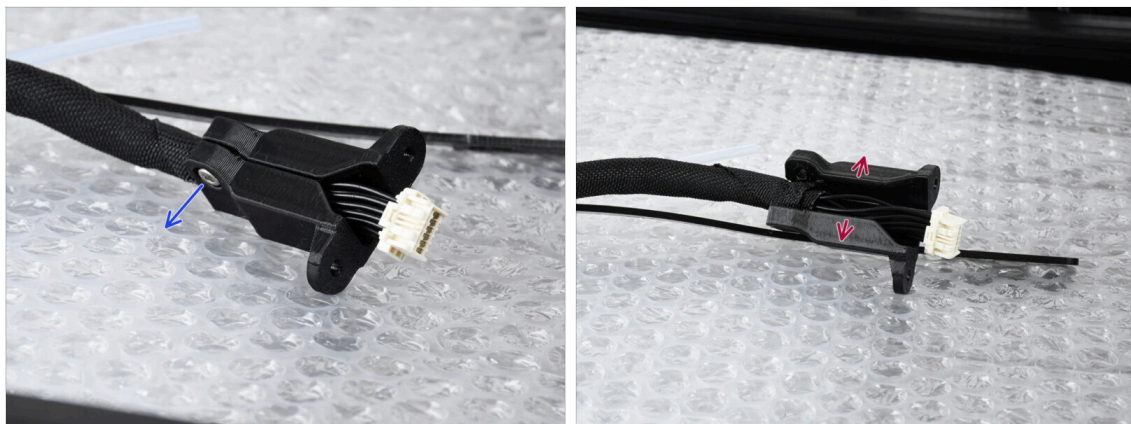
- In the correct orientation, slide the dwarf-cover-base onto the Dwarf board. Insert it into the rails.
- Place the dwarf-cover-back onto the Dwarf board, slide it upward, and align the holes.
- Fix it using two M3x6rT screws.

PASSO 40 Covering the Dwarf cables



- Before closing the electronics cover, ensure all cables are correctly connected and not protruding from the compartment.
- Attach the dwarf-cover-door to the Nextruder and ensure it sits flush all around.
- Secure it with an M3x16 screw. **Do not overtighten it**; the cover must remain easy to open.

PASSO 41 Removing the old dwarf cover connector



- Remove the M3x10 screw from the top of the dwarf cover connector.
- Remove the dwarf cover connector by pulling the sides of it apart.

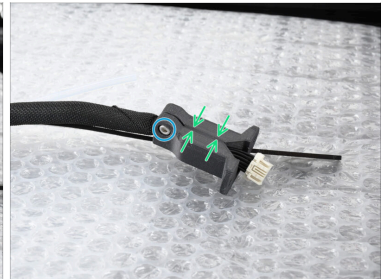
PASSO 42 New main cable assembly: parts preparation



● Per i seguenti passi prepara:

- New cable-clip-click (5x)
- New dwarf cover connector
- M3x10 screw (3x)
- M3nN nut (1x)

PASSO 43 Installing the new dwarf cover connector



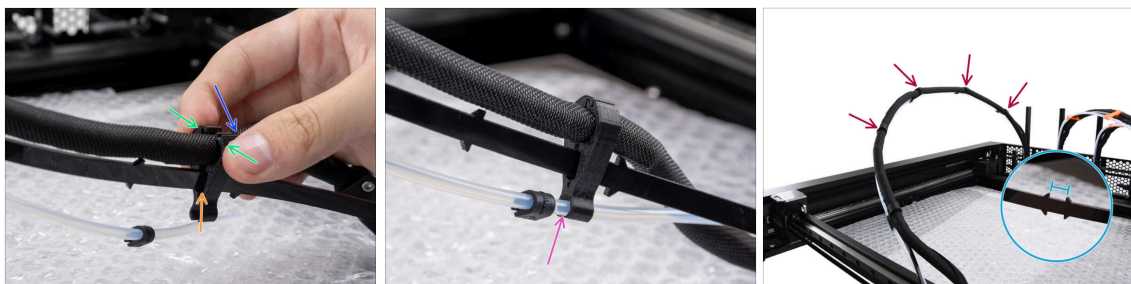
- Insert the M3nN nut into the hexagonal opening of the dwarf connector
- Insert the main cable into the Dwarf cover connector.
⚠ Pay attention to the **orientation** of the plastic part.
- Leave a little bit of extra length on the main cable outside the dwarf cover connector.
- Carefully push the two halves of the Dwarf cover connector together.
- ⚠ **Pay close attention not to pinch any cables between the plastic parts before you tighten the screw!**
- Secure the parts together by tightening the M3x10 screw.

PASSO 44 Removing the old cable-clip-click



- Pull the PTFE tube out of the cable-clip-click
- Open the clip by pushing on each side of the clip in opposite directions
- Remove the main cable from the cable-clip-click
- Remove the old cable-clip-click

PASSO 45 Installing the new cable-clip-click



- Attach the new cable-clip-click onto the flexible plate.
- Insert the main cable into the cable-clip-click.
- Close the clip by pressing both sides together until they snap into place.
- Push the PTFE tube into the designated groove on the cable-clip-click.
- Repeat the entire removal and installation procedure for the four remaining clips. Always replace them one at a time.
- Always install the cable-clip-click inside the notches on the flexible plate.

PASSO 46 Connecting the tool



- Place the Nextruder assembly back onto the printer box.
- Connect the main cable to the Nextruder.
- Secure the connector with two M3x10 screws.
- Fully insert the PTFE tube into the fitting as far as it will go.
- Hook the flexible plate onto the pre-installed screws on the tool changer.
- ⚠ **Make sure the flexible plate is not twisted.**
- Gently pull the flexible plate to properly hook it onto the screws.
- Fully tighten the screws.

PASSO 47 Removing the Tool dock assembly



- Locate the old tool dock at the end of the Nextruder cables.
- **Carefully** cut the zip ties on the dock-cable-router.
- ⚠ **Pay close attention not to cut any cables!**
- Put the Nextruder cable aside and pull the PTFE tube completely out of the dock-cable-router.
- Remove the two M3x14 screws from the dock-cable-router to free the flexible plate.

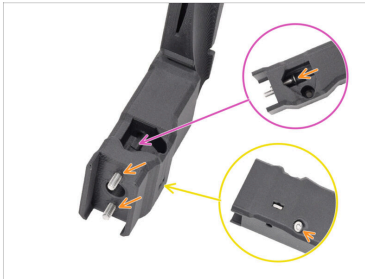
PASSO 48 New Tool dock assembly: parts preparation



● Per i seguenti passi prepara:

- New dock-cable-router (1x)
- Dock cable router single tool adapter (1x)
- M3Nn nut (4x)
- M3x12bT screw (2x)
- M3x14 screw (1x)

PASSO 49 Assembling the new dock-cable-router I.



- Insert two M3nN nuts into the two slots.

⚠ We recommend using the screw pulling technique.

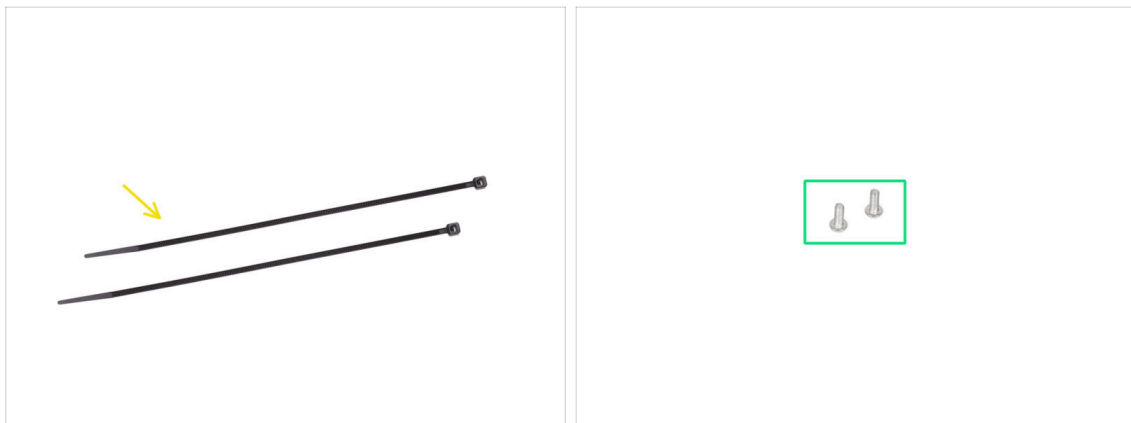
- Push two M3x12bT screws through the front of the new dock-cable-router:
 - Insert the upper screw through the hole on the top.
 - Insert the lower screw through the hole on the side.
- Insert the two remaining M3nN nuts into the two slots on the Dock cable router single tool adapter.

PASSO 50 Assembling the new dock-cable-router II.



- Place a M3x14 screw into the middle hole on the front part of the dock-cable-router so it is pointing out.
- Place the Dock cable router single tool adapter on the front part of the dock-cable-router so the holes align with the positioned screws.
- Fully tighten the two M3x12bT screws using the TX8 torx key. The openings are on the other side of the dock-cable-router.

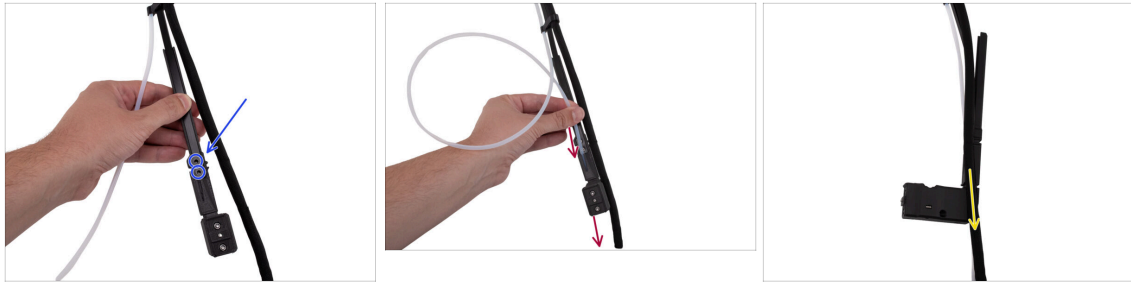
PASSO 51 New Tool dock instalation: parts preparation



Per i seguenti passi prepara:

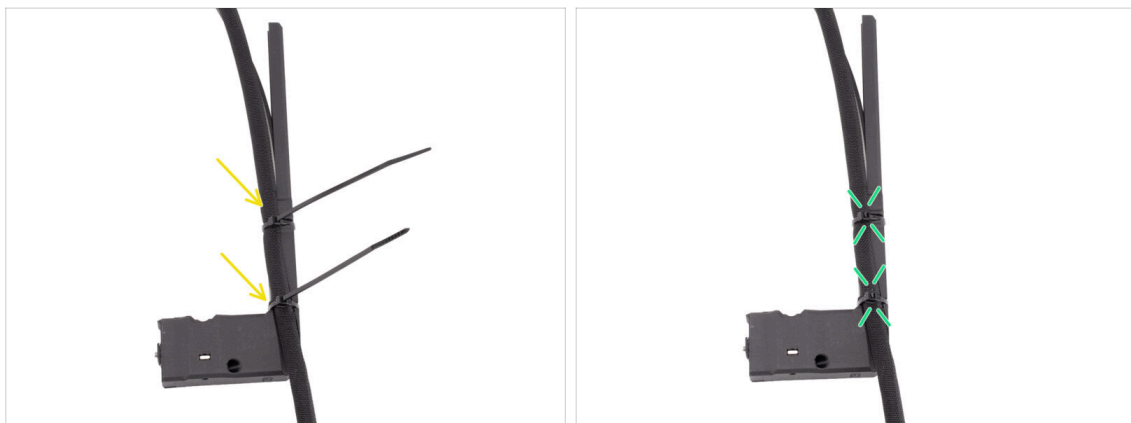
- Zip ties (2 x)
- M3x8rT screw (2x)

PASSO 52 Assembling the Tool dock assembly I.



-  Place the flexible plate into the groove of the dock-cable-router and secure it with two M3x8rT screws.
-  Insert the PTFE tube through the opening on the dock-cable-router.
-  Route the main cable through the groove on the dock-cable-router.

PASSO 53 Assembling the new Tool dock assembly II.



-  Secure the main cable with two zip ties.
-  Cut off the excess plastic.

PASSO 54 It's done

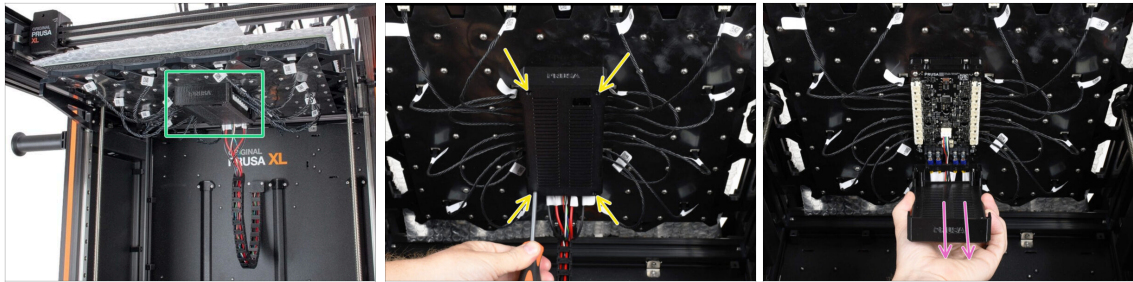


- Congratulations! You have finished the upgrade of the Tool head.
- Set the Nextruder aside for now. We will attach it to the printer in a later chapter.
- Let's continue to the next chapter: **Heatbed upgrade.**

3. Heatbed upgrade

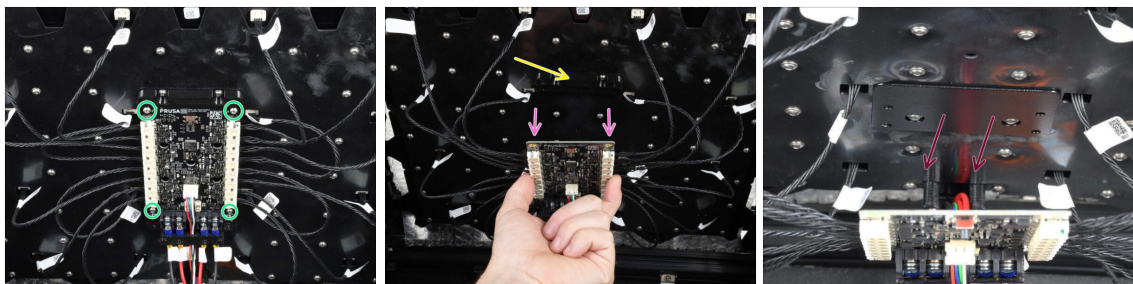


PASSO 1 Uncovering the heatbed controller



- 🟢 Locate the plastic electronics box on the underside of the heatbed.
- 🟡 Using the T10 screwdriver, unscrew four M3x20rT screws and remove the cover.
- 🟡 Remove the electronics cover.
- ⚠️ **Avoid damaging the electronics.**

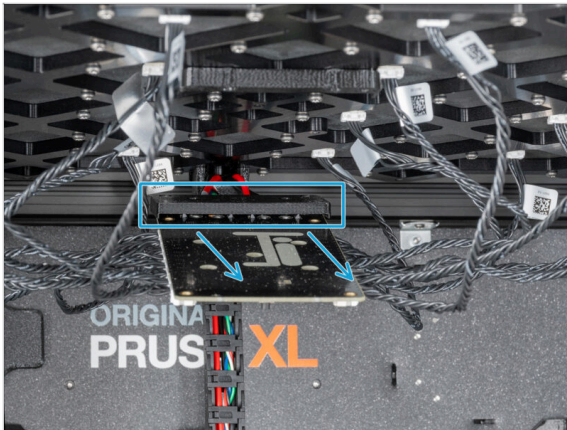
PASSO 2 Rimuovere la scheda del piano modulare



- 🟢 Using the T10 screwdriver, unscrew four M3x10rT screws securing the modular bed board.
- 🟡 Carefully release the modular bed board and let it hang freely on the cables of the individual heatbed tiles.
- 🟡 Remove the XL-bed-controller-mount-front from either the underside of the heatbed or the electronics board.
- 🟡 Remove the Modular Bed PCB shield from either the underside of the heatbed or the electronics board. **Keep it aside, as you will reuse it later.**

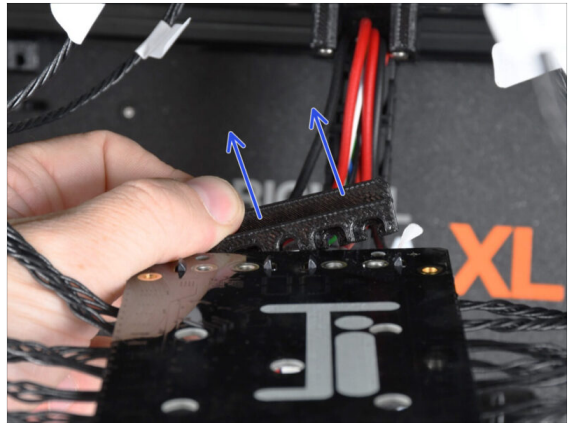
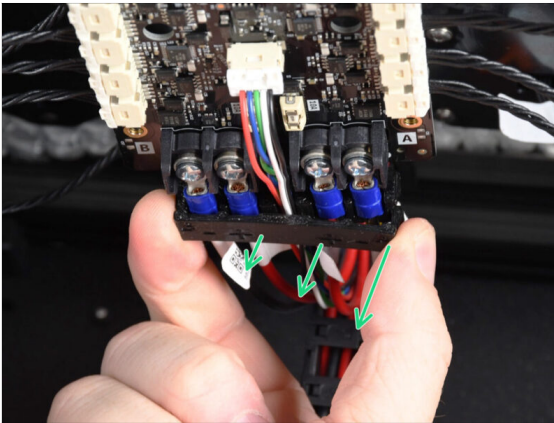
📌 Note: The Modular Bed PCB shield may not be present on all printers, as it was added in a later hardware update. If you do not have it, please contact our Tech Support.

PASSO 3 Removing the bed-controller-mount-rear



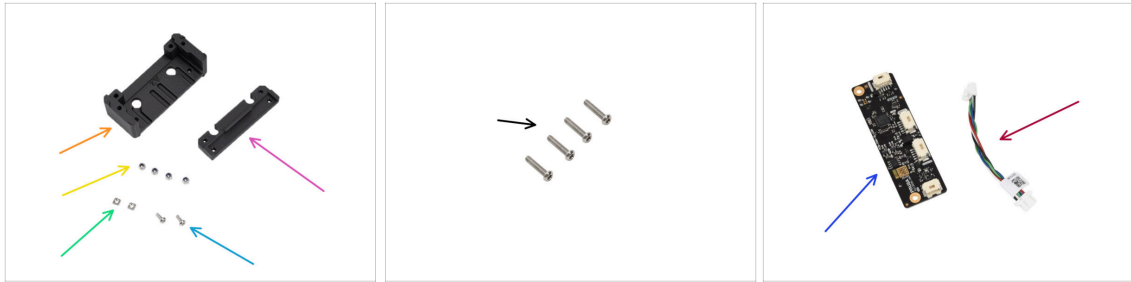
- Remove the XL-bed-controller-mount-rear (printed part) from the top of the board.

PASSO 4 Unlatching the cables



- On the underside of the board, pull the lower part of the power cable guide.
- From the top side, remove the upper part of the cable guide.

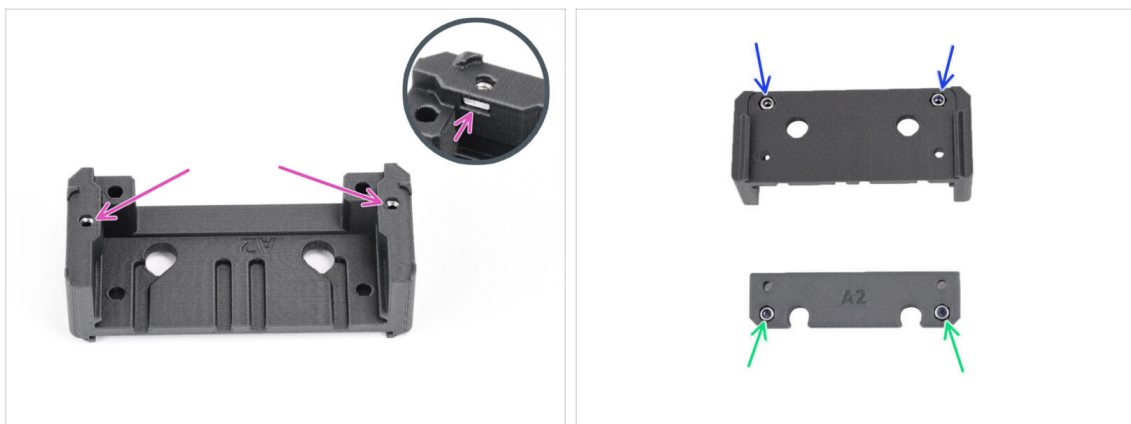
PASSO 5 New bed controller mounts: parts preparation



Per i seguenti passi prepara:

- New bed-controller-mount-rear (1x)
- New bed-controller-mount-front (1x)
- M3nN nut (4x)
- M3nS nut (2x)
- M3x8rT screw (2x)
- M3x12rT screw (4x)
- XL-CAN board (1x)
- XLS Modular bed CAN cable (1x)

PASSO 6 Assembling the bed-controller-mounts I.



- Insert two M3nS nuts into the bed-controller-mount rear from the inner sides.
- Turn the bed-controller-mount-rear over and insert two M3nN nuts.
- Insert two M3nN nuts into the bed-controller-mount-front.

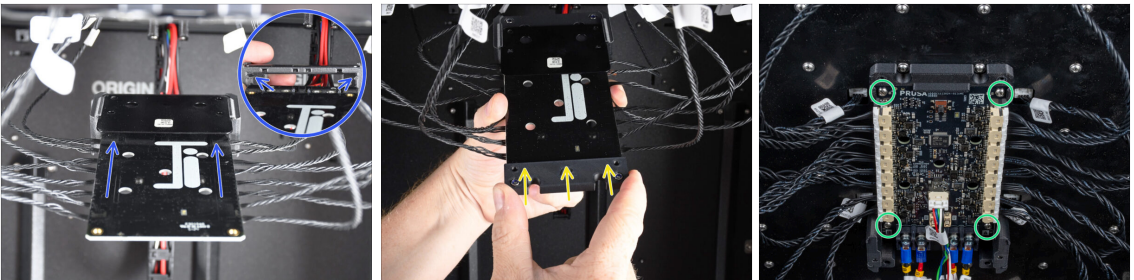
PASSO 7 Assembling the bed-controller-mounts II.



The Modular Bed PCB shield is reused from the printer.

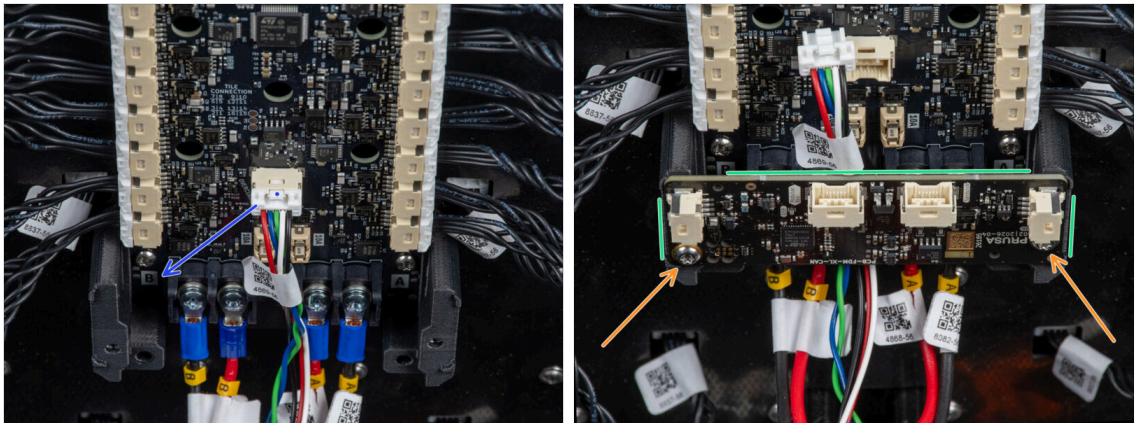
- Insert the Modular Bed PCB shield into the slots in the bed-controller-mount-rear.
- Insert it so far that the holes align.

PASSO 8 Attaching the bed-controller-mount-rear



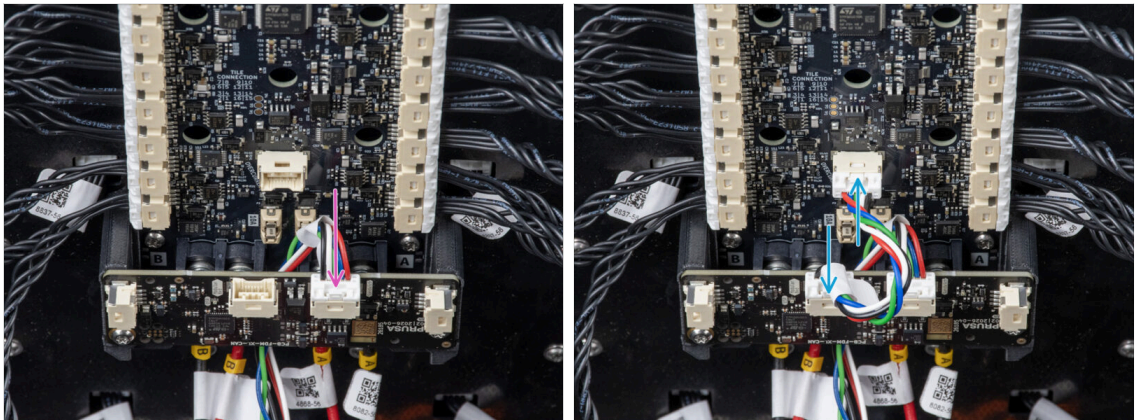
- Slide the bed-controller-mount-rear onto the Modular Bed Controller Board using the grooves, and push it in fully until seated.
- Slide the bed-controller-mount-front onto the front side of the Modular bed controller board.
- Position the Modular Bed Controller assembly at the center of the underside of the heatbed and secure it with four M3x12rT screws.

PASSO 9 Mounting the XL-CAN board



- Disconnect the Modular bed controller cable.
- ⚠ Be careful: the connector has a **safety latch** that must be pressed while disconnecting.
- Position the XL-CAN board onto the bed-controller-mount-rear and align it.
- Secure it with two M3x8rT screws.

PASSO 10 Connecting the XL-CAN cables



- Connect the Modular Bed Controller cable to the **right slot**.
- Connect the Modular Bed Controller board to the XL-CAN board using the XLS-ModularBed-CAN cable and the marked connectors.

PASSO 11 Modular bed controller fan: parts preparation



● Per i seguenti passi prepara:

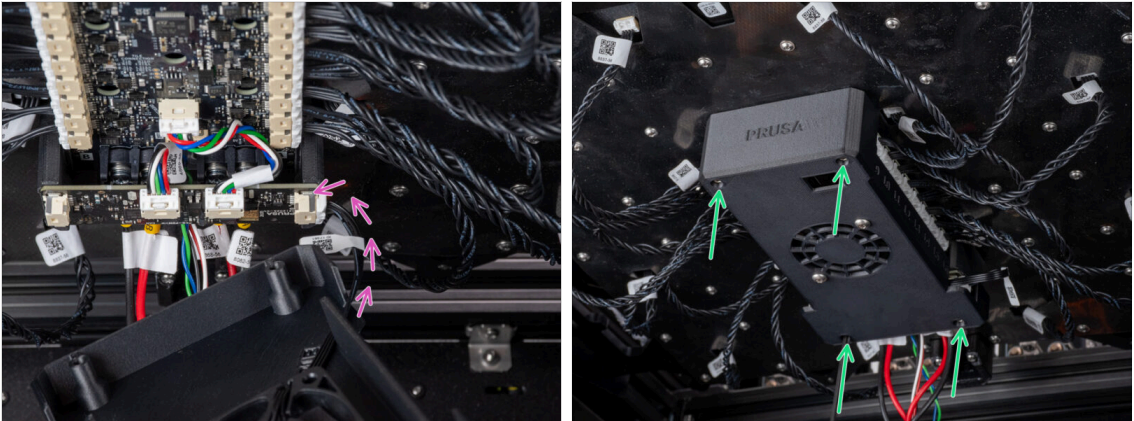
- New bed-controller-case (1x)
- Bed controller fan (1x)
- M4x10r screws (2x)
- M3x30 screws (4x)

PASSO 12 Installing the bed controller fan



- Position the fan on the inner side of the XLS-bed-modular-case.
- **Ensure correct orientation:**
 - The sticker faces up.
 - The fan cable is routed to the left toward the rear (lower) side.
- Hold the fan in place, flip the assembly over, and fasten it with two M4x10r screws.

PASSO 13 Covering the Modular bed controller



- ◆ Connect the fan to the right connector on the XL-CAN board.
- ◆ Cover the Modular bed controller with the new bed-controller-case and secure it with four M3x30 screws.

PASSO 14 Gruppo raschietto ugello: preparazione dei componenti



● For the following steps, please prepare:

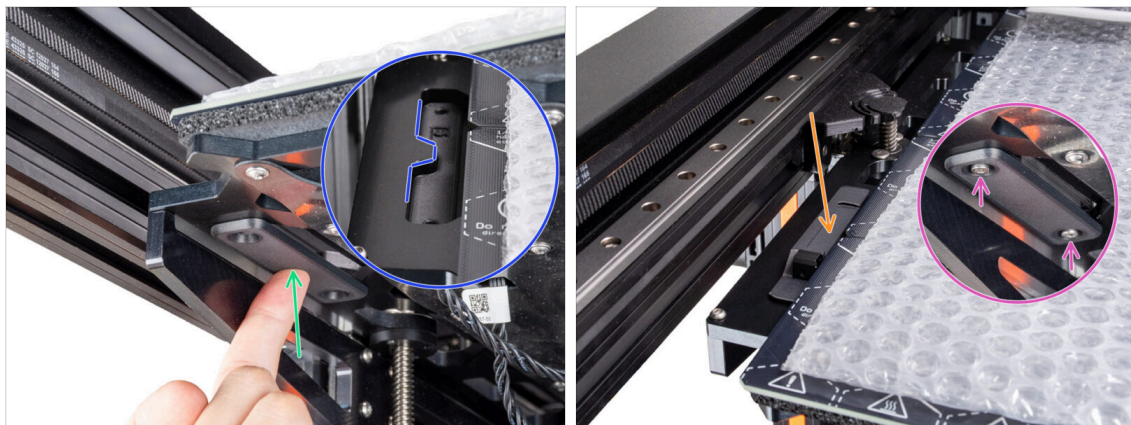
- ◆ Bed-wiper-top (1x)
- ◆ Bed-wiper-bottom (1x)
- ◆ Silicone nozzle brush (1x)
- ◆ Expansion joint (1x)
- ◆ M3nS nut (2x)
- ◆ M3x6 screw (2x)
- ◆ M3x6r screw (1x)

PASSO 15 Assemblare il raschietto dell'ugello



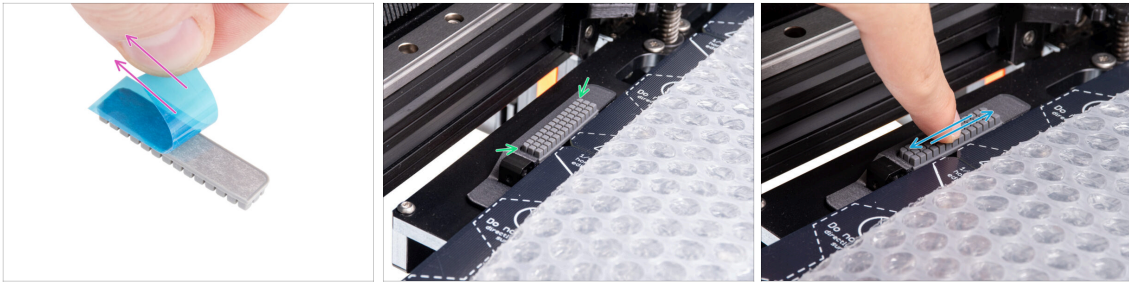
- Insert the M3x6r screw into the expansion joint with the screw head first.
- Insert a 2.0 mm Allen key through the threaded hole to reach the screw.
- Attach the expansion joint to the Bed-wiper-top and tighten the screw. Do not overtighten it.
- Insert the two M3nS nuts into the designated holes.

PASSO 16 Mounting the nozzle wiper assembly



- Insert the bed-wiper-bottom into the designated space of the bed frame.
- Make sure it is aligned correctly matching the frame's shape.
- Place the bed-wiper-top in the designated space on top of the frame.
- Secure the two bed wiper parts together with two M3x6 screws.

PASSO 17 Installing the silicone wiper



- ◆ Peel off the protective layer from the nozzle wiper pad.
- ① The pad is adhesive underneath the protective layer. **Avoid touching the adhesive surface.**
- ◆ Insert the nozzle wiper pad into the matching recess in the nozzle wiper assembly.
- ◆ Run your finger over the entire surface of the nozzle wiper pad several times to ensure it is evenly adhered and fully seated.

PASSO 18 It's done

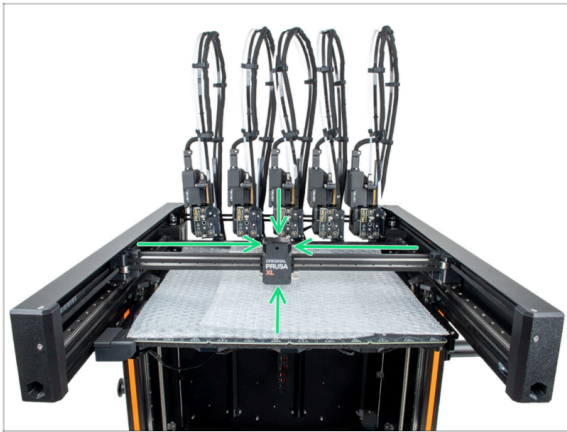


- ◆ Confronta l'aspetto finale del tutto con l'immagine.
- ◆ Let's continue to the next chapter: **Printed parts and belts upgrade.**

4. Printed parts and back cover upgrade



PASSO 1 Printer preparation



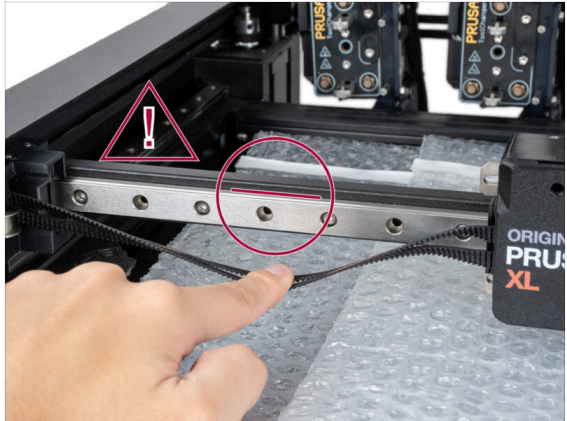
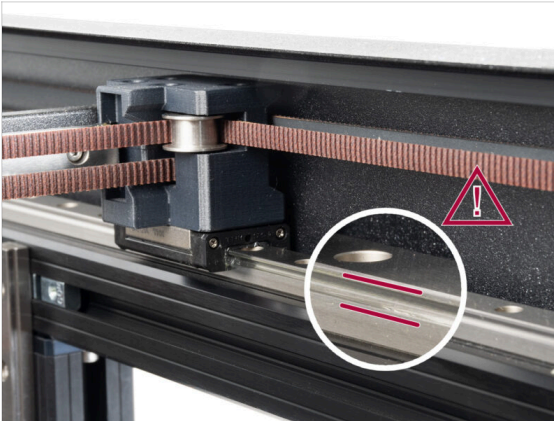
- Move the x-carriage into the center of the printer frame.

PASSO 2 Releasing the belts



- On the front side of the printer:
- Using a 2.5mm Allen key, release the M3 screw holding the right CoreXY tensioner. Do not remove the screw completely.
- Using a 2.5mm Allen key, release the M3 screw holding the left CoreXY tensioner. Do not remove the screw completely.
- Gently tension the belt with your finger. If the belt has a similar degree of looseness as shown in the picture, proceed to the next step.

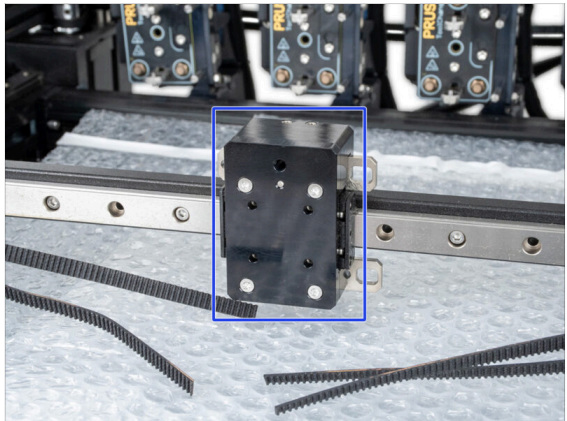
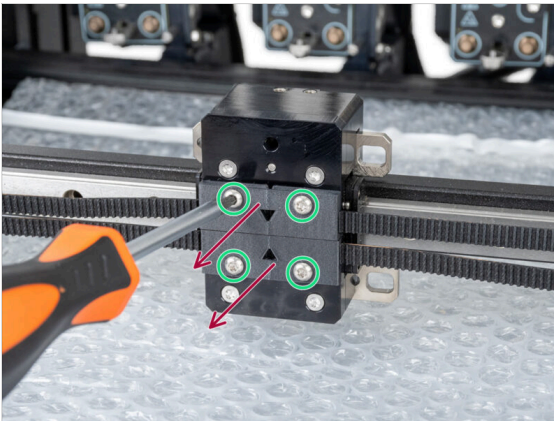
PASSO 3 CAUTION: Lubricant Handling



⚠ 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 mainly in the linear rail channels on the linear sides.

PASSO 4 Belt clamps removing



◆ Using the T10 Torx screwdriver, remove four M3x12rT screws holding the belt-clamps.

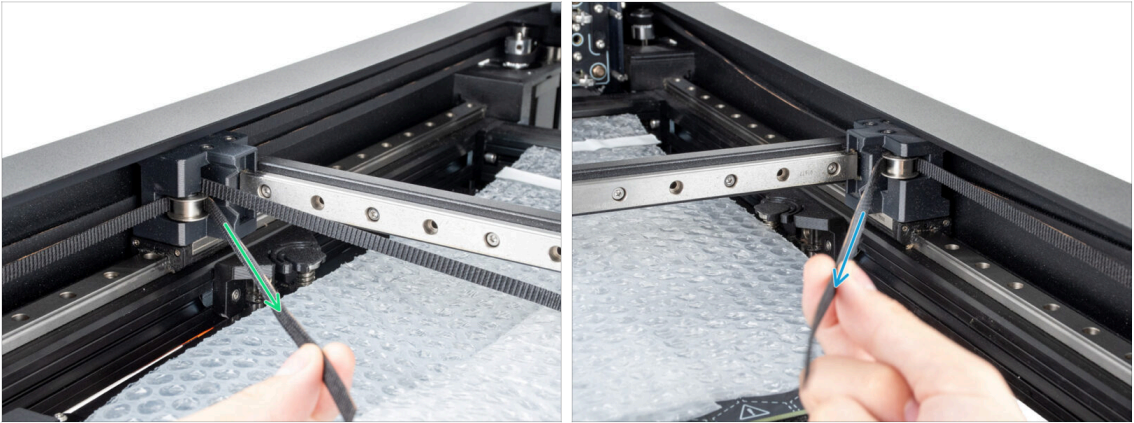
📌 Keep the screws aside

◆ Remove the belt clamps.

ⓘ You can throw them away.

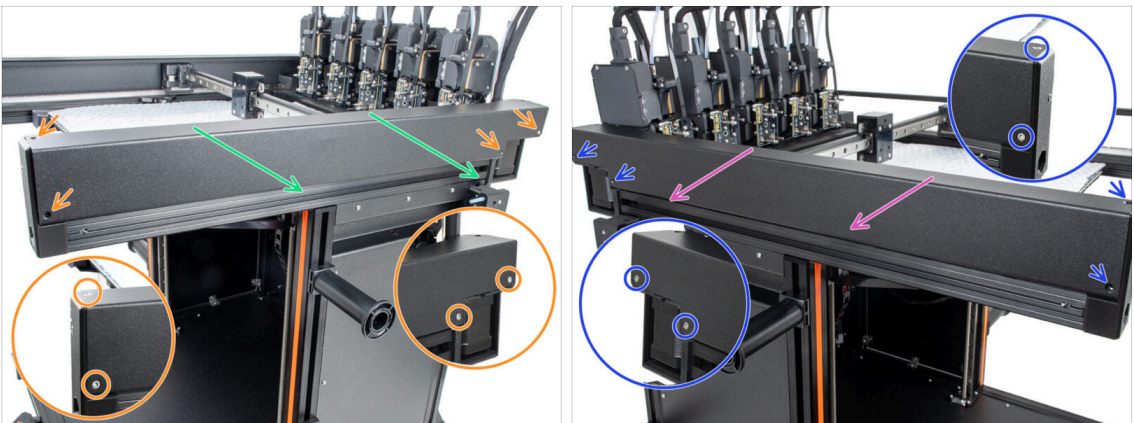
◆ With the belt-clamps removed, proceed to the next step.

PASSO 5 Belts removing



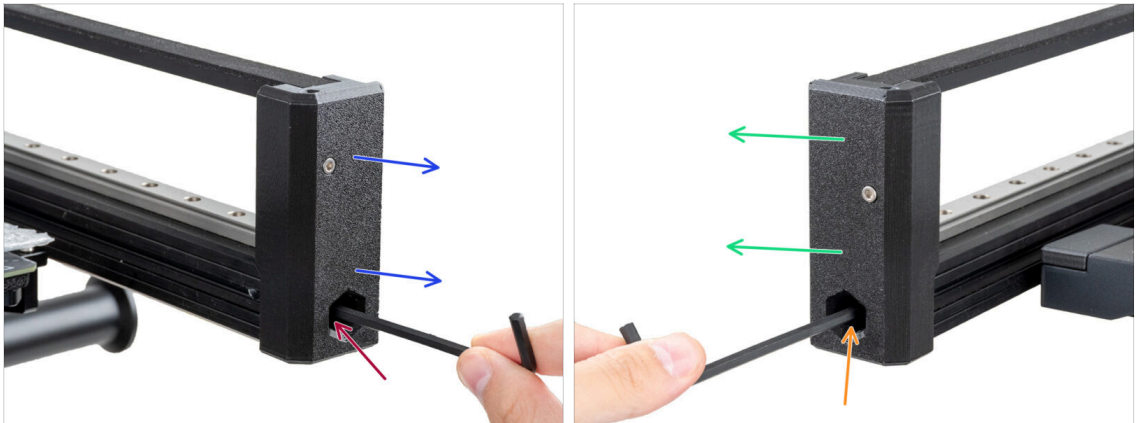
- Grasp the **bottom belt** on the **left side** of the CoreXY and pull the belt out of the printer.
- Afferra la **cinghia superiore** sul **lato destro** del CoreXY ed estrai la cinghia dalla stampante.
- Throw old belts away!

PASSO 6 Removing the side metal plates



- Using the T10 Torx screwdriver, remove four M3x8bT screws from the right side metal plate.
- Carefully slide the right side metal plate out of the printer's frame.
- Turn to the other side.
- Using the T10 Torx screwdriver, remove four M3x8bT screws from the left side metal plate.
- Carefully slide the left side metal plate out of the printer's frame.

PASSO 7 Removing CoreXY front parts



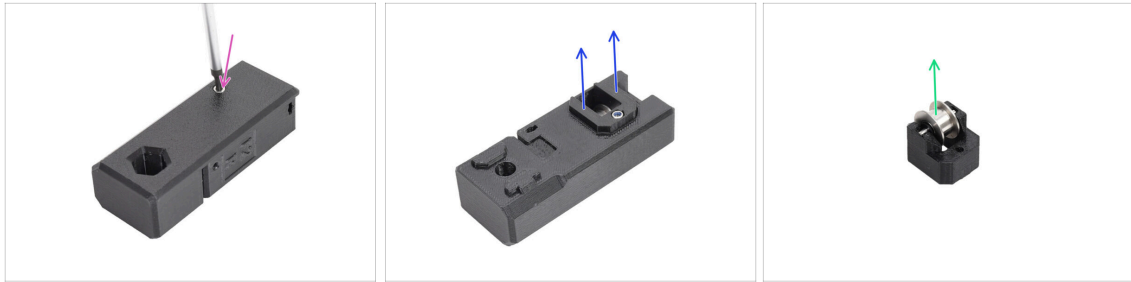
- Using a 4.0mm Allen key, release the M8x16 screw holding the CoreXY front right .
- Remove the CoreXY front right.
- Using a 4.0mm Allen key, release the M8x16 screw holding the CoreXY front left.
- Remove the CoreXY front left.

PASSO 8 Disassembling the CoreXY front left assembly



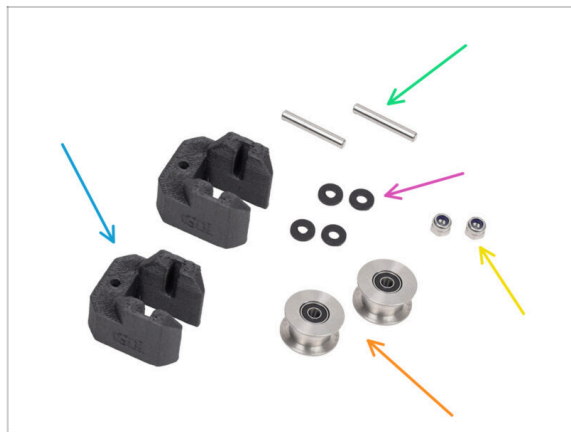
- Remove the M3x22 screw from the CoreXY front left.
- Remove the CoreXY tensioner assembly by pulling it up.
- Remove the pin with pulley and washers from the CoreXY tensioner by sliding it up.

PASSO 9 Disassembling the CoreXY front right assembly



- Remove the M3x22 screw from the CoreXY front right.
- Remove the CoreXY tensioner assembly by pulling it up.
- Remove the pin with pulley and washers from the CoreXY tensioner by sliding it up.

PASSO 10 New CoreXY tensioner assembly: parts preparation



Per i seguenti passi prepara:

- New CoreXY tensioner (2x)
- Pin H8 2.9x20 (2x)
- GT2-20 pulley (2x)
- Washer 3x7x1 (4x)
- M3nN nut (2x)

PASSO 11 Assembling the new CoreXY tensioner



- Slide the pulley onto the pin.
- Slide two washer on each side of the pulley.
- Push the whole assembly into the slots on the new CoreXY tensioner.
- Insert the M3nN nut into the designated hexagonal slot.
- Repeat this for the other CoreXY tensioner.

PASSO 12 New CoreXY front left: parts preparation



● Per i seguenti passi prepara:

- New CoreXY front left (1x)
- M8x16 screw (1x)
- M3x22 screw (1x)
- M3nS nut (2x)

PASSO 13 Assembling the new CoreXY front left



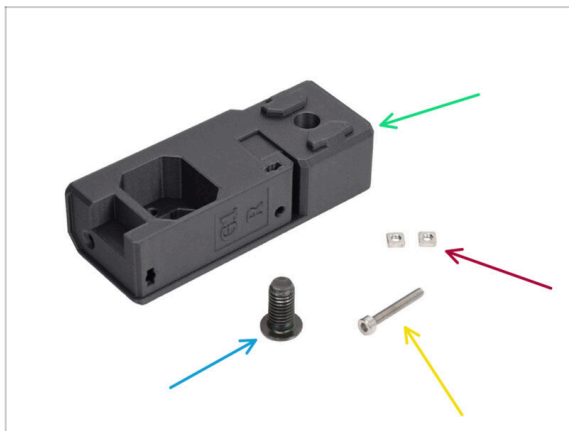
- Insert two M3nS nuts into the slots on the CoreXY front left **as far as possible**.
- Insert the CoreXY tensioner into the designated space in the CoreXY front left.
⚠ Watch out for the **correct orientation** of the CoreXY tensioner - it has to fully slide into the CoreXY front left.
- Turn the part around and insert the M3x22 screw. **Do not tighten it fully**, just few turns are enough.

PASSO 14 Installing the CoreXY front left



- Place the CoreXY front left over the frame so the notches on the printed part align with the slots on the metal frame.
- Insert the end of the light bar into the notch on the CoreXY front left.
- Secure the parts together using an M8x16 screw and the 4.0mm Allen key.

PASSO 15 New CoreXY front right: parts preparation



For the following steps, please prepare:

- New CoreXY front right (1x)
- M8x16 screw (1x)
- M3x22 screw (1x)
- M3nS nut (2x)

PASSO 16 Assembling the new CoreXY front right



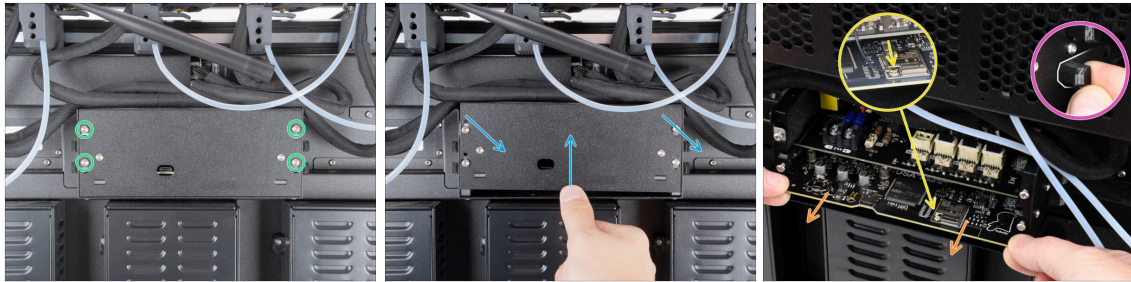
- ✦ Insert two M3nS nuts into the slots on the CoreXY front right as far as possible.
- ✦ Insert the other CoreXY tensioner into the designated space in the CoreXY front right.
- ⚠ Watch out for the **correct orientation** of the CoreXY tensioner. It has to fully slide into the CoreXY front right.
- ✦ Turn the part around and insert the M3x22 screw. Do not tighten it fully, just few turns are enough.

PASSO 17 Installing the CoreXY front right



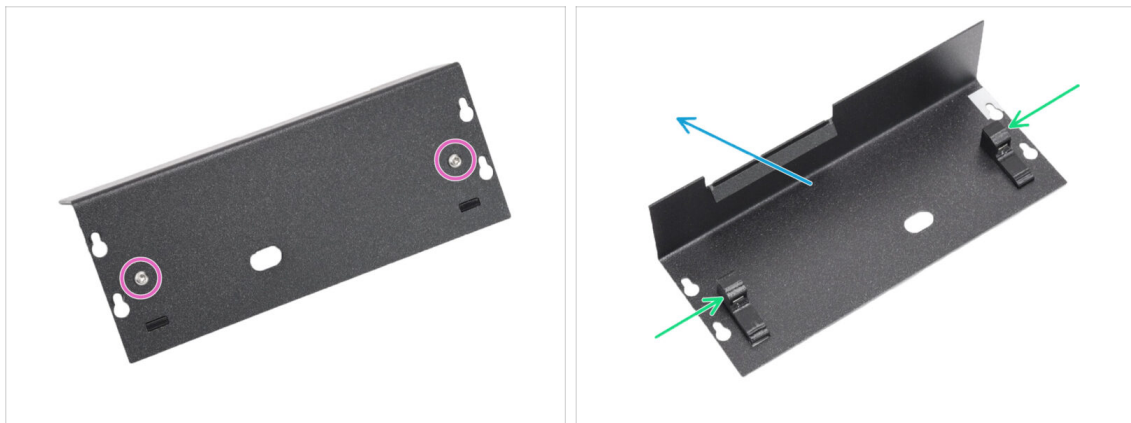
- ✦ Place the CoreXY front right over the frame so the notches on the printed part align with the slots on the metal frame.
- ✦ Insert the end of the light bar into the notch on the CoreXY front left.
- ✦ Secure the parts together using an M8x16 screw and the 4.0mm Allen key.

PASSO 18 Uncovering the electronics I.



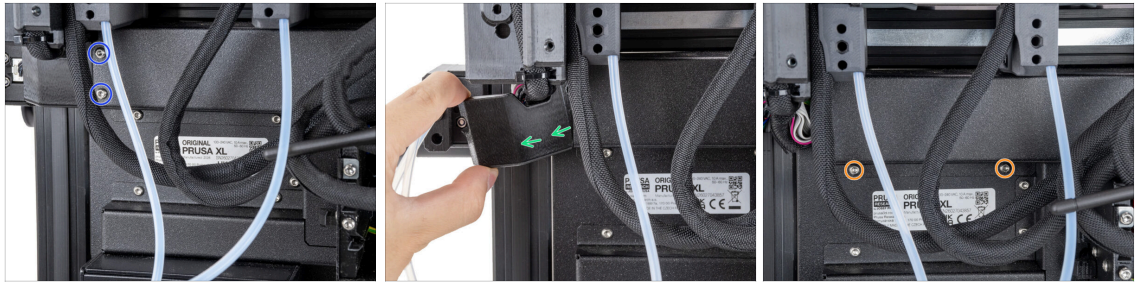
- Release, but do not remove four screws securing the cover.
- Slide the cover up and remove it.
- Disconnect the Wi-Fi cable from the Wi-Fi connector if needed.
- Locate the ejectors on both sides of the electronics box. From these, locate the upper pair.
- Fai scivolare fuori lo XLSplitter. Spingi gli estrattori in modo che la scheda si scollegi dalla scheda Sandwich e scivoli fuori utilizzando le guide laterali.
- ⚠ **Touch any electronic board by its edges. Avoid damaging the board components.**
- 📌 Place it on safe anti-static surface, such as the anti-static bubble wrap from the XL-CAN board packaging.

PASSO 19 Disassembling the cover



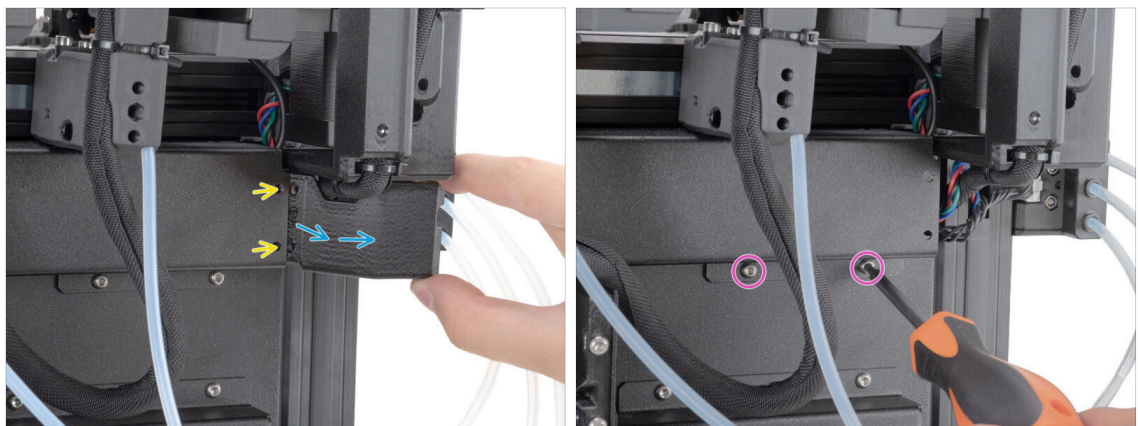
- Release and remove two screw from the electronics cover.
- From the opposite side of the cover, remove two electronics-case-holders.
- 📌 Each part contains an embedded M3nS nut. Make sure the nut does not fall out, as the part will be reused later.
- Discard the electronics cover. It will no longer be needed.

PASSO 20 Uncovering the electronics II.



- Remove two M3x8rT screws from the left side on the back of the printer.
- Slide the cable cover cap left out of the metal electronics cover.
- ⚠ **Be careful not to damage any cables!**
- Remove two M3x5rT located at the bottom of the metal electronics cover.

PASSO 21 Uncovering the electronics III.



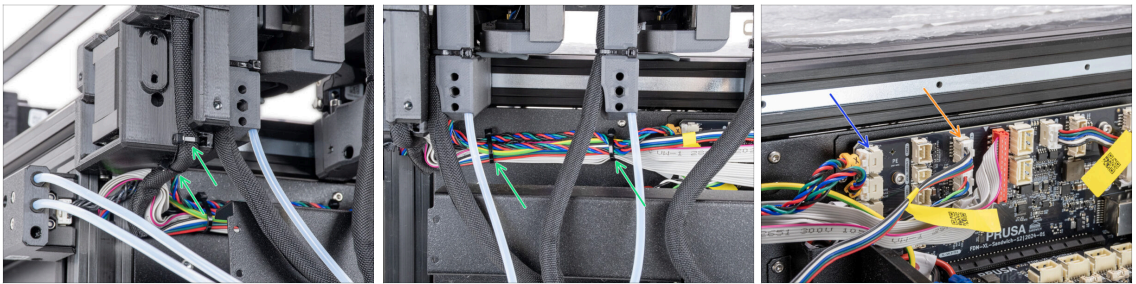
- Remove the other two M3x8rT screws from the right side on the back of the printer.
- Slide the cable cover cap right out of the metal electronics cover.
- ⚠ **Be careful not to damage any cables!**
- Remove two M3x5rT located at the bottom of the metal electronics cover.

PASSO 22 Uncovering the electronics IV.



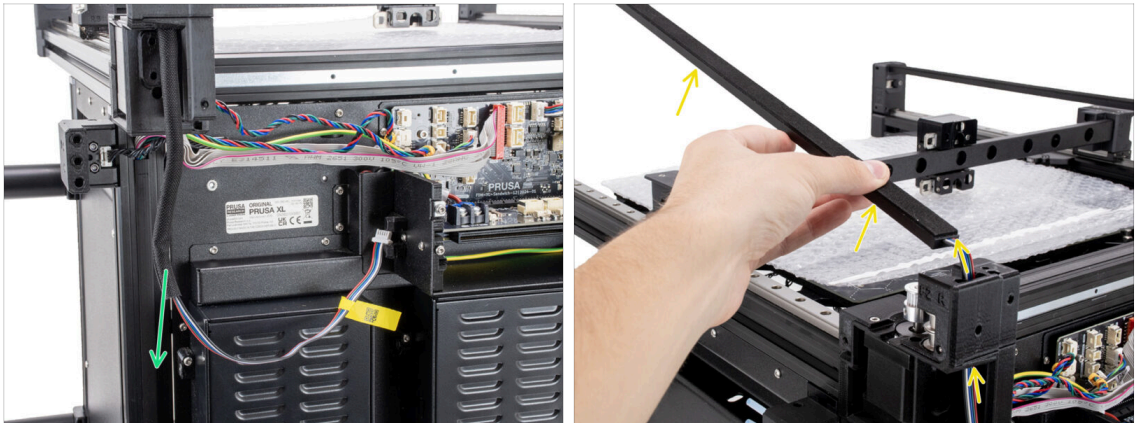
- 🔴 Move the whole back metal plate back and down the printer.
- 🔵 Just enough to reveal the electronics.

PASSO 23 Freeing the cables: left side



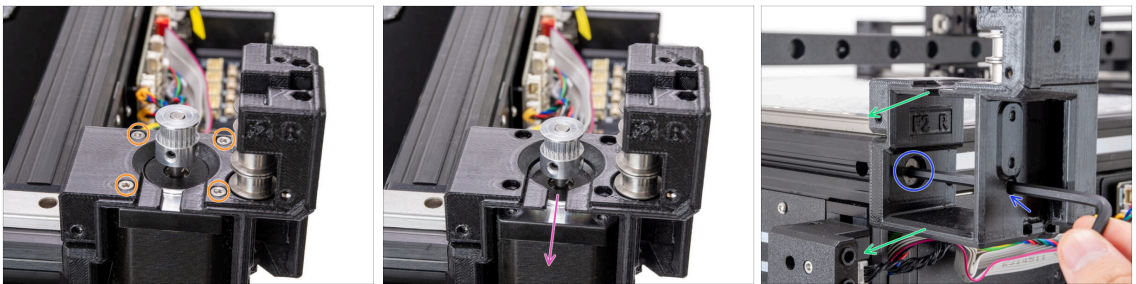
- 🟢 Cut all four zipties on the left side to free the cables.
 - 🟡 Unplug the XY motor cable.
 - 🟠 Unplug the LED bar cable.
- ⚠️ **Be careful:** the connectors have a **safety latch** that **must be pressed while disconnecting**.

PASSO 24 Removing the LED bar



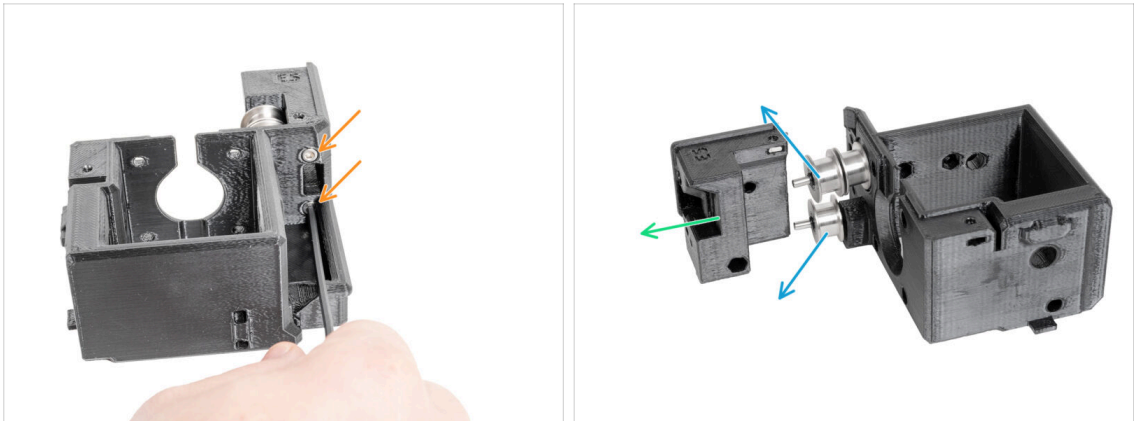
- Remove the textile sleeve from the LED bar cable.
- Remove the LED bar by lifting it up and carefully pulling the cable through the CoreXY back right assembly.

PASSO 25 Removing the CoreXY back right assembly



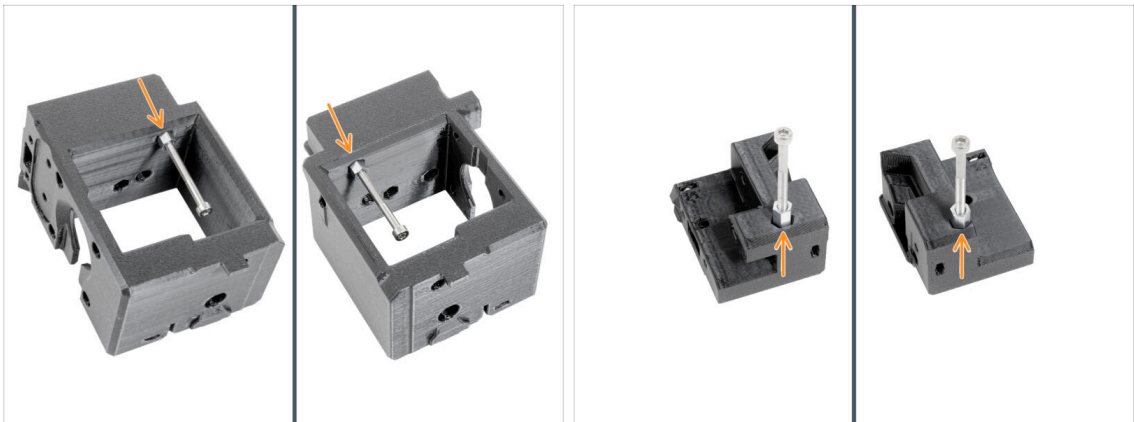
- Using the 2.5mm Allen key, remove four M3x10 screws.
- Remove the XY motor.
- Insert the 4mm Allen key through the hole and remove the M8x16 screw.
- Remove the CoreXY-back-right from the printer.

PASSO 26 Dissassembling the CoreXY back right



- Using a 2.5mm Allen key, remove two M3x35 screws.
- Remove the CoreXY-back-right-top from the CoreXY-back-right. Don't throw the parts away, we'll need some distance nuts.
- Remove the double pulley and the single pulley. Don't throw the parts away!

PASSO 27 Spacers removing

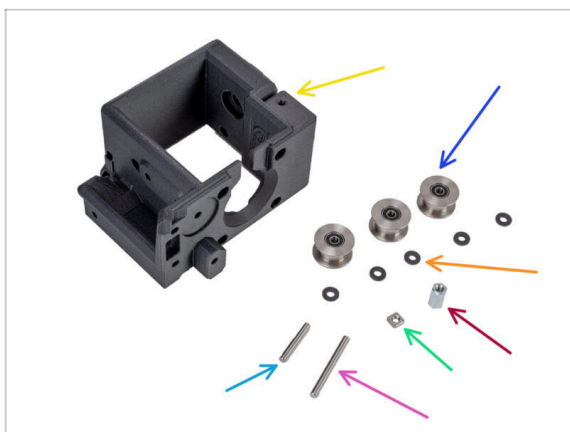


- Remove the M3x10 spacers from the CoreXY back right printed parts for the next steps.

 Hint: You can use an M3x35 to remove the M3x10 spacer nut.

 You can throw the printed parts away.

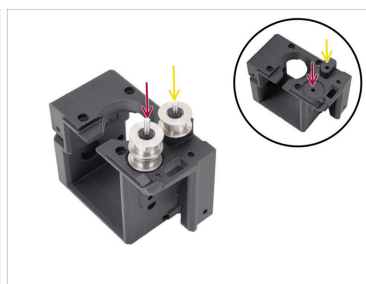
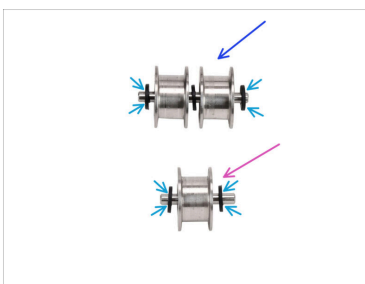
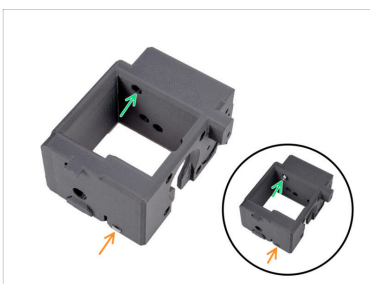
PASSO 28 New CoreXY back right bottom: parts preparation



For the next steps, please prepare:

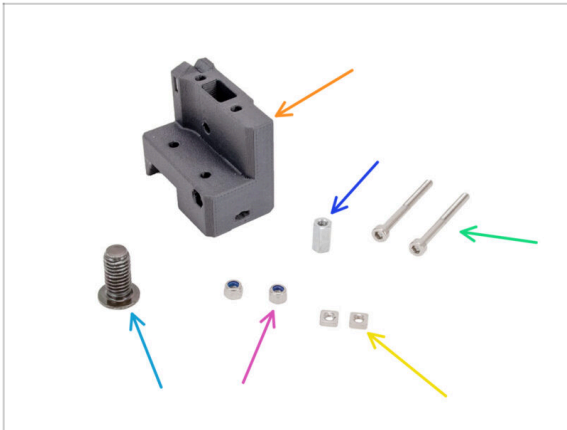
- New CoreXY back right bottom (1x)
- GT2-20 pulley (3x) *removed in previous steps*
- Washer 3x7x1 (5x)
- Pin H8 2.9x20 (1x) *removed in previous steps*
- Pin H8 2.9x30 (1x) *removed in previous steps*
- M3nS nut (1x)
- Hex spacer M3x10 (1x) *removed in previous steps*

PASSO 29 Assembling the CoreXY back right bottom



- Insert one M3nS nut into the CoreXY back right bottom as far as possible.
- Insert one M3x10 spacer nut into the CoreXY back right bottom as far as possible.
- ⓘ We recommend using the screw-pulling technique.
- Attach three washers and two pulleys on the longer pin in the order seen in the picture.
- Insert one pulley onto the shorter pin and attach two washer on both sides of the pulley.
- Push the washers and the pulleys together in the centre.
- Insert the prepared single pulley into the CoreXY back right bottom.
- Insert the prepared double pulley into the CoreXY back right bottom.

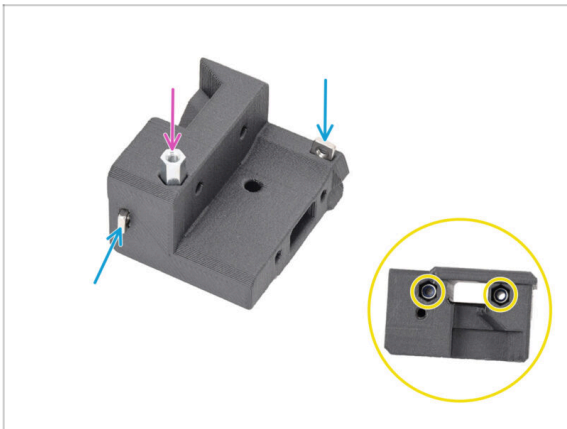
PASSO 30 New CoreXY back right top: parts preparation



For the next steps, please prepare:

- CoreXY back right top (1x)
- Hex spacer M3x10 (1x) *removed in previous steps*
- M3nS nut (2x)
- M3nN nut (2x)
- M3x35 screw (2x) *removed in previous steps*
- M8x16 screw (1x) *removed in previous steps*

PASSO 31 Assembling the CoreXY back right top



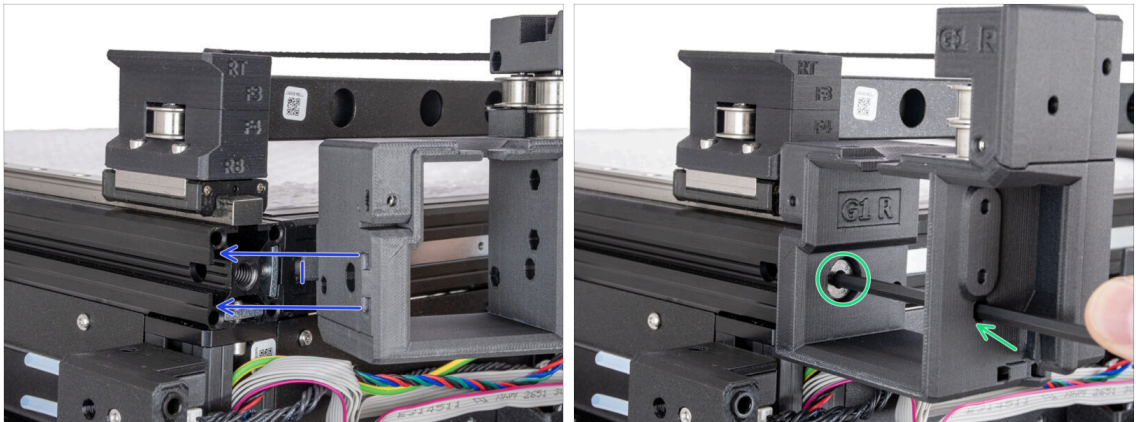
- Insert two M3nS nuts into CoreXY back right top as far as possible.
- Push the M3x10 hex spacer into the CoreXY back right top as far as possible.
- Insert two M3nS nuts into the CoreXY back right top.

PASSO 32 Assembling the CoreXY back right



- Attach the CoreXY back left top onto the pulleys and the CoreXY back right bottom.
- Make sure the pins align with the holes on the CoreXY back left top.
- Secure with two M3x35 screws.

PASSO 33 Installing the CoreXY back right



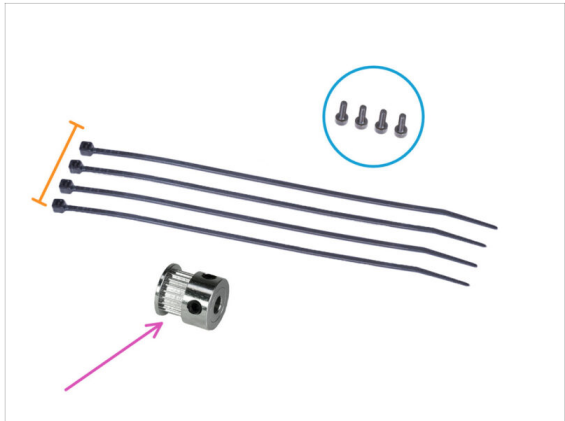
- Attach the CoreXY back right to the printer.
- Secure the CoreXY back right with an M8x16 screw using a 4.0 mm Allen key.

PASSO 34 Disassembling the XY motor pulley



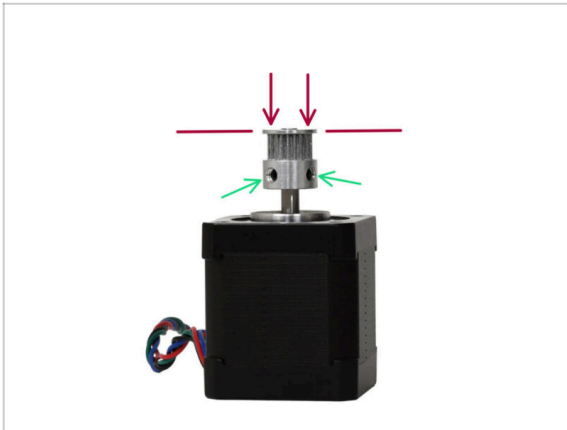
- Using the 2.0mm Allen key, loosen 2x set screws from the pulley 20t attached to the motor shaft.
- Slide out the pulley 20t from the motor shaft.

PASSO 35 New motor pulley: parts preparation



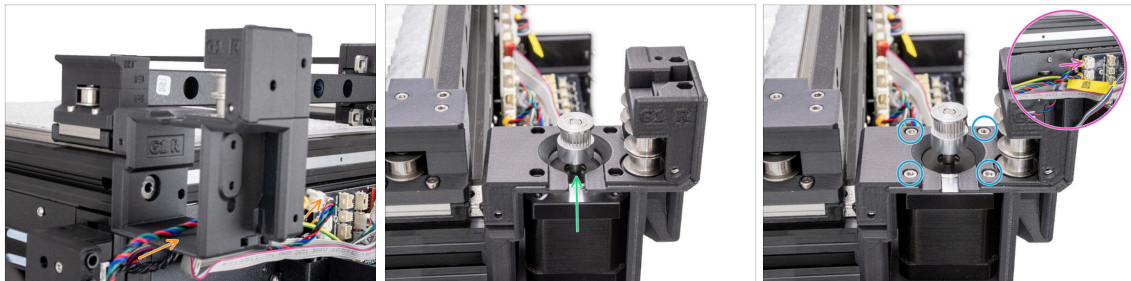
- Per i seguenti passi prepara:
- XY motor (1x) *removed in previous steps*
- M3x8 screw (4x) *removed in previous steps*
- Zip tie (4x)
- New T27-1.5GT pulley (1x)

PASSO 36 Assembling the new motor pulley



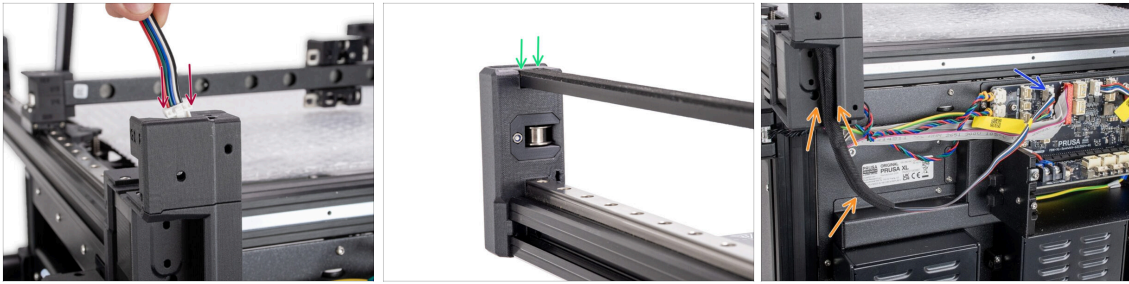
- Install the pulley flush with the top edge of the motor shaft.
- Install the pulley so that one set screw is **aligned with the flat part of the motor shaft**.
- Tighten both set screws using the 2.0mm Allen key.

PASSO 37 Installing the new motor



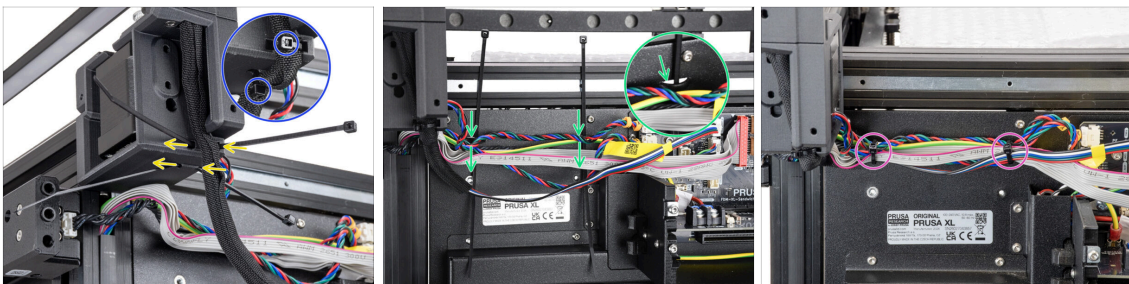
- Insert the cable through the CoreXY back right.
- Insert the motor into the CoreXY back right.
- Secure the motor with four M3x8 screws.
- Connect the XY motor cable to the XL sandwich board.

PASSO 38 Installing the LED bar



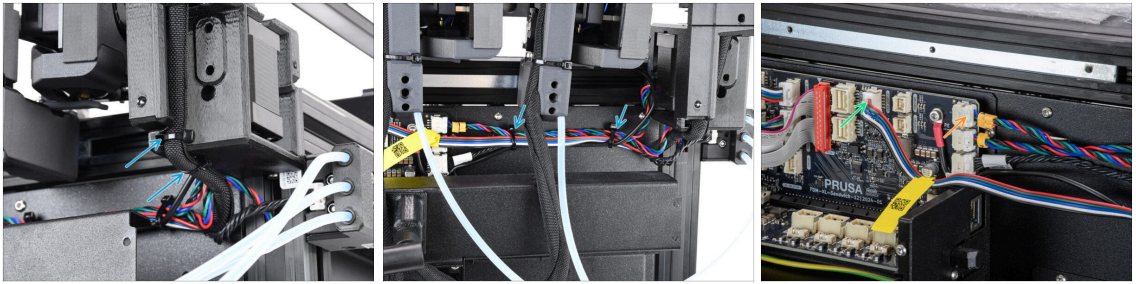
- Pass the end of the LED bar cable through the hole in the CoreXY back right.
 - ⚠ **Be very careful not to damage any part of the cable!**
- Place the other end into the notch on the CoreXY front right.
- Install the textile sleeve onto the LED bar cable and move it up as far as possible.
- Connect the LED bar cable to the XL sandwich board.

PASSO 39 Securing the cables



- Route two zip ties through the holes in the CoreXY back right.
- Secure the LED bar cable by tightening the zip ties. **Do not overtighten the zip ties!** Then cut off the excess plastic.
- Push two zip ties through the perforations in the back plate and guide them under all the cables.
- Secure all the cables by tying the zip ties. **Do not overtighten the zip ties!** Then cut off the excess plastic.

PASSO 40 Freeing the cables: right side



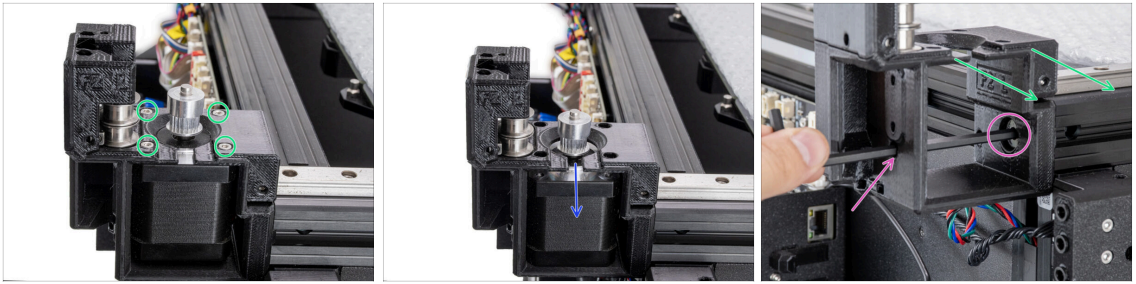
- Move to the other side of the printer.
 - Cut all four zipties on the right side to free the cables.
 - Unplug the XY motor cable.
 - Unplug the LED bar cable.
- ⚠ **Be careful: the connectors have a safety latch that must be pressed while disconnecting.**

PASSO 41 Removing the LED bar



- Remove the textile sleeve from the LED bar cable.
- Remove the LED bar by lifting it up and carefully pulling the cable through the CoreXY back right assembly.

PASSO 42 Removing the CoreXY back left assembly



- Using the 2.5mm Allen key, remove four M3x10 screws.
- Remove the XY motor.
- Insert the 4mm Allen key through the hole and remove the M8x16 screw.
- Remove the CoreXY-back-right from the printer.

PASSO 43 Dissassembling the CoreXY back left

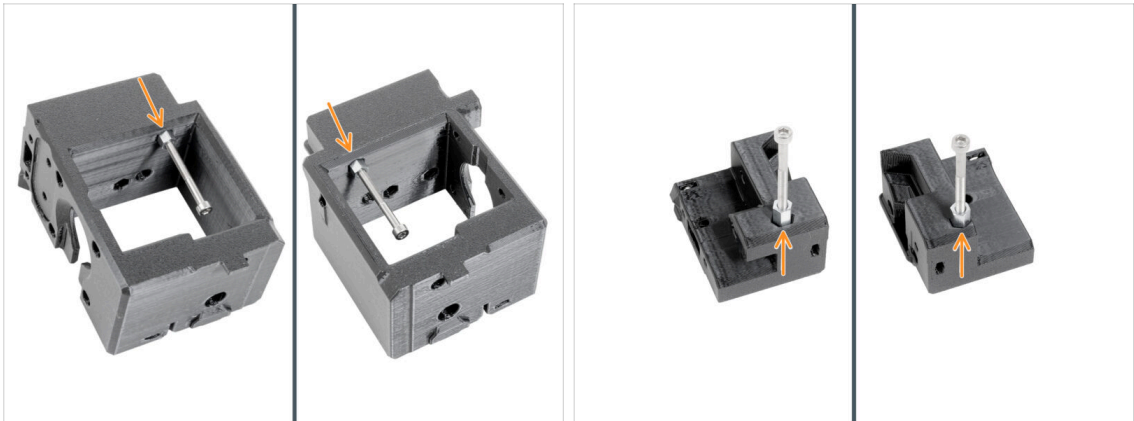


- Using a 2.5mm Allen key, remove two M3x35 screws.
- Remove the CoreXY-back-right-top from the CoreXY-back-right.
- Remove the double pulley and the single pulley.



Don't throw any of the parts away!

PASSO 44 Spacers removing

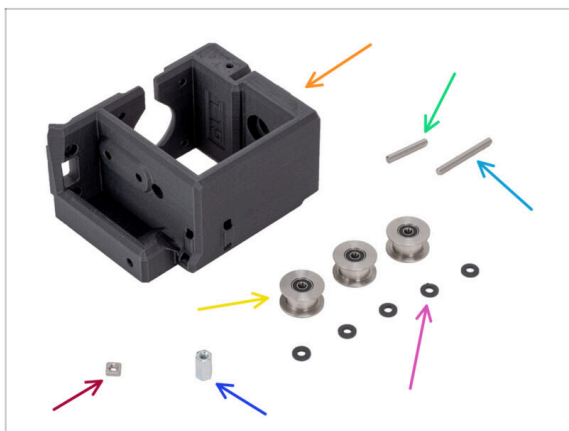


- Remove the M3x10 spacers from the CoreXY back left printed parts for the next steps.

i Hint: You can use an M3x35 to remove the M3x10 spacer nut.

📌 You can throw the printed parts away.

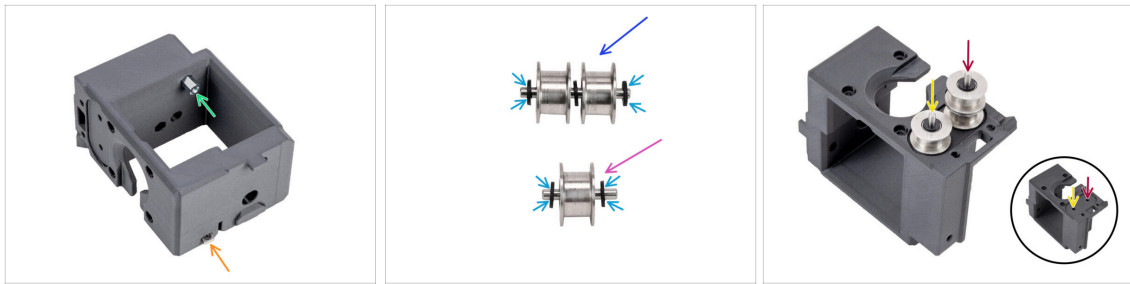
PASSO 45 New CoreXY back left bottom: parts preparation



For the next steps, please prepare:

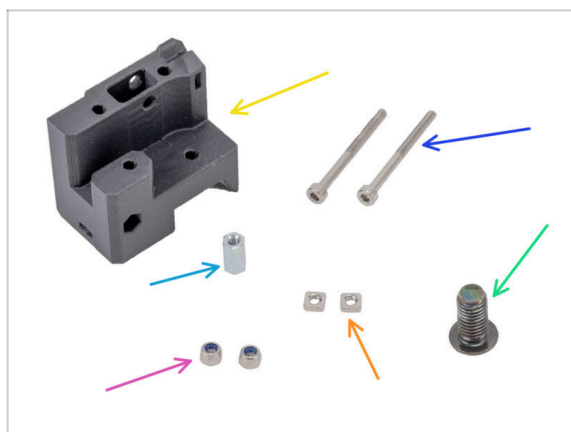
- New CoreXY back left bottom (1x)
- Pin H8 2.9x20 (1x) *removed in previous steps*
- Pin H8 2.9x30 (1x) *removed in previous steps*
- GT2-20 pulley (3x) *removed in previous steps*
- Washer 3x7x1 (5x)
- Hex spacer M3x10 (1x) *removed in previous steps*
- M3nS nut (1x)

PASSO 46 Assembling the CoreXY back left bottom



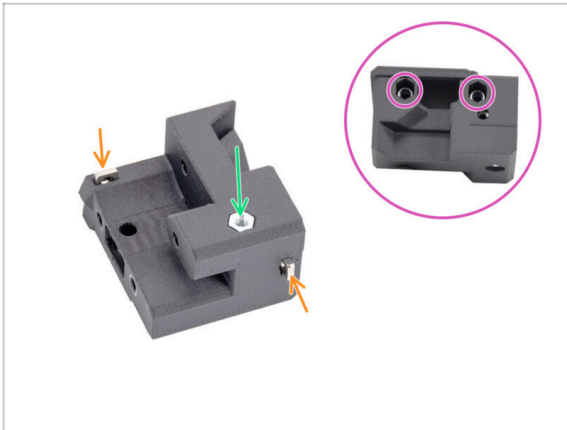
- ✦ Insert one M3nS nut into the CoreXY back left bottom as far as possible.
- ✦ Insert one M3x10 spacer nut into the CoreXY back left bottom as far as possible.
- ⓘ We recommend using the screw-pulling technique.
- ✦ Attach three washers and two pulleys on the longer pin in the order seen in the picture.
- ✦ Insert one pulley onto the shorter pin and attach two washer on both sides of the pulley.
- ✦ Push the washers and the pulleys together in the centre.
- ✦ Insert the prepared single pulley into the CoreXY back left bottom.
- ✦ Insert the prepared double pulley into the CoreXY back left bottom.
- ⚠ **Ensure the correct position of the pins!**

PASSO 47 New CoreXY back left top: parts preparation



- ⬛ **For the next steps, please prepare:**
- ✦ CoreXY back left top (1x)
- ✦ M3x35 screw (2x) *removed in previous steps*
- ✦ M8x16 screw (1x) *removed in previous steps*
- ✦ Hex spacer M3x10 (1x) *removed in previous steps*
- ✦ M3nS nut (2x)
- ✦ M3N nut (2x)

PASSO 48 Assembling the CoreXY back left top



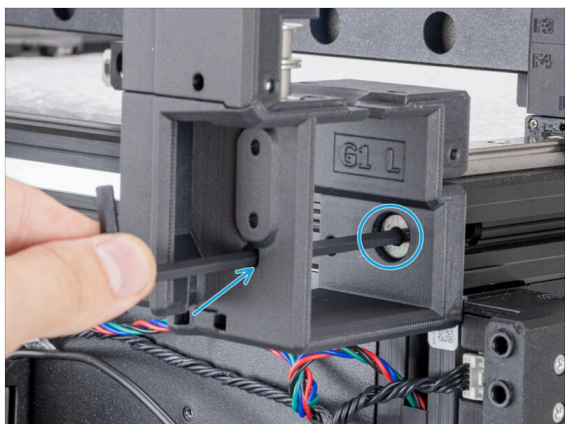
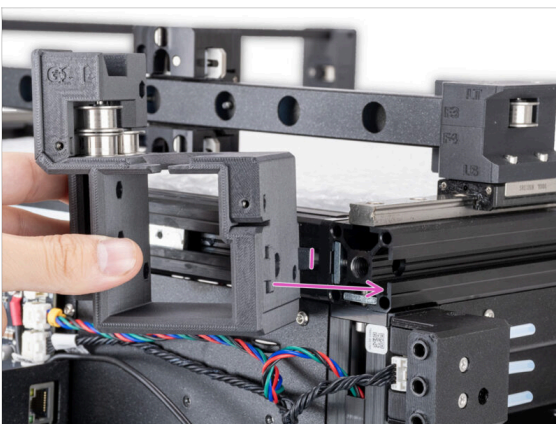
- Insert two M3nS nuts into CoreXY back left top as far as possible.
- Push the M3x10 hex spacer into the CoreXY back left top as far as possible.
- Insert two M3nS nuts into the CoreXY back right top.
- Inserisci qui il tuo testo

PASSO 49 Assembling the CoreXY back left !!



- Attach the CoreXY back left top onto the pulleys and the CoreXY back right bottom.
- Make sure the pins align with the holes on the CoreXY back left top.
- Secure with two M3x35 screws.

PASSO 50 Installing the CoreXY back left



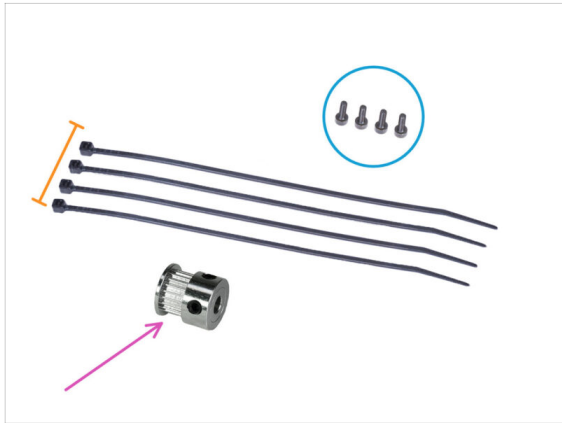
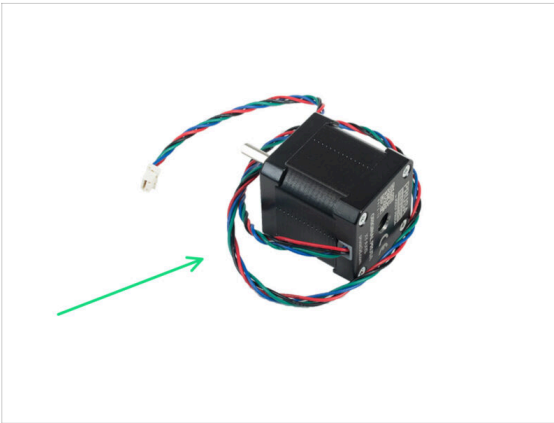
- Attach the CoreXY back left to the printer.
- Secure the CoreXY back left with an M8x16 screw using a 4.0 mm Allen key.

PASSO 51 Disassembling the XY motor pulley



- Using the 2.0mm Allen key, loosen 2x set screws from the pulley 20t attached to the motor shaft.
- Slide out the pulley 20t from the motor shaft.

PASSO 52 New motor pulley: parts preparation



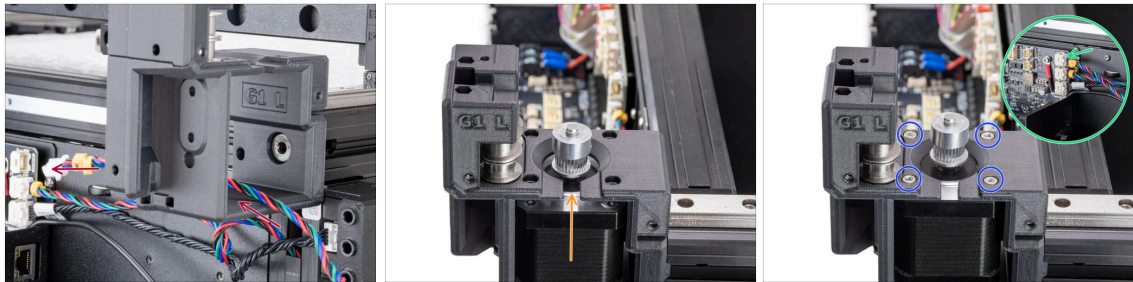
- Per i seguenti passi prepara:
- XY motor (1x) *removed in previous steps*
- M3x8 screw (4x) *removed in previous steps*
- Zip tie (4x)
- New T27-1.5GT pulley (1x)

PASSO 53 Assembling the new motor pulley



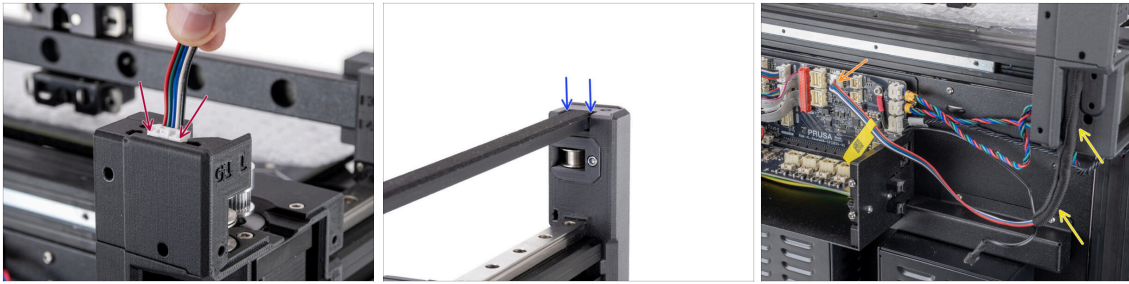
- ✦ Install the pulley 2.5mm higher than the start of the flat part of the motor shaft. Use the 2.5mm Allen key for reference.
- ✦ Alternatively, measure the distance between the beginning of the motor shaft and the pulley, 3.6mm.
- 📌 Nota l'orientamento della puleggia. I denti si trovano sotto le viti di fissaggio.
- ⚠️ Install the pulley so that one set screw is aligned with the flat part of the motor shaft.
- ✦ Tighten both set screws using the 2.0mm Allen key.

PASSO 54 Installing the new motor



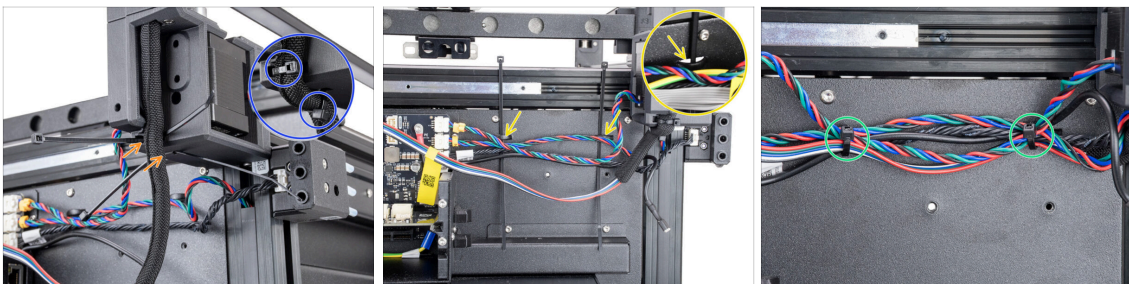
- ✦ Insert the cable through the CoreXY back left.
- ✦ Insert the motor into the CoreXY back left.
- ✦ Secure the motor with four M3x8 screws.
- ✦ Connect the XY motor cable to the XL sandwich board.

PASSO 55 Installing the LED bar



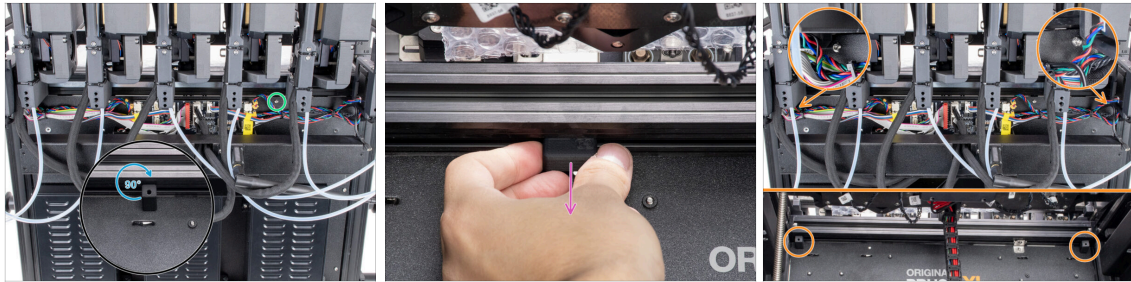
- Pass the end of the LED bar cable through the hole in the CoreXY back right.
-  **Be very careful not to damage any part of the cable!**
- Place the other end into the notch on the CoreXY front right.
- Install the textile sleeve onto the LED bar cable and move it up as far as possible.
- Connect the LED bar cable to the XL sandwich board.

PASSO 56 Securing the cables



- Route two zip ties through the holes in the CoreXY back left.
- Secure the LED bar cable by tightening the zip ties. Do not use excessive force and do not overtighten the zip tie!
- Push two zip ties through the perforations in the back plate and guide them under all the cables.
- Secure all the cables by tying the zip ties. Do not use excessive force and do not overtighten the zip tie!

PASSO 57 Removing upper back cover clips



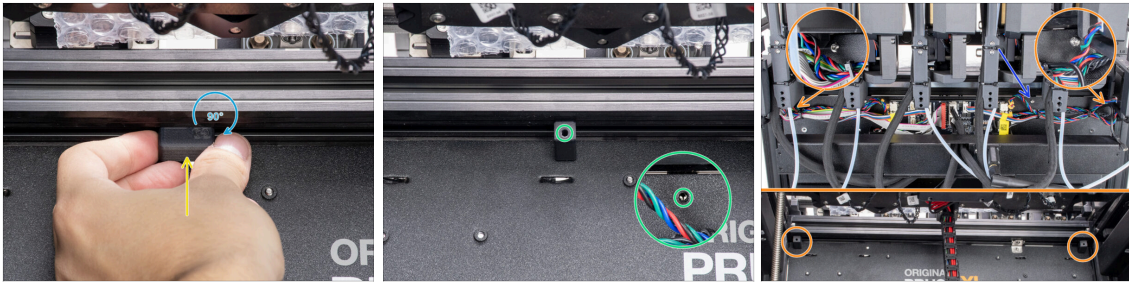
- Remove the M3x8rT screw from the back of the printer.
- i** The cover clip is inside the printer.
- Turn the cover clip 90° degrees in any direction.
- Remove the cover clip from the frame.
- Repeat for the other two clips.

PASSO 58 New upper back cover clips: parts preparation



- For the following steps, please prepare:**
- New cover clips (3x)
- M3x8rT screw (3x) *removed in previous step*

PASSO 59 Installing the new upper back cover clips



- ✦ Insert the new cover clip into the frame.
- ✦ Turn it 90° degrees to lock it in.
- ✦ Align the holes of the cover clip and the back plate.
- ✦ Secure with an M3x8rT screw.
- ⚠ **Do not overtighten the screw! You could destroy the printed part.**
- ✦ Repeat for the other two cover clips.

PASSO 60 Copertura posteriore: preparazione dei componenti



For the next steps, please prepare:

- ✦ Cable cover cap left (1x) *removed in previous steps*
- ✦ Cable cover cap right (1x) *removed in previous steps*
- ✦ M3x8rT screw (4x) *removed in previous steps*
- ✦ M3x4rT screws (4x) *removed in the previous steps*

PASSO 61 Back cover attaching I.

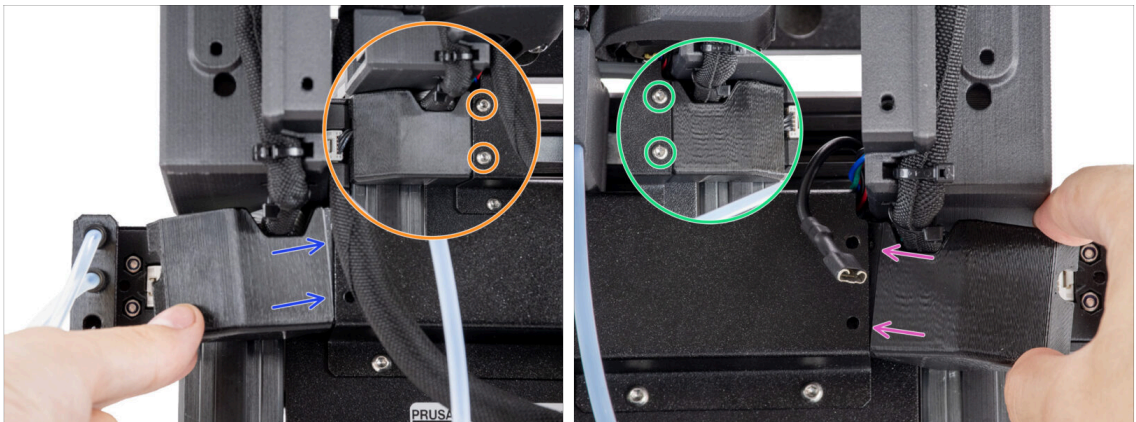


🟡 Carefully attach the back electronics cover to the printer.

⚠️ **Avoid pinching or damaging any of the cables!**

🟢 Secure it with four M3x4rT screws.

PASSO 62 Back cover attaching II.



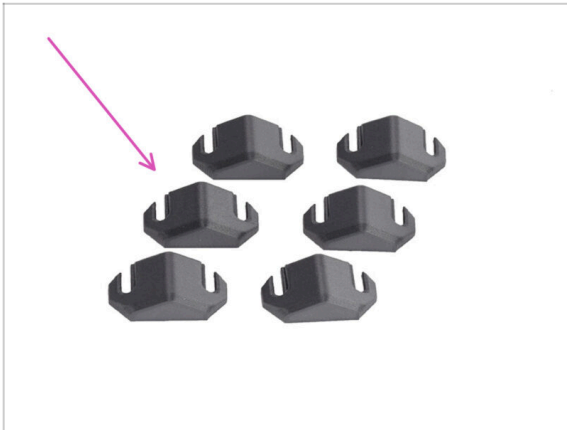
🟢 Gently insert the cable cover cap left.

🟡 Secure it with two M3x8rT screws using a T10 Torx screwdriver.

🟡 On the other side, gently insert the cable cover cap right.

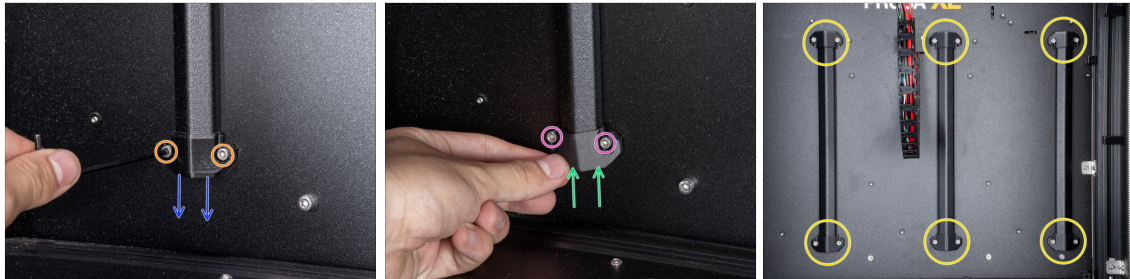
🟢 Secure it with two M3x8rT screws using a T10 Torx screwdriver.

PASSO 63 New PSU cable covers: parts preparation



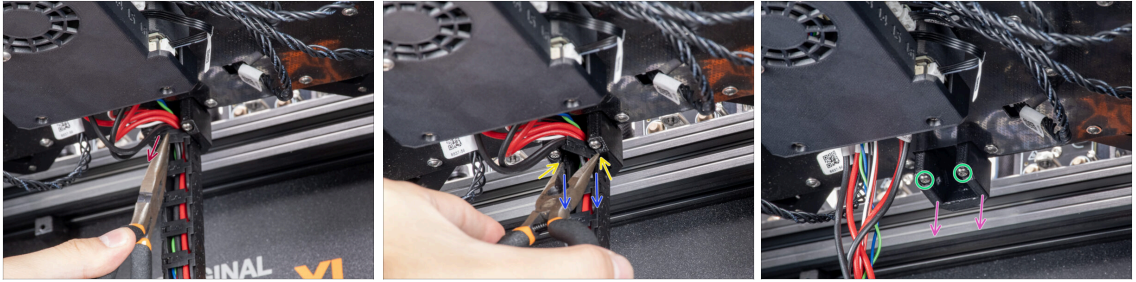
- For the next steps, please prepare:
- New PSU cable cover (6x)

PASSO 64 Replacing the PSU cable covers



- Loosen the two M3x8 screws.
⚠ Do not remove them completely.
- Remove the old PSU cable cover by sliding it down.
- Insert the new PSU cable cover by sliding it up under the screws.
- Gently secure it by tightening the two M3x8 screws.
⚠ **Do not overtighten, you might snap the printed part!**
- Repeat the same procedure for all the PSU cable covers.

PASSO 65 Removing the old bed energy chain mount



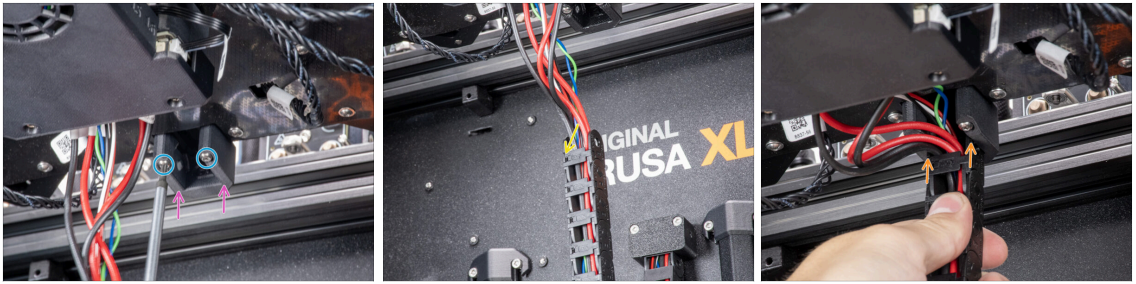
- ◆ Open one segment of the energy chain using pliers.
 - ⚠ **Be very careful not to damage the energy chain or the cables!**
- ◆ Using pliers, grab the end of the energy chain by its sides **as close to the energy chain mount as possible**.
 - ◆ Remove it by firmly pulling downwards.
- ◆ Remove two M3x20rT screws.
- ◆ Remove the old bed energy chain mount.

PASSO 66 New bed energy chain mount: parts preparation



- ◆ **Per i seguenti passi prepara:**
- ◆ New bed energy chain mount (1x)
- ◆ M3x20rT (2x) *removed in previous steps*

PASSO 67 Installing the new bed energy chain mount



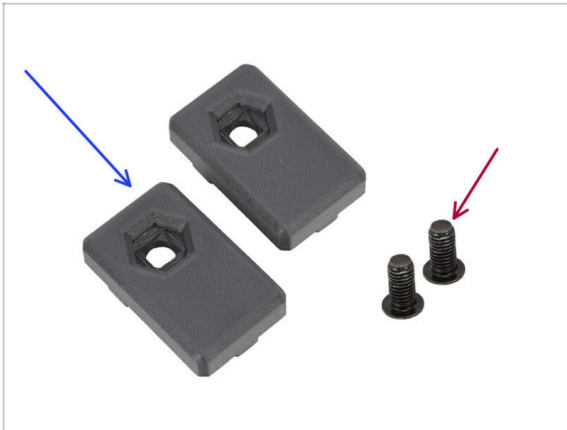
- Place the new bed energy chain mount into the designated space under the heatbed.
- Secure it with two M3x20rT screws.
- Close the segment you opened in the previous step by pushing it against the side of the energy chain mount.
- Firmly push the end of the energy chain into the bed energy chain mount until it clicks.

PASSO 68 Removing the frame front cover



- Remove the M8x16 screw using a 4.0mm Allen key.
- Remove the frame front cover.
- Repeat the same procedure on the other side.

PASSO 69 New frame front cover: parts preparation



● Per i prossimi passaggi, per favore prepara:

- New frame front cover (2x)
- M8x16 screw (2x) *removed in previous step*

PASSO 70 Installing the new right frame front cover



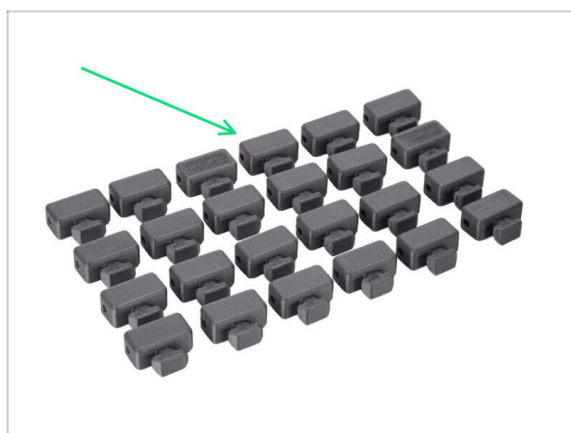
- Attach the new frame front cover to the exposed end of the frame on the right side.
- Secure the new frame front cover with an M8x16 screw using a 4.0 mm Allen key.

PASSO 71 Installing the new left frame front cover



- ◆ Attach the new frame front cover to the exposed end of the frame on the left side.
- ◆ Secure the new frame front cover with an M8x16 screw using a 4.0 mm Allen key.

PASSO 72 New cover clips: parts preparation



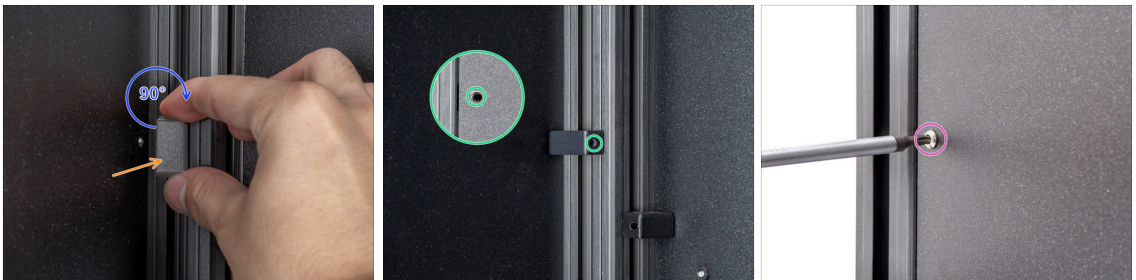
- ◆ For the following steps, please prepare:
- ◆ New cover clips (28x)

PASSO 73 Removing the cover clip



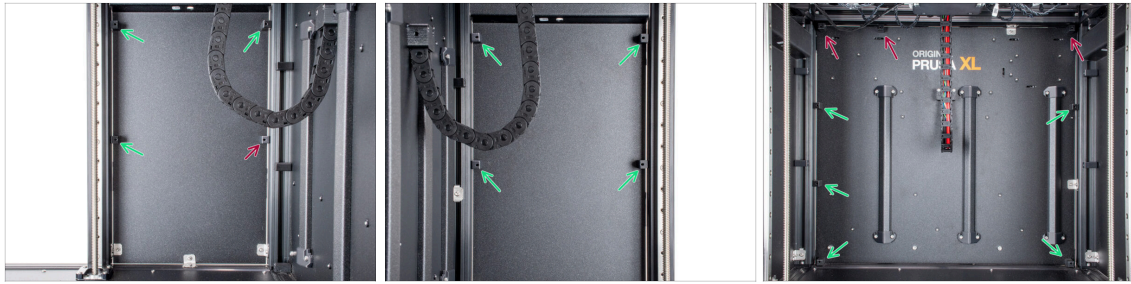
- Locate the old cover clip on the inside of the printer.
- Remove the M3x8rT screw from the other side of the metal plate.
- Rotate the cover clip 90° degrees to free the cover clip.
- Remove the cover clip from the frame.

PASSO 74 Installing the new cover clip



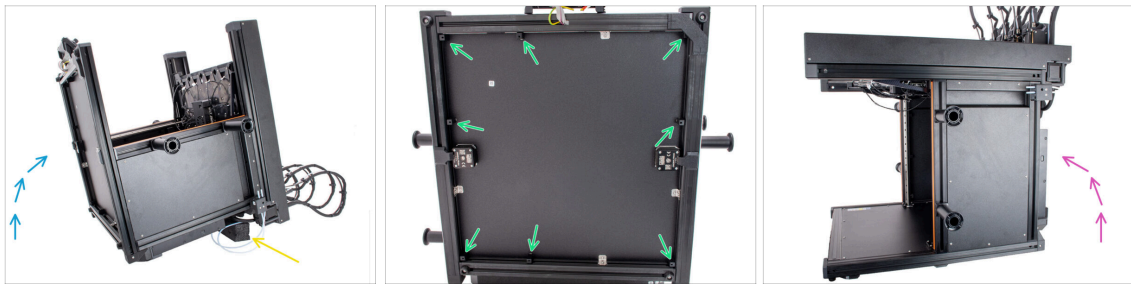
- Insert the new cover clip into the frame.
 - Turn it 90° degrees to lock it in.
 - Align the holes of the cover clip and the metal plate.
 - Secure with an M3x8rT screw.
- ⚠ **Do not overtighten the screw! You could destroy the printed part.**

PASSO 75 Replacing the cover clips I.



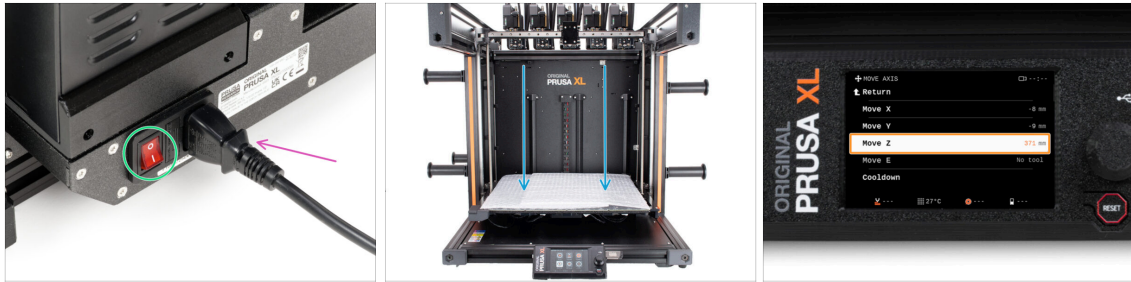
- Repeat the same procedure for the rest of the cover clips.
- These are the ones that should be changed already in the previous steps.

PASSO 76 Replacing the cover clips II.



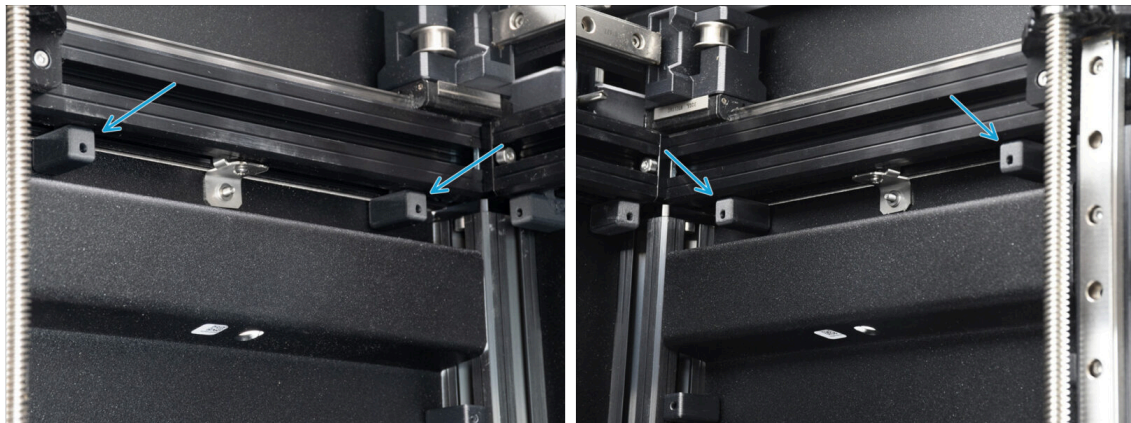
- Carefully lay the printer on it's back.
- Use any type of support material to not damage the printer.**
- Repeat the same procedure for the cover clips as in the previous steps.
- Carefully lift the printer and set it on it's base.

PASSO 77 Adjusting the heatbed



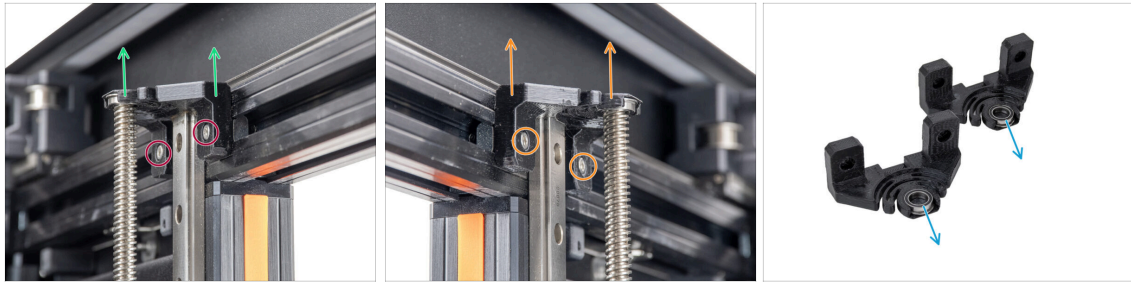
- ◆ From the rear side of the printer, plug in the PSU cable.
- ◆ Turn the power switch ON (symbol "I").
- ◆ Inserisci qui il tuo testo
 - ◆ Go to the menu, press **Control** -> **Move Axis** -> **Move Z** and set the heatbed all the way down.
- ◆ Turn off and unplug the printer.

PASSO 78 Replacing the cover clips III.



- ◆ Replace the last four cover clips using the procedure from the previous steps.

PASSO 79 Removing the Z axis bearing housing



- Remove the two M3x10 screws from the Z axis bearing housing.
- Remove the Z axis bearing housing by pulling it up.
- Repeat the same procedure on the other side.
- Pull the Z axis bearing out of it's printed housing
- i** You can throw out the printed housing, but **keep the Z axis bearing** for the next steps.

PASSO 80 New Z axis bearing housing: parts preparation



- For the next steps, please prepare:**
- New Z axis bearing housing (2x)
 - Z axis bearing (2x) *removed in previous steps*
 - M3x10 screw (4x) *removed in previous steps*

PASSO 81 Installing the new Z axis bearing housing I.



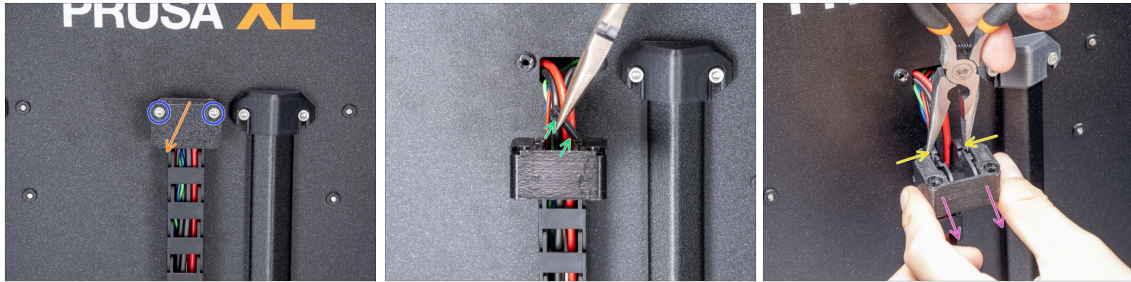
- Install the Z axis bearing into it's printed housing by pushing it firmly.
- Attach the Z axis bearing housing onto the Z axis rod and frame.
- Secure with two M3x10 screws.

PASSO 82 Installing the new Z axis bearing housing II.



- Move to the other side.
- Attach the Z axis bearing housing onto the Z axis rod and frame.
- Secure with two M3x10 screws.

PASSO 83 Removing the frame energy chain mount



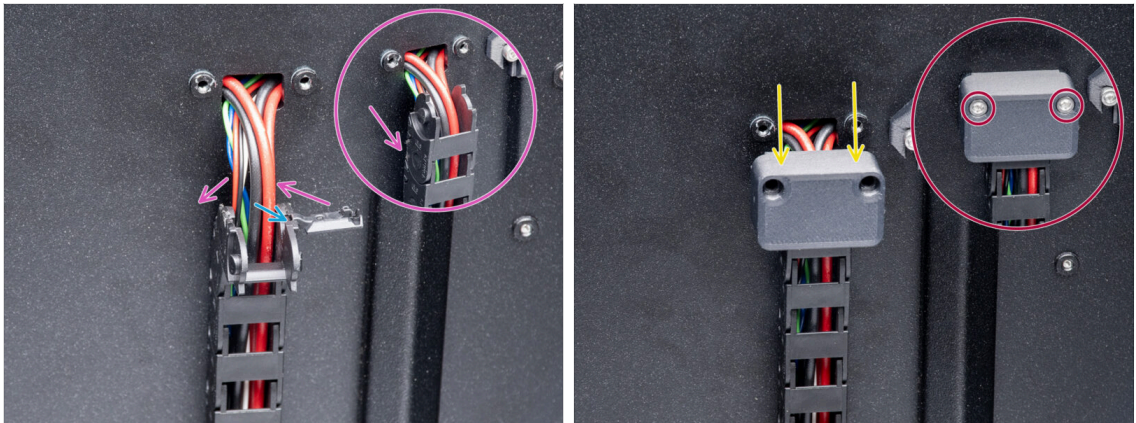
- ◆ Remove the two M3x16 screws from the frame energy chain mount.
- ◆ Pull the frame energy chain mount towards yourself.
- ◆ Completely remove the top energy chain segment lock by pulling it away from the chain using pliers.
- ◆ Push the sides of the energy chain together with pliers as close to the frame energy chain mount as possible.
- ◆ Pull the frame energy chain mount out to remove it.

PASSO 84 New frame energy chain mount: parts preparation



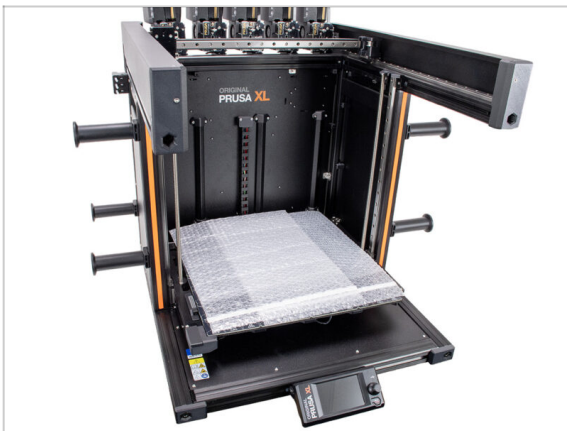
- ◆ **Per i seguenti passi prepara:**
- ◆ New frame energy chain mount (1x)
- ◆ Energy chain segment lock (1x) *removed in previous step*
- ◆ M3x16 screw (2x) *removed in previous step*

PASSO 85 Installing the new energy chain mount



- Install the energy chain segment lock onto the energy chain.
 - First push the single end onto the right side.
 - Then guide it behind the cables and lock it on the other side.
- Firmly push the new energy chain mount onto the chain mount.
- Secure it to the back plate with two M3x16 screws.

PASSO 86 It's done



- Congrats! You have finished another chapter.
- Let's continue to the next one: **Belts upgrade.**

5. Belts, toolhead and back cover assembly

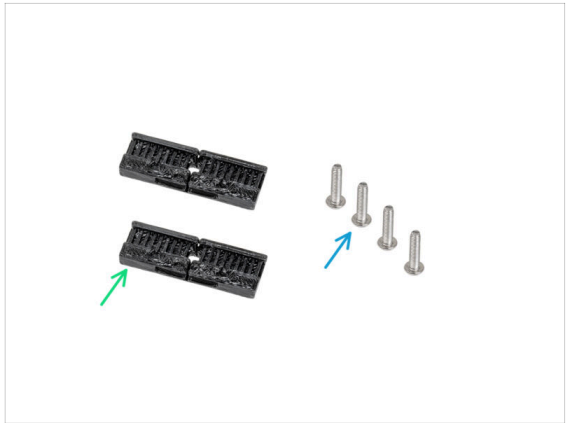
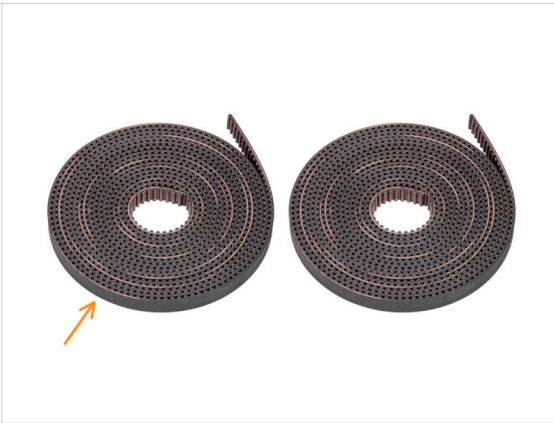


PASSO 1 Fissaggio della cinghia: informazioni importanti



- ⚠ È importante fissare correttamente le cinghie alla stampante. Non avere fretta.
- ⬢ Confronta sempre le immagini con la tua stampante.
- ⚠ Assicurati che nessuna cinghia sia attorcigliata.

PASSO 2 Fissaggio della cinghia: preparazione dei componenti



- ⬢ Per i seguenti passi prepara:
- 🟠 New XY belt 1.5GT (2x)
- 🟢 New belt clamp (2x)
- 🟡 Viti M3x12rT (4x) che hai rimosso nei passi precedenti

PASSO 3 Fissaggio della cinghia inferiore: lato anteriore destro



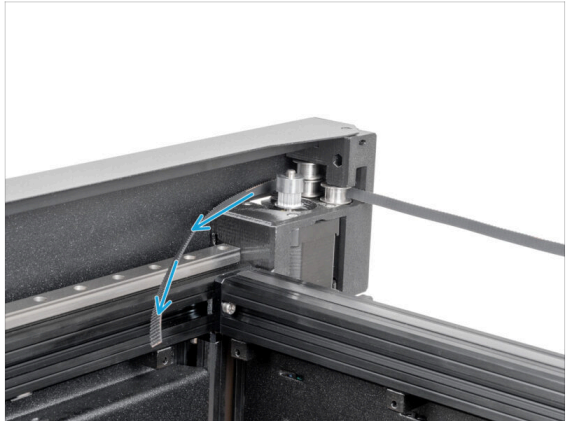
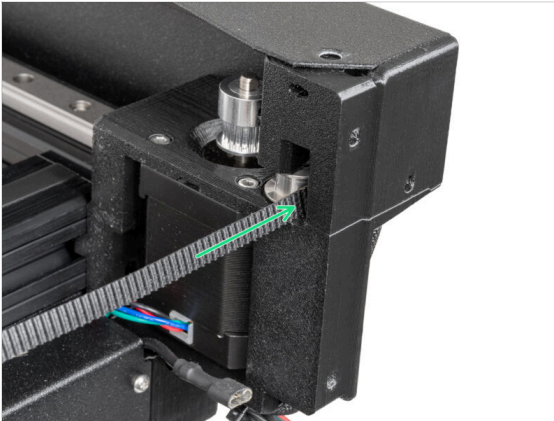
- Dal lato frontale della stampante:
- Prendi una delle cinghie.
- Inserisci un'estremità della cinghia nella parte anteriore inferiore del pezzo Y-carriage-right-base.
- La cinghia deve essere rivolta verso la stampante con i denti in vista (non il lato liscio della cinghia).
- ❗ Controlla che il lato con i denti sia rivolto verso la macchina.
- Sul lato interno della parte Y-carriage-right-base tira la cinghia.
- ⚠ Non tirare troppo la cinghia, potrebbe sfilarsi dal supporto Y-carriage-right-base e l'intero processo di aggancio della cinghia dovrà ricominciare dall'inizio.

PASSO 4 Fissaggio della cinghia inferiore: lato posteriore destro



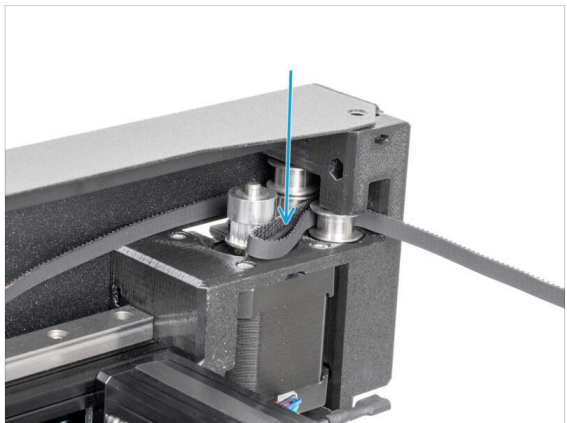
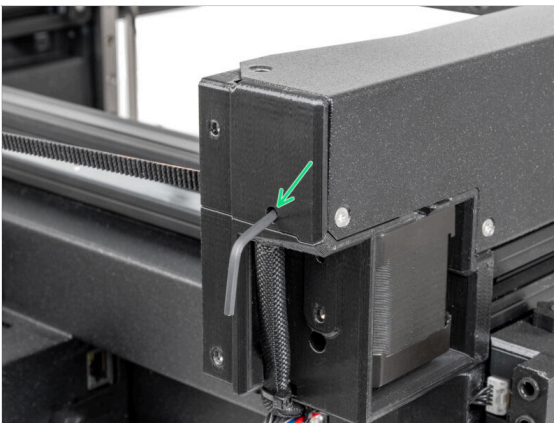
- Tira la cinghia un altro po' e inseriscila dietro la puleggia inferiore.
- Tira la cinghia, che ora è inserita nella puleggia inferiore.

PASSO 5 Fissaggio della cinghia inferiore: lato posteriore sinistro



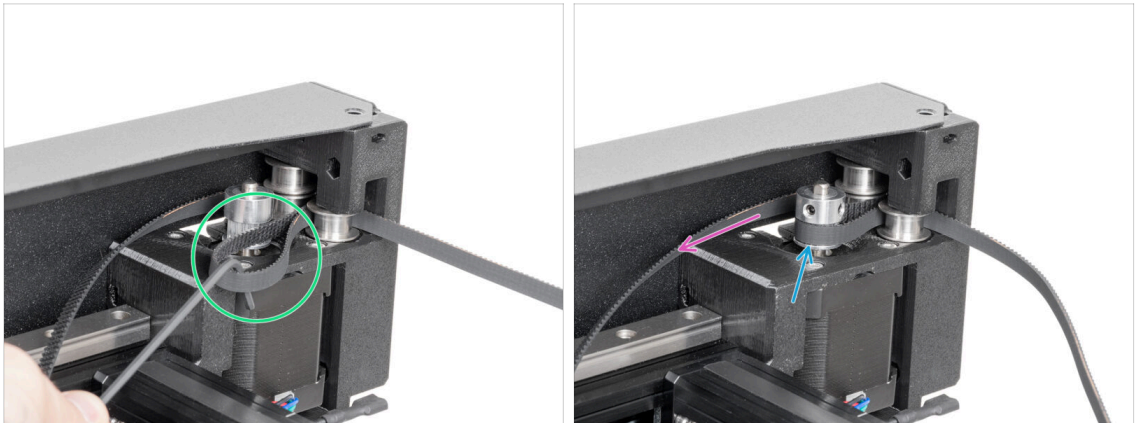
- Tira ancora un po' la cinghia e inseriscila dietro le pulegge inferiori.
- Tira la cinghia, che ora è inserita attraverso le pulegge inferiori.

PASSO 6 Fissaggio della cinghia inferiore: preparazione puleggia motore



- Dal lato posteriore della stampante:
- Inserisci la chiave a brugola da 2,5 mm attraverso il foro per creare un occhiello sulla cinghia.
- Una volta creato un occhiello, puoi rimuovere la chiave a brugola. **Non tirare la cinghia!**

PASSO 7 Fissaggio della cinghia inferiore: fissaggio puleggia motore



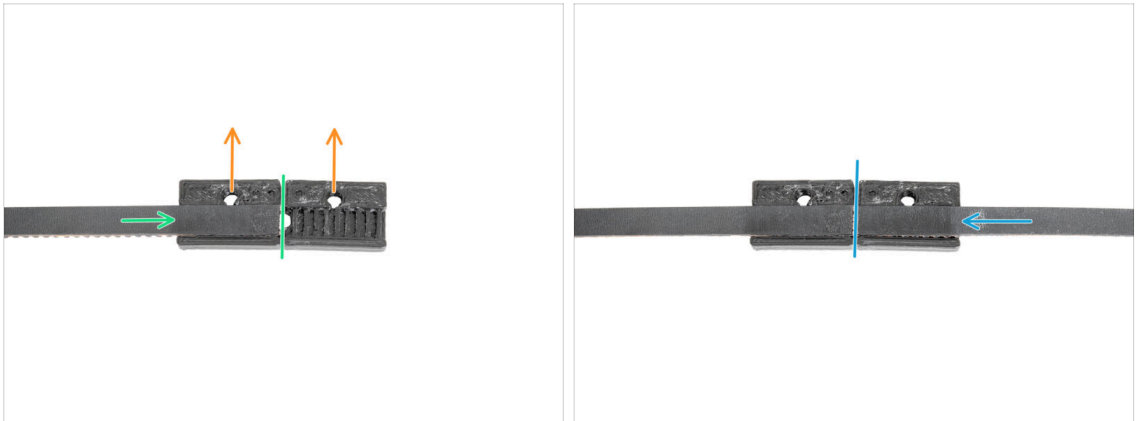
- Dal lato frontale della stampante:
- Utilizzando il lato più corto della chiave a brugola da 2,5 mm, tira delicatamente la cinghia per creare un occhiello più grande.
- Attacca l'occhiello sulla puleggia del motore.
- Tira la cinghia per fissare la sua posizione sulla puleggia.

PASSO 8 Fissaggio della cinghia inferiore: lato sinistro



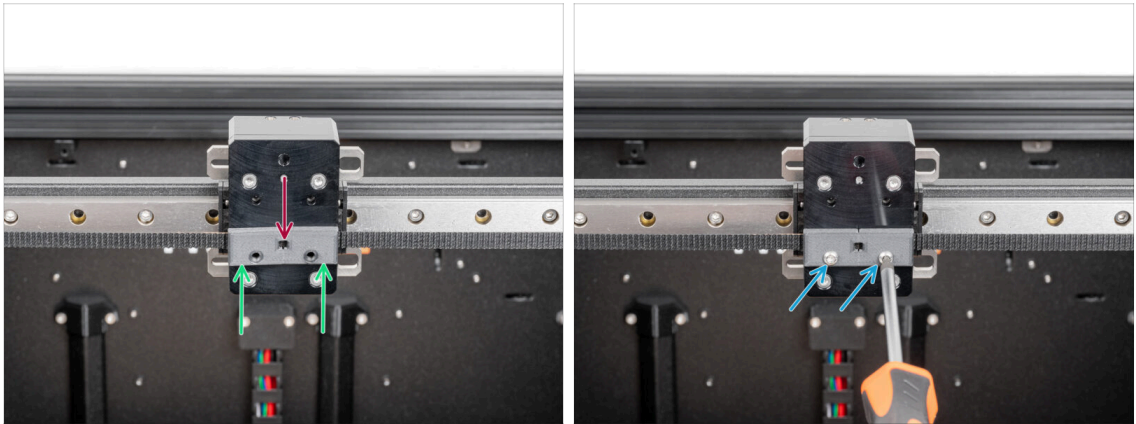
- ① Quando tiri la cinghia sentirai una maggiore resistenza da parte del motore XY, questo è perfettamente normale.
- Tira la cinghia un altro po' e guidala dietro la parte Y-carriage-left-base.
- Tira la cinghia intorno alla puleggia sul lato anteriore sinistro.
- Fai passare la cinghia intorno alla puleggia nella parte Y-carriage-left-base.

PASSO 9 Fissaggio della cinghia inferiore: morsetto della cinghia



- ① Il colore dei morsetti della cinghia potrebbe essere diverso a seconda che tu abbia un Original Prusa Enclosure XL o meno. La procedura è la stessa, continua.
- ① Questa immagine è stata scattata fuori dalla stampante su uno sfondo bianco per una migliore visibilità e definizione. Segui questo passaggio sulla tua stampante.
- Prepara un morsetto per cinghia con i fori per le viti rivolti verso l'alto.
- Attacca l'estremità sinistra al morsetto della cinghia. L'estremità della cinghia deve trovarsi a metà del morsetto.
- Attacca l'estremità destra al morsetto della cinghia. L'estremità della cinghia deve trovarsi a metà del morsetto.
- ① Il morsetto con le cinghie sarà ruotato di 180° e fissato al carrello X.

PASSO 10 Fissaggio della cinghia inferiore: fissaggio del morsetto della cinghia



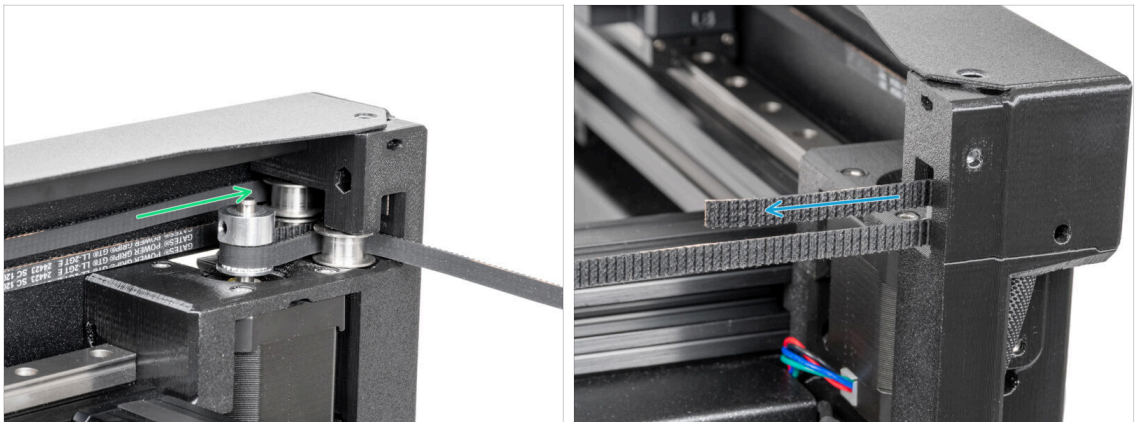
- Ruota di 180° il morsetto con le cinghie e fissalo sul carrello X.
- Controlla che le cinghie siano in posizione. In caso contrario, sistemale in posizione come indicato nel passaggio precedente.
- Inserisci due viti M3x12rT e fissale con un cacciavite Torx T10.
- Ben fatto! Una delle cinghie è stata fissata. Proviamo la seconda.

PASSO 11 Fissaggio della cinghia superiore: lato anteriore sinistro



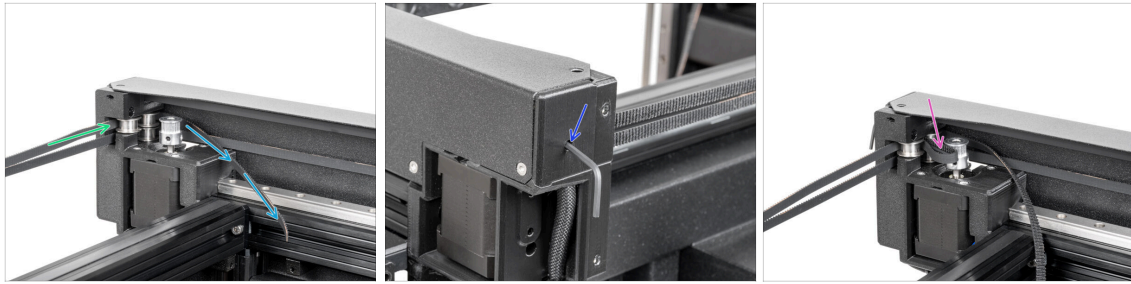
- Dal lato frontale della stampante:
- Prendi la seconda cinghia.
- Inserisci un'estremità della cinghia nella parte anteriore superiore del pezzo Y-carriage-left-base.
- La cinghia deve essere rivolta verso la stampante con i denti in vista (non il lato liscio della cinghia).
- ⓘ Controlla che il lato con i denti sia rivolto verso la macchina.
- Sul lato interno della parte Y-carriage-left-base tira la cinghia.
- ⓘ Non tirare troppo la cinghia, potrebbe cadere dal supporto Y-carriage-left-base e l'intero processo di aggancio della cinghia dovrà ricominciare dall'inizio.

PASSO 12 Fissaggio della cinghia superiore: lato posteriore sinistro



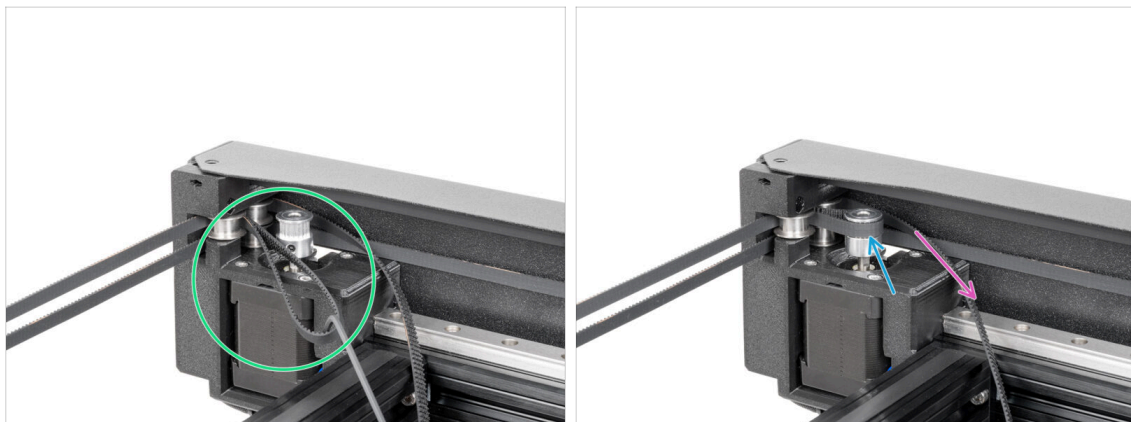
- Tira di più la cinghia e inseriscila dietro la puleggia superiore.
- Tira la cinghia, che ora è inserita attraverso la puleggia superiore.

PASSO 13 Fissaggio della cinghia superiore: lato posteriore destro



- Tira di più la cinghia e inseriscila dietro le pulegge superiori.
- Tira la cinghia, che ora è inserita attraverso le pulegge superiori.
- Dal lato posteriore della stampante:
- Inserisci la chiave a brugola da 2,5 mm attraverso il foro per creare un occhiello sulla cinghia.
- Una volta creato un occhiello, puoi rimuovere la chiave a brugola. Non tirare la cinghia!
- Procedi al passo successivo.

PASSO 14 Fissaggio della cinghia superiore: fissaggio puleggia motore



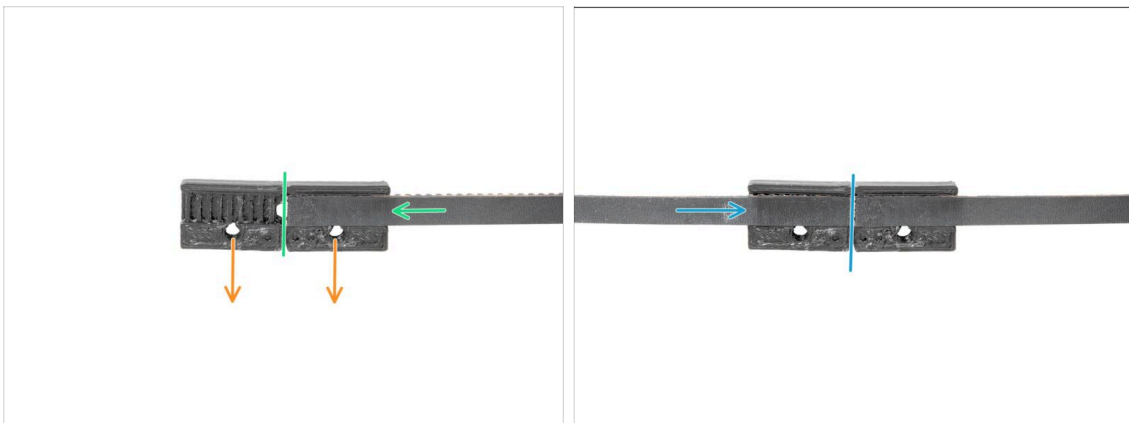
- Dal lato frontale della stampante:
- Utilizzando il lato più corto della chiave a brugola da 2,5 mm, tira delicatamente la cinghia per creare un occhiello più grande.
- Attacca l'occhiello sulla puleggia del motore.
- Tira la cinghia per fissare la sua posizione sulla puleggia.

PASSO 15 Fissaggio della cinghia superiore: lato destro



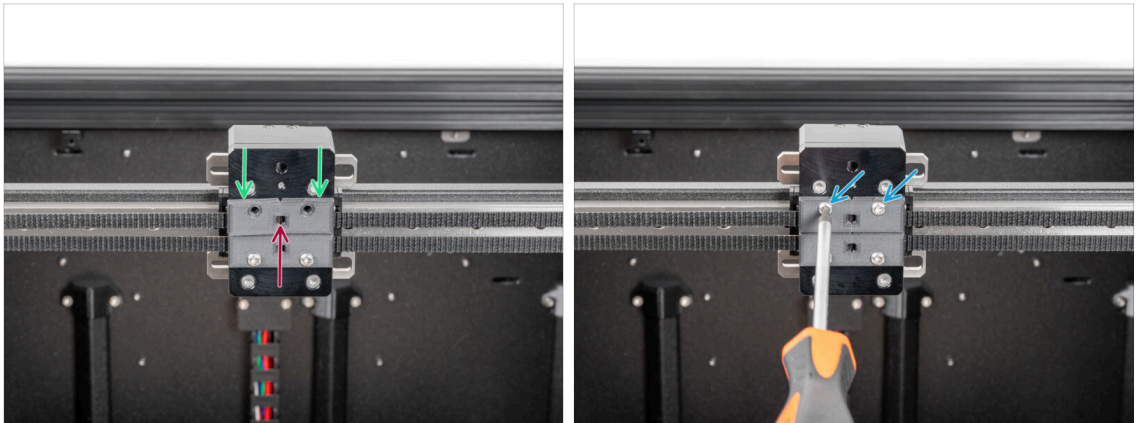
- ❗ Quando tiri la cinghia sentirai una maggiore resistenza da parte del motore XY, questo è perfettamente normale.
- 🟢 Tira di più la cinghia e allungala dietro la parte Y-carriage-right-base.
- 🟡 Tira la cinghia intorno alla puleggia sul lato anteriore destro.
- 🟣 Fai passare la cinghia intorno alla puleggia nella parte Y-carriage-right-base.

PASSO 16 Fissaggio della cinghia superiore: morsetto della cinghia



- ❗ Il colore dei morsetti della cinghia potrebbe essere diverso a seconda che tu abbia un Original Prusa Enclosure XL o meno. La procedura è la stessa, continua.
- ❗ Questa immagine è stata scattata fuori dalla stampante su uno sfondo bianco per una migliore visibilità e definizione. Segui questo passaggio sulla tua stampante.
- 🟠 Prepara un morsetto per cinghia con i fori per le viti rivolti verso il basso.
- 🟢 Attacca l'estremità destra al morsetto della cinghia. L'estremità della cinghia deve trovarsi a metà del morsetto.
- 🟡 Attacca l'estremità sinistra al morsetto della cinghia. L'estremità della cinghia deve trovarsi a metà del morsetto.
- ❗ Il morsetto con le cinghie sarà ruotato di 180° e fissato al carrello X.

PASSO 17 Fissaggio della cinghia inferiore: fissaggio del morsetto della cinghia



- Ruota di 180° il morsetto con le cinghie e fissalo sul carrello X.
- Controlla che le cinghie siano in posizione. In caso contrario, sistemale in posizione come indicato nel passaggio precedente.
- Inserisci due viti M3x12rT e fissale con un cacciavite Torx T10.
- Ben fatto! Entrambe le cinghie sono agganciate.

PASSO 18 Belt tensioning

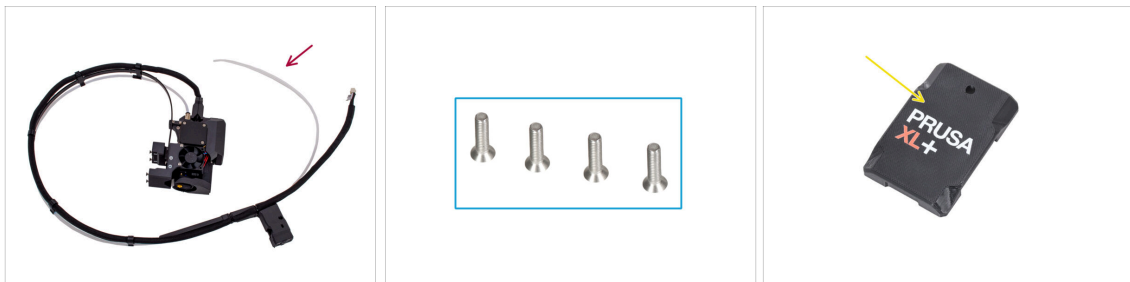


- Sul lato frontale della stampante:
- Utilizzando una chiave a brugola da 2,5 mm, stringi leggermente la vite M3 che tiene il tensionatore CoreXY sinistro.
- Utilizzando una chiave a brugola da 2,5 mm, stringi leggermente la vite M3 che tiene il tensionatore CoreXY destro.
- Non tendere completamente la cinghia, ma passa alla fase successiva, dove troverai un video sulla regolazione della tensione della cinghia.

PASSO 19 Belt tensioning: video

- Su Original Prusa XL, regolare la cinghia alla tensione ottimale è fondamentale per ottenere una buona qualità di stampa. Una cinghia poco tesa può causare lo spostamento del layer, il ghosting o altre anomalie di stampa, come l'ottenimento di una forma irregolare invece di un cerchio perfetto. Una cinghia eccessivamente tesa può causare un movimento irregolare sugli assi X e Y.
- Abbiamo il nostro accordatore di cinghie. L'applicazione determina la tensione della cinghia misurando la frequenza della vibrazione generata dal suo suono. Per regolare la cinghia, seguire le istruzioni riportate nel video sottostante.

PASSO 20 Attaching the Nextruder: parts preparation



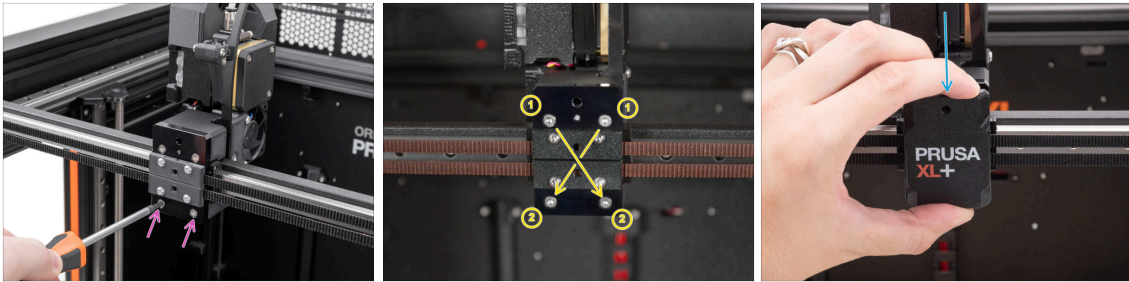
- Per i seguenti passi prepara:
- Nextruder assembly (1x)
- M3x12bT screws (4x)
- New X carriage cover (1x)

PASSO 21 Installing the Nextruder



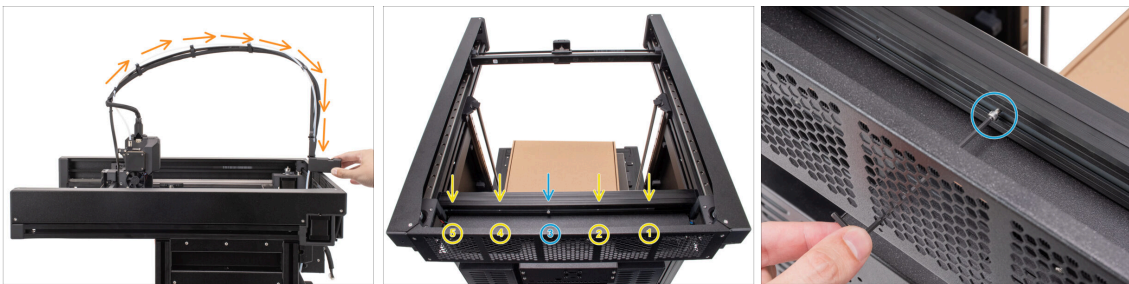
- Prepare the upgraded Nextruder assembly from chapter 2.
- From the back of the X-carriage, attach the Nextruder assembly to the X-carriage. See the correct orientation of the Nextruder.
- Hold the Nextruder and secure it by inserting and tightening the two M3x12bT screws into the top screw holes. Do not fully tighten the screws at this moment!

PASSO 22 Securing the Nextruder



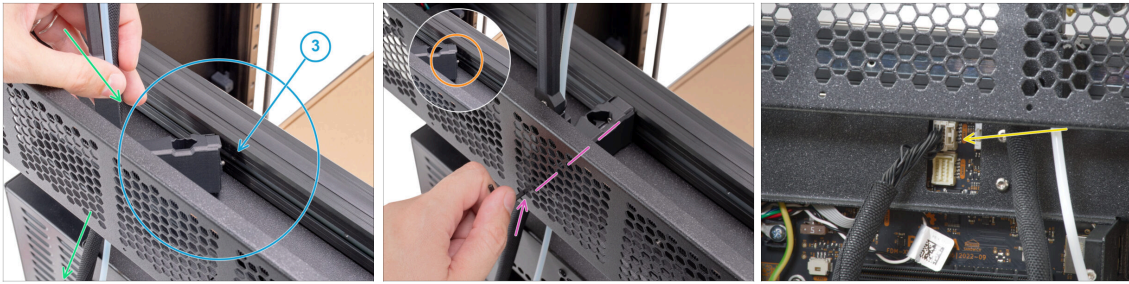
- ✦ Insert and tighten the other two M3x12bT screws to the lower holes in the X-carriage to secure the extruder assembly. **Do not fully tighten the screws at this moment!**
- ✦ After all screws are in place, tighten them in a diagonal sequence.
- ✦ Incastra il coperchio x-carriage-cover di nuovo sul carrello X. Si deve sentire un leggero "clic" per garantire che il coperchio si inserisca nella parte.

PASSO 23 Guidare il cavo del Nextruder



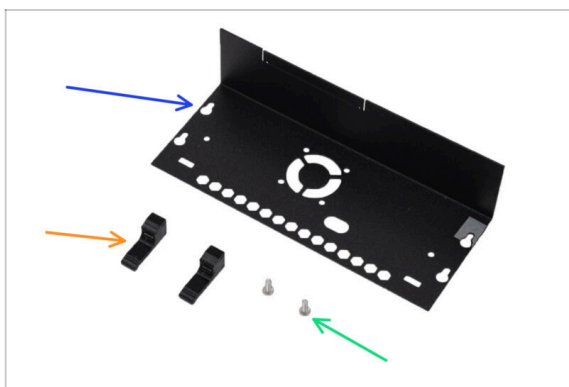
- ✦ Ruota con cura la stampante di 180° in modo che il lato dell'alimentatore (PSU) sia rivolto verso di te.
- ✦ Guide the Nextruder cable bundle with the PTFE tube over the printer to its rear side.
- ✦ Localizza il lungo profilo metallico con cinque fori M3 all'interno del profilato posteriore in alluminio.
- ⚠ **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.**
- ✦ Locate the screw in the long metal profile securing the part during transport. Using the 2.5 mm Allen key, remove the screw from the profile. You will not need it anymore, so keep it as a spare.

PASSO 24 Montaggio del dock Nextruder



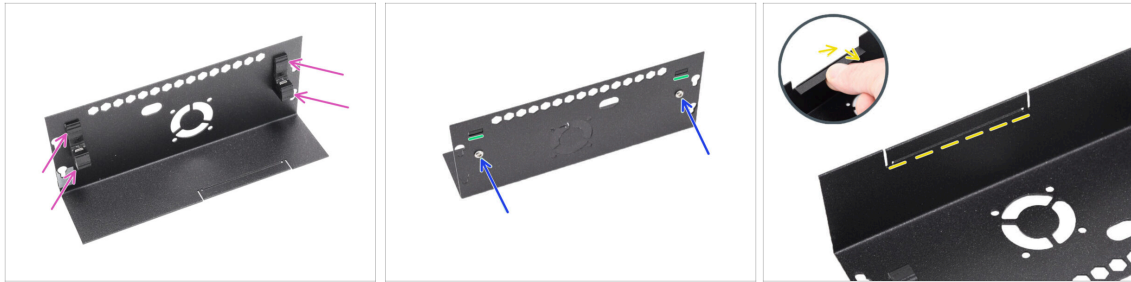
- Insert the dock assembly behind the rear metal sheet. Route the cable and the PTFE tube downward **behind the metal sheet**.
- Place the XL-dock-cable-router on the bottom metal sheet at position 3 in the metal profile. (Where we removed the screw earlier.)
- Align the protruding screw from xl-dock-cable-router with the third opening on the metal profile.
- Push the 2.5 mm Allen key all the way through a hole (bottom left in the pattern) in the rear metal sheet as well as through the plastic part until you reach the middle screw in the xl-dock-cable-router. Tighten it up.
- i **Tighten the screw firmly.** The dock is designed to be held in place by a press fit.
- Plug the dock cable to the upper slot labeled DWARF 1 in the xl-rear-cable-management-plug.

PASSO 25 New electronics cover: parts preparation



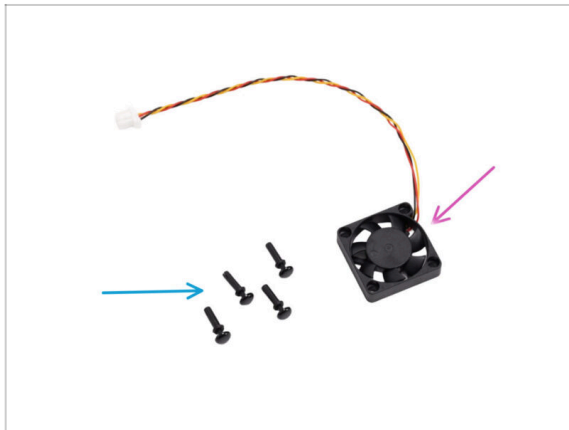
- **Per i seguenti passi prepara:**
- New XL-buddy-box-cover (1x) *electronics cover*
- Electronics-case-holder (2x) *you removed earlier*
- 📌 **Make sure both parts contain an M3nS nut.**
- M3x8rT screw (2x) *you removed earlier*

PASSO 26 Assembling the new cover



- Attach both electronics-case-holder parts to the inside of the new electronics cover.
- Make sure the tab on each part is properly seated in the cutout in the cover.
- Then secure both parts with two M3x8T screws.

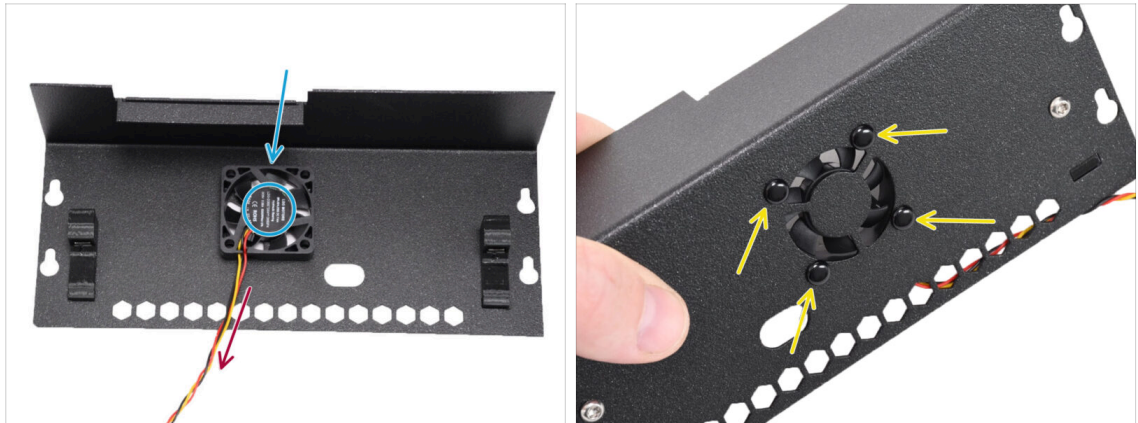
PASSO 27 XL buddy fan: parts preparation



● Per i seguenti passi prepara:

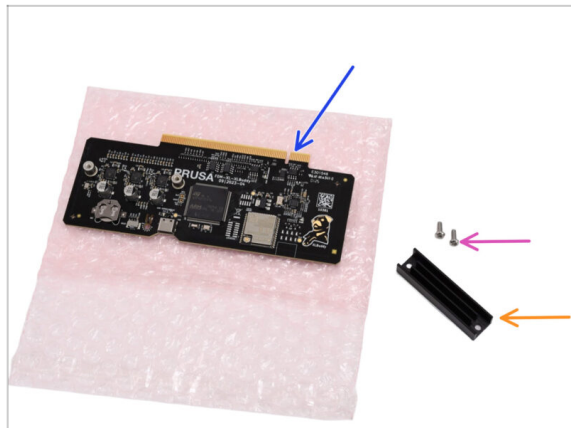
- Fan (1x)
- Long nylon rivet (4x)

PASSO 28 Installing the XL buddy fan



- From the inside of the cover, attach the XL Buddy fan.
- The sticker must face upwards.
- Route the fan cable downward as shown in the image.
- Keep the fan in position and secure it from the opposite side of the cover using four rivets. Fully press them in.

PASSO 29 XL buddy heatsink: parts preparation



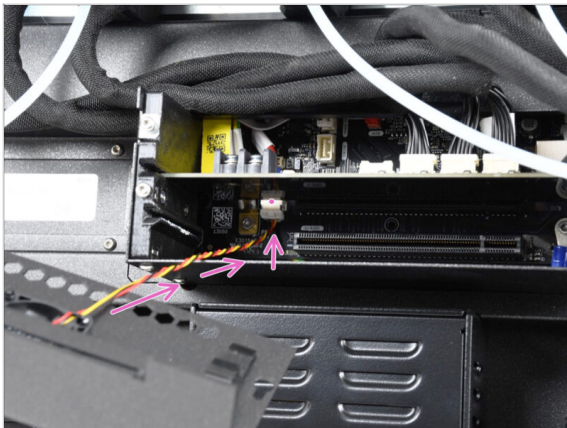
- Per i seguenti passi prepara:
- XL buddy board (1x) *you removed earlier*
- ⚠ **Touch any electronic board by its edges. Avoid damaging the board components.**
- Heatsink (1x)
- M3x8rT screw (2x)

PASSO 30 Installing the heatsink



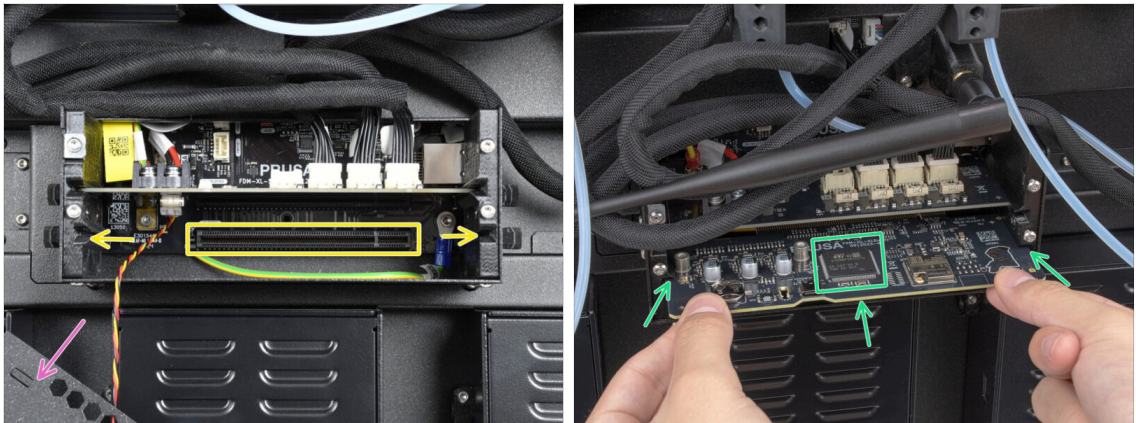
- ◆ Clean the heatsink area on the XL Buddy board using Isopropyl alcohol.
📌 **Make sure the part is in the correct orientation** and compare it with the image.
- ◆ Peel off the blue protective layer from the heatsink.
① Please note that the heatsink will become sticky after removing the protective layer.
- ◆ Place the heatsink adhesive side down on the cleaned XL Buddy board area and align it with the screw holes.
- ◆ Secure it with two M3x8rT screws.

PASSO 31 Connecting the XL buddy fan



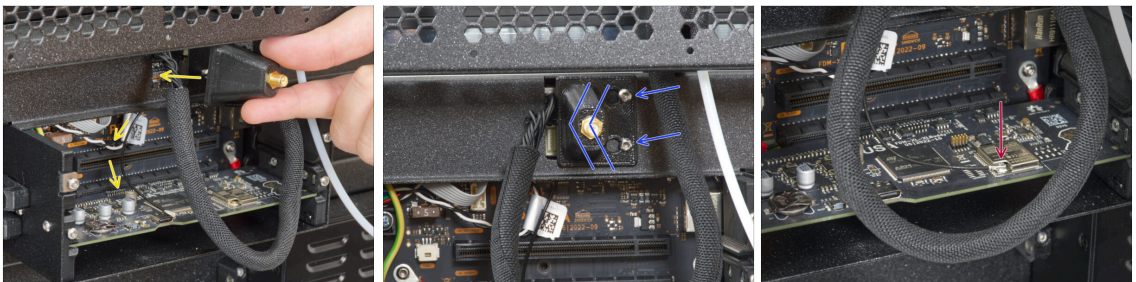
- ◆ Connect the XL Buddy fan cable to the connector below the upper slot/board.
📌 Keep the board supported at all times so the electronics cover does not hang from the fan cable.

PASSO 32 Connecting the XL buddy board



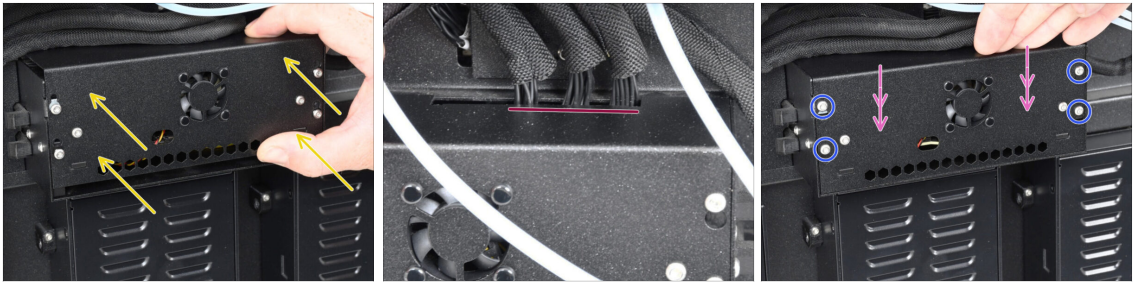
- Hold the attached electronics cover in your hand and support it so it does not hang from the cable.
- Install the XL Buddy board into the lower rails (bottom socket).
- Carefully slide the XL Buddy board into the rails and fully press it in. The microprocessor must face upward.

PASSO 33 Installare il supporto dell'antenna Wi-Fi



- Fai passare il cavo dell'antenna attraverso l'apertura del coperchio del cavo (piastra metallica) e guidalo dietro il coperchio fino alla scatola dell'elettronica.
 - Fissa il porta-antenna sulle viti e fai scorrere il coperchio verso sinistra. Stringi le viti.
 - Collega delicatamente ma con decisione il cavo dell'antenna al connettore dell'antenna sulla scheda XL buddy.
- i** Sostieni la scheda dal basso con un dito mentre attacchi il cavo dell'antenna per evitare di danneggiare la scheda.

PASSO 34 Covering the electronics



- 🟡 Install the electronics cover onto the XL Buddy box.
- ⚠️ **Make sure no cables are pinched.**
- 🟡 Slide the cover down until it properly seats on the pre-installed screws.
- 🟢 Secure it by tightening the four pre-installed screws.

PASSO 35 Rimuovere il porta bobina



- 🟢 Using the **long** 3.0mm Allen key, unscrew the M4x12 screw holding the spool holder assembly.
- 🟢 Remove the spool holder assembly.
- 📌 **If your printer uses a printed spool holder**, it is equipped with an M5 screw and an M5nEs nut in the profile.

Replace both with the supplied M4 screw and M4nEs nut before proceeding.

PASSO 36 Installare l'antenna Wi-Fi



- Individua il connettore dell'antenna Wi-Fi al centro della stampante.
- Avvita l'antenna Wi-Fi sul connettore dell'antenna. L'antenna può essere ruotata e piegata in due direzioni.
- Consigliamo di puntare l'antenna verso l'alto.
- Ottimo lavoro! Ora che hai messo l'antenna Wi-Fi, passiamo ai porta bobina nel passo successivo →

PASSO 37 Guidare il tubo in PTFE dell'estrusore



- Individua il sensore del filamento laterale sul lato della stampante. Inserisci il tubo PTFE dell'estrusore libero fino in fondo nel foro superiore del sensore del filamento.
- Tira delicatamente il tubo in PTFE all'indietro, in modo da spingere fuori il colletto nero dal sensore del filamento laterale e bloccare il tubo.

PASSO 38 New spool holder: parts preparation



- Per i seguenti passi prepara:
- Spoolholder-static (1x)
 - Puck-universal (1x)
 - O-ring (1x)
 - M4x12 screw (1x) *you removed earlier*

PASSO 39 Installing the spool holder puck



- Insert the M4x12 screw into the universal puck.
- Align the screw in the puck with the M3nEs nut in the profile.
- Make sure both tabs on the puck are inserted into the profile.
- Fully tighten the M4x12 screw.

PASSO 40 Assemblare il porta bobina



- Install the O-ring onto the spool holder.
- Insert the spool holder into the puck.
- Insert the spool holder into the puck.

PASSO 41 It's done



- ◆ Congrats! You have finished another chapter!
- ◆ Let's continue to the last one: **Finishing up.**

6. Finishing up



PASSO 1 Give us feedback



- Sappiamo che non vedi l'ora di iniziare a stampare, ma ti saremmo davvero grati se potessi dedicare 3-4 minuti per **condividere con noi le tue opinioni** su questo manuale: quanto è stato chiaro, quanto è stato facile da seguire e qualsiasi idea per migliorarlo.

① Questo feedback è un po' diverso dai soliti commenti che puoi lasciare sui singoli passi.

- **Condividi il tuo feedback qui.**

- Grazie per averci aiutato a rendere i nostri manuali ancora migliori!

PASSO 2 Before you start with Single Tool



① Questo capitolo mostra una breve descrizione della Configurazione guidata. Tieni presente che le schermate sono illustrative e potrebbero differire da quelle del firmware.

① Assicurati di utilizzare il **Firmware 6.2.4 o più recente.**

PASSO 3 Preparing the printer

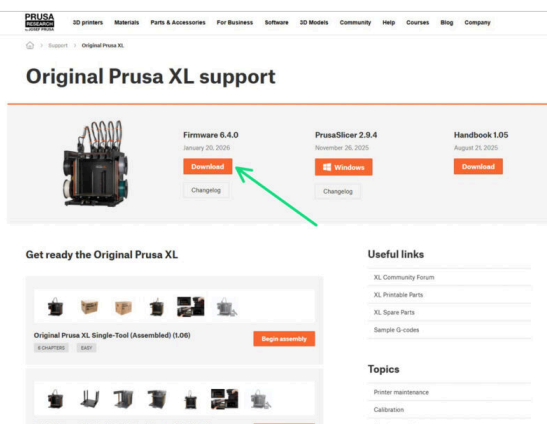
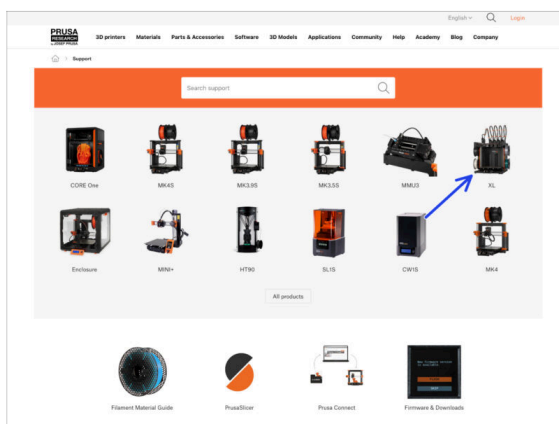


⚠ Assicurati di posizionare la stampante in un luogo stabile in cui non vengano trasmesse vibrazioni ambientali (ad esempio, dove altre stampanti stanno stampando).

✦ Inserisci il cavo di alimentazione nella parte posteriore della stampante.

✦ Accendi l'interruttore di alimentazione (simbolo "I").

PASSO 4 Firmware update



❗ Tutte le confezioni della stampante includono una chiavetta USB con il firmware più recente. Tuttavia, si consiglia di controllare ed eventualmente aggiornare la versione del firmware.

✦ Visita la pagina help.prusa3d.com.

✦ Vai alla pagina di Prusa XL.

✦ Salva il file del firmware (.bbf) sulla chiavetta USB in dotazione.

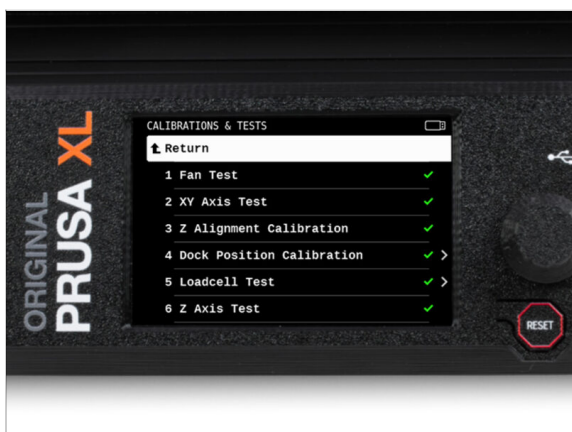
❗ Suggerimento: per accedere alla homepage di Prusa XL puoi utilizzare l'URL: prusa.io/XL

PASSO 5 Configurazione guidata: Configurazione della rete e di Prusa Connect



- ❗ Dopo l'avvio della stampante, la schermata invita a eseguire i test e il Wizard (configurazione guidata) della stampante.
- 🔧 La configurazione iniziale inizia con la configurazione di rete opzionale, che include anche la configurazione di Prusa Connect. Segui le istruzioni sullo schermo se vuoi che la stampante sia connessa al Wi-Fi e a Prusa Connect.

PASSO 6 Wizard: Calibration tests



- ❗ La Configurazione guidata (o Wizard) verifica tutti i componenti importanti della stampante. Alcune parti del wizard richiedono l'interazione diretta dell'utente. Segui le istruzioni che appaiono sullo schermo.

⚠️ **ATTENZIONE: Non toccare la stampante durante il wizard, a meno che non venga richiesto! Alcune parti della stampante potrebbero essere calde e spostarsi ad alta velocità.**

📌 La configurazione guidata inizia con questi test:

- 🔧 Fan test
- 🔧 Test degli assi X e Y
- 🔧 Z-axis alignment calibration
- 🔧 Durante la prima calibrazione, questi primi test sono completamente automatici.
- ⚠️ Durante il test degli assi, accertarsi che nella stampante non vi sia nulla che ostacoli il loro movimento.

PASSO 7 Wizard: Loadcell test



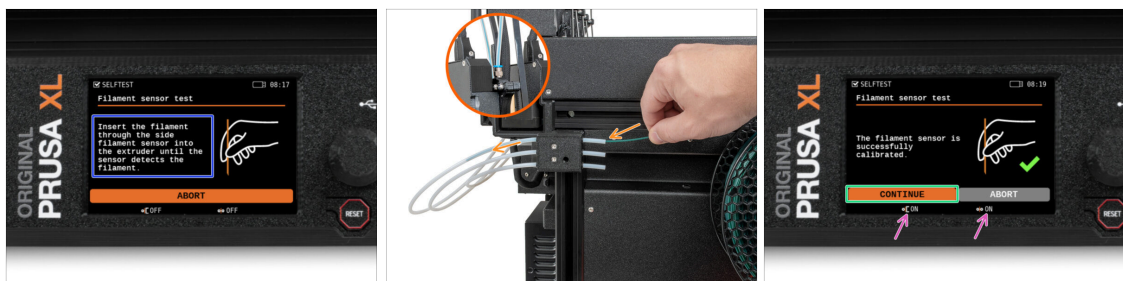
- ◆ Il passo successivo della Configurazione guidata richiede di toccare l'ugello per testare e calibrare la Cella di carico. Le parti della stampante non sono riscaldate durante questo test; è possibile toccare le parti della stampante. Fai clic su **Continua**.
- ◆ **Non toccare ancora l'ugello.** Attendi che il conto alla rovescia finisca e che la stampante ti avvisi con un suono e un messaggio sul display.
- ◆ Tocca delicatamente l'ugello ma con decisione. Non usare troppa forza. Se la cella di carico non sente il tuo tocco, ti verrà chiesto di ripetere il passaggio.
- ❗ Ripeti il test della cella di carico in base al numero di testine di stampa.
- 📌 Dopo questo passaggio, passa al **test dell'asse Z** e al **test del riscaldatore dell'ugello**. Questi due test sono automatici e richiedono pochissimi interventi.

PASSO 8 Wizard - Calibrazione dei sensori del filamento



- ◆ La stampante ti chiederà se vuoi rimappare il sensore del filamento sul terzo lato. Scegli **Sinistra**. Cambia il lato solo se non hai abbastanza spazio intorno alla stampante per il terzo porta bobina sul lato sinistro.
- ◆ Durante la calibrazione dei sensori di filamento, verrà richiesto di utilizzare almeno 130 cm di filamento. Utilizza il Prusament in dotazione con la stampante e montalo sul supporto della bobina.
- ◆ Quando hai preparato il filamento, fai clic su **Sì**.
- ◆ Attendi che la stampante ti chieda di inserire il filamento nel sensore di filamento laterale.

PASSO 9 Wizard - Calibrazione dei sensori del filamento



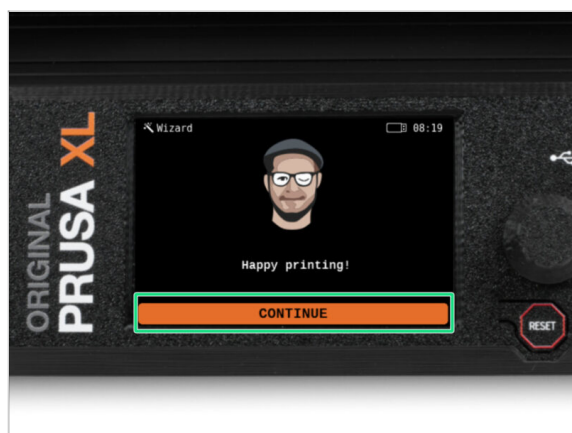
- Inserisci il filamento nel sensore di filamento laterale attraverso il tubo in PTFE. Spingilo dentro fino a raggiungere il sensore di filamento nell'estrusore (sentirai una leggera resistenza).
- È possibile controllare lo stato del sensore del filamento laterale (a sinistra) e del sensore del filamento dell'estrusore (a destra) sulla barra inferiore dello schermo.
- Alla fine del test, ti verrà chiesto di **rimuovere il filamento dal sensore**.
- i In base al numero di testine di stampa, ripeti il processo di calibrazione del sensore di filamento.
- Una volta calibrati e testati correttamente tutti e cinque i sensori di filamento, la stampante passerà alla calibrazione dell'offset dello strumento. Questo passaggio richiederà il tuo intervento. Vai al passo successivo →

PASSO 10 Wizard: Phase stepping



- **L'ultimo passo è la calibrazione del Phase Stepping.** Questa funzione è stata introdotta nella versione firmware 6.0.0. La calibrazione è automatica. Segui le istruzioni sullo schermo.
- ① Puoi trovare più informazioni sul Phase Stepping nei link qui sotto:
 - 📌 **GUIDA AL PHASE STEPPING:** Informazioni necessarie sulla calibrazione del Phase Stepping.
 - 📌 **ARTICOLO DEL BLOG SULLA PHASE STEPPING:** Uno sguardo più approfondito alla funzione Phase Stepping.
- ① La stampante sposterà la prima testina di stampa al centro del piano riscaldato e muoverà lo strumento in diagonale per gli assi X e Y a velocità diverse.
- Quando la stampante ha finito il test, lo schermo ti dirà di quanto sono diminuite le vibrazioni del motore.

PASSO 11 It's done



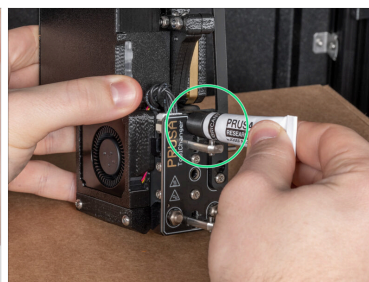
- **Questo è tutto, la stampante è pronta a stampare.** In ogni caso, segui le istruzioni di questo manuale fino in fondo.

PASSO 12 Calzino Nextruder Prusa (Opzionale)



- ❗ Il calzino Nextruder aiuta a mantenere stabile la temperatura nel blocco riscaldante. Inoltre, tiene pulito l'hotend dai residui di filamento e lo protegge nel caso in cui la stampa si stacchi dalla superficie di stampa.
- 🟡 Con ogni confezione di Nextruder viene fornito un calzino in silicone.
- ⬛ **Se vuoi installare il calzino, ti consigliamo di farlo dopo la calibrazione.**
- ❗ Come installare il calzino - controlla l'articolo.

PASSO 13 Regular printer maintenance



- ❗ Per far sì che la stampante continui a funzionare correttamente nel tempo, è consigliabile effettuare una manutenzione regolare.
- ⬛ Per la manutenzione regolare della stampante, segui l'articolo Manutenzione regolare della stampante (XL) per informazioni e istruzioni.

PASSO 14 Una veloce guida per le prime stampe

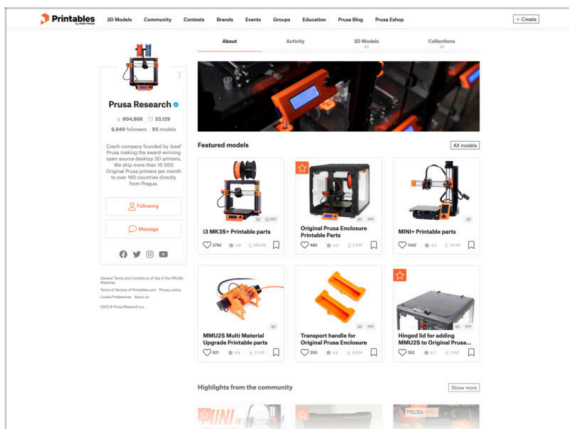


Ora leggi il Manuale di stampa 3D, creato su misura per la tua stampante, e segui le istruzioni per configurarla correttamente. La versione più recente è sempre disponibile a **questo link**.



Leggi i capitoli *Disclaimer* e *Istruzioni di Sicurezza*

PASSO 15 Printable 3D models



Congratulazioni! Ora dovresti essere pronto a stampare ;-)



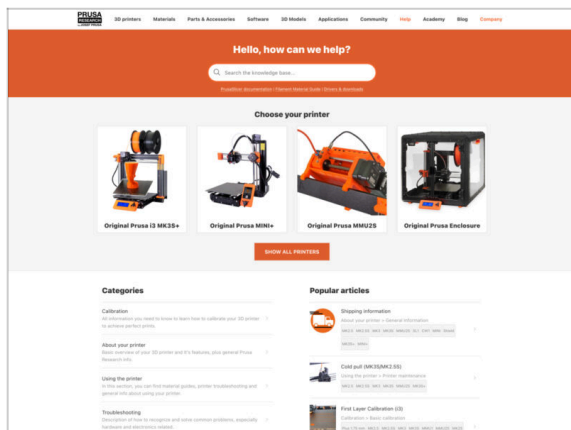
Puoi iniziare stampando alcuni dei nostri oggetti di prova contenuti nella chiavetta USB in dotazione: dagli un'occhiata in questa raccolta.

PASSO 16 Give us feedback



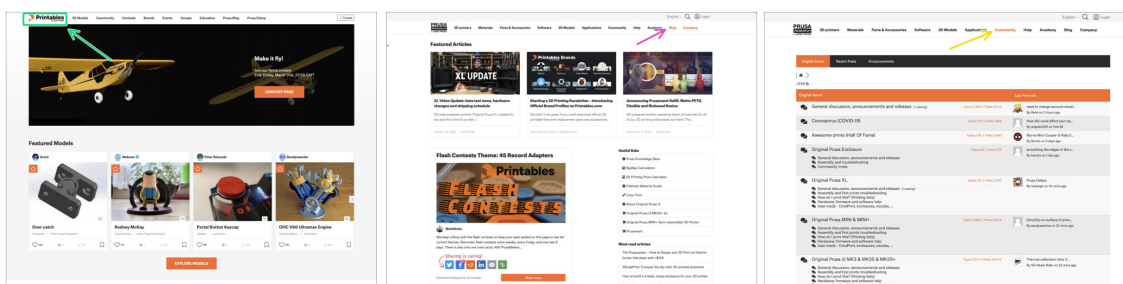
- ◆ Sappiamo che non vedi l'ora di iniziare a stampare, ma ti saremmo davvero grati se potessi dedicare 3-4 minuti per **condividere con noi le tue opinioni** su questo manuale: quanto è stato chiaro, quanto è stato facile da seguire e qualsiasi idea per migliorarlo.
 - (i) Questo feedback è un po' diverso dai soliti commenti che puoi lasciare sui singoli passi.
- ◆ **Condividi il tuo feedback qui.**
- ◆ Grazie per averci aiutato a rendere i nostri manuali ancora migliori!

PASSO 17 Prusa knowledge base



- ◆ Se incontri qualunque tipo di problema, non dimenticare che puoi dare un'occhiata alle nostre nozioni base su help.prusa3d.com
- ◆ Aggiungiamo nuovi argomenti ogni giorno!

PASSO 18 Join Printables!

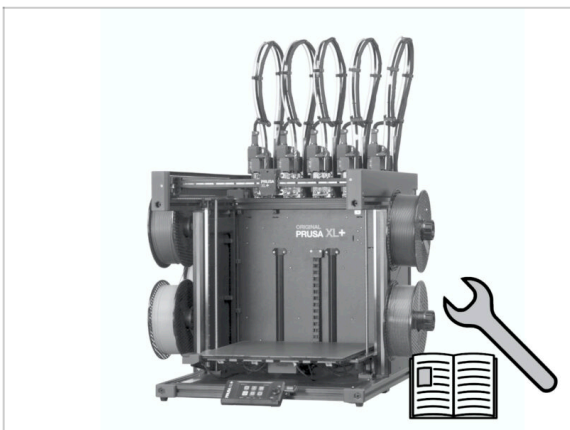


- **Non dimenticare di unirti alla community Prusa più numerosa! Scarica gli ultimi modelli in STL o i G-code fatti su misura per la tua stampante. Registrati su [Printables.com](https://www.printables.com)**
- **Cerchi ispirazione per nuovi progetti? Controlla il nostro blog per gli aggiornamenti settimanali.**
- **Se hai bisogno di aiuto nel montaggio, dai un'occhiata al nostro forum con una splendida community :-)**
- ❗ **Tutti i servizi condividono lo stesso account.**

Manual changelog



PASSO 1 Version history



- **Version history of the Prusa XL+ upgrade manual:**
- 08/2026 - Initial version 1.00

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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.

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