

Table of Contents

How to replace the main cable (CORE One/+)

.....	3
Step 1 - Introduction	5
Step 2 - Tools necessary for this guide	6
Step 3 - Moving the Z-axis	7
Step 4 - Unloading filament	8
Step 5 - Preparing the printer	9
Step 6 - Top Cover Removal	10
Step 7 - Removing the door	11
Step 8 - Accessing the LoveBoard	12
Step 9 - Disconnecting the hotend	12
Step 10 - Disconnecting the fan cables	13
Step 11 - Removing the print fan	14
Step 12 - Removing the rear cover	14
Step 13 - Disconnecting the main cable	15
Step 14 - Releasing the main cable	16
Step 15 - Accessing the electronics	17
Step 16 - Accessing the buddy board	18
Step 17 - Unplugging the main cable	19
Step 18 - Pushing the main cable inside	20
Step 19 - Removing the Main-cable-clip	21
Step 20 - Main cable: parts preparation	21
Step 21 - Attaching the main cable	22
Step 22 - Plugging in the main cable	22
Step 23 - Attaching the rear cover	23
Step 24 - Mounting the print fan	24
Step 25 - Connecting the Nextruder cables	25
Step 26 - Covering the LoveBoard	26
Step 27 - Leading the main cable	27
Step 28 - Connecting the main cable	28
Step 29 - Covering the xBuddy board	29
Step 30 - Covering the cables	30
Step 31 - Attaching the cable ties I.	30
Step 32 - Attaching the cable ties II.	31

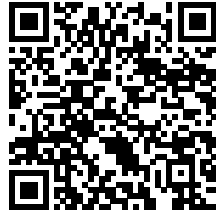
Step 33 - Attaching the main cable clip	32
Step 34 - Turning the printer ON	33
Step 35 - Final check	33

How to replace the main cable (CORE One/+)



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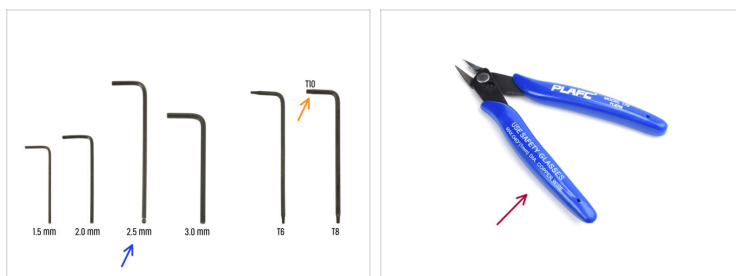


STEP 1 Introduction



- ◆ This guide will take you through the **main cable replacement** on the **Prusa Core One/Core One+**.
- ◆ All necessary parts are available in our eshop prusa3d.com.
- 📌 Note that you have to be logged in to have access to the spare parts section.
- ⓘ Note that there are two versions of the main cable. The wires can also be black and white. The replacement process is the same for both versions.

STEP 2 Tools necessary for this guide



● Please prepare tools for this guide:

- 2.5mm Allen key
- T10 Key / Screwdriver
- Flush cutters - optional tool, recommended for easier cutting of zip ties. It can be purchased from our eshop prusa3d.com.

STEP 3 Moving the Z-axis



- i** Before you begin, move the heatbed to an accessible position.
- !** During this step, **keep the printer door closed** and **do not reach inside**.
- !** In the printer menu, go to **Control -> Auto Home**.
- !** After Auto Home, move the heatbed down via **Control -> Move Axis -> Move Z** until the highlighted screws and the underside of the heatbed are accessible (minimum 200 mm).
- i** This ensures both areas will be comfortably accessible during the procedure, as they will need to be handled later in the manual.


STEP 4 Unloading filament








- **Make sure no filament is loaded in the printer.**
- To unload the filament, go to the main menu, select **Filament**, and click on **Unload filament**.
- Unload the filament from the printer.
- **Remove the filament spool** from the printer.

STEP 5 Preparing the printer



 Before you begin, make sure the **printer has cooled down**.

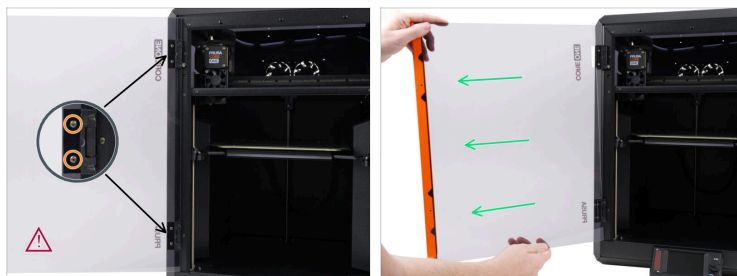
-  Turn the printer off using the switch on the back.
-  Disconnect the printer from power.
-  Remove the steel sheet.
-  Place an empty cardboard box (you can use a Prusament box) on the heatbed to protect it from damage.
-  **Remove the USB drive** to prevent damage while handling the printer.

STEP 6 Top Cover Removal



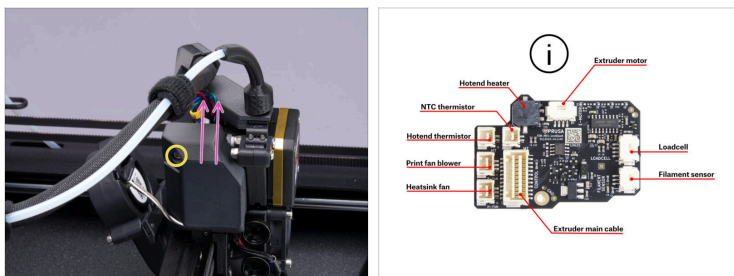
- ◆ Open the printer. From the inside, reach for the nylon rivet on the front right of the top cover. Push it out to unlock it.
- ◆ Remove the rivet from the outside.
- ◆ Remove the remaining nylon rivets on the top cover using the same technique.
- ◆ Remove the top cover.

STEP 7 Removing the door



- i** We highly recommend that you remove the door. This will make moving and turning the printer a lot easier and safer.
- ◆** Using the T10 key, remove two M3x5rT screws securing the door panel in both hinges.
- ⚠** It is essential to **hold the door panel securely while loosening the screws to prevent it from falling.**
- 📌** Start removing the screws from the lowest.
- Carefully slide the door panel out of the hinges.
- Place the door panel and the four screws in a clean and safe area to avoid any damage.

STEP 8 Accessing the LoveBoard



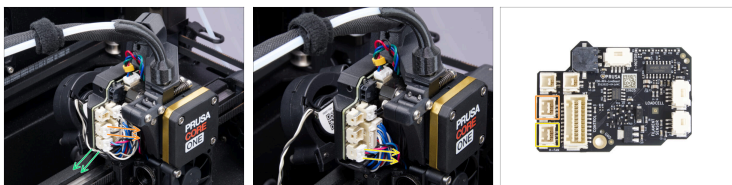
- ◆ Using the 2.5mm Allen key, remove the M3x10 screw on the Printhead-cover-left.
- ◆ Remove the Printhead-cover-left.
- ⓘ Note the LoveBoard scheme for future reference.


STEP 9 Disconnecting the hotend






- ⚠ **It is necessary to press the safety latch before disconnecting the cables.** Otherwise, you risk damaging the connector.
- ◆ Disconnect the hotend heater cable.
- ◆ Disconnect the hotend thermistor cable.

STEP 10 Disconnecting the fan cables



 **Press the safety latch before disconnecting the cables. Otherwise, you risk damaging the connector.**

-  Press the safety latch and disconnect the print fan cable.
-  Pull the cable out of the ridge at the bottom and let it hang on the side.
-  Press the safety latch and disconnect the heatsink fan.

STEP 11 Removing the print fan



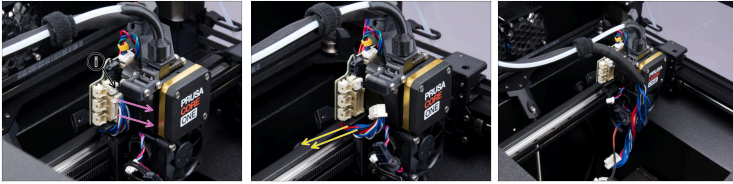
- ◆ On the other side of the Nextruder, use the 2.5mm Allen key to remove two M3x6 screws.
- ◆ Remove the Printhead-cover-right.
- ◆ Use the 2.5mm Allen key to remove the M3x20 screw holding the print fan.
- ◆ Remove the print fan.

STEP 12 Removing the rear cover



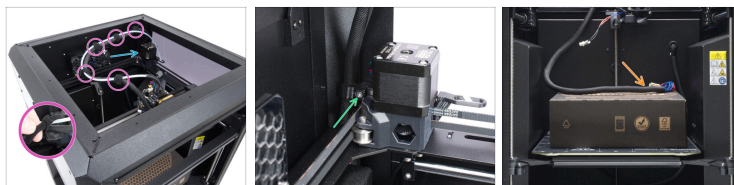
- ◆ Use the 2.5mm Allen key to remove two M3x10 screws that hold the Printhead-cover-rear.
- ◆ Remove the Printhead-cover-rear.
- ◆ Dislodge the main cable from the channel on top of the Nextruder.

STEP 13 Disconnecting the main cable



- ◆ Press the safety latch and disconnect the main cable.
- ⓘ Disconnecting the NTC thermistor cable is optional. Only do so if the cable is in the way.
- ◆ Move the main cable around the ridge under the LoveBoard.
- ◆ Leave the main cable hanging for now.

STEP 14 Releasing the main cable



- ◆ Release the five cable straps.
- ◆ Focus on the area behind the Y-axis motor on the right side of the printer.
- ◆ Using a 2.5 mm Allen key, remove the M3x10 screw securing the Main-cable-clip.
- ⓘ Leave the Main-cable-clip attached to the main cable. Only remove the screw, so the inside of the printer does not get scratched.
- ◆ Place the main cable on the cardboard box on the heatbed.

STEP 15 Accessing the electronics



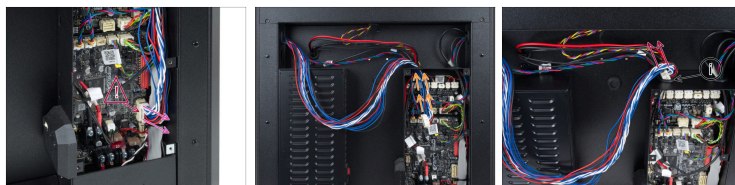
- ◆ Inside, on the back panel of the printer, remove two M3x4rT screws using the T10 Key.
- ◆ On the back of the printer, slide the center cover downwards.
- ◆ Make sure that all four pegs are removed from the back panel.
- ◆ Carefully tilt the cover and remove it from the printer.







STEP 16 Accessing the buddy board



- ◆ Use flush cutters to remove all zipties that secure the cables. **Be very careful not to cut any cables.**
- ◆ Using the T10 Key, remove all six M3x4rT screws securing the xBuddy box cover.
- ◆ Pull the xBuddy box cover towards you and remove it from the printer.
- ◆ Use flush cutters to remove three zipties that secure the cables inside the Buddy board case. **Be very careful not to cut any cables.**

STEP 17 Unplugging the main cable



-  **The cable connector has a safety latch. It is necessary to **press the latch before disconnecting the cable.****
-  Press the safety latch and disconnect the main cable from the xBuddy board.
-  Route the main cable out of the xBuddy box through the opening at the top.
-  The Nextruder main cable may pass through either the right or left opening, depending on when the printer was assembled.
-  Turn the main cable sideways to remove it through the opening.
-  You can temporarily remove the plastic grommet to create more space for the cable to pass through. Be careful not to damage the cable connector.

STEP 18 Pushing the main cable inside



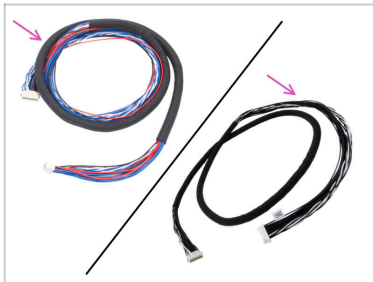
- Route the main cable through the upper oval opening into the printer. Gently pull on the cable on the inside of the printer.
- Turn the main cable connector sideways and carefully push it through the opening.
- On the inside, push the main cable connector through the opening between the CoreXY assembly and the printer.
 - ⓘ It is a tight fit; be patient and careful. Push the connector from the bottom to help it get through.
- Once the main cable is free, remove it from the printer.

STEP 19 Removing the Main-cable-clip



- Very carefully open the Main-cable-clip. The plastic is flexible, however it might break.
- Remove the Main-cable-clip from the main cable and set it aside. We will need it later.

STEP 20 Main cable: parts preparation



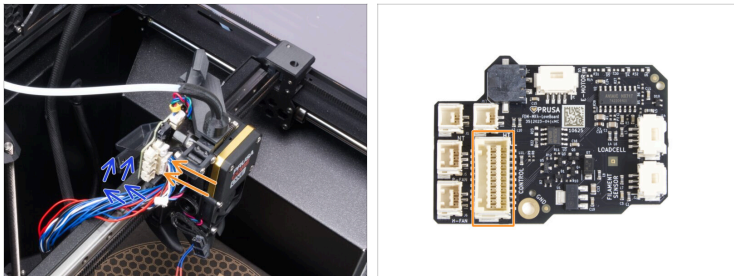
- For the following steps, prepare:
 - New main cable

STEP 21 Attaching the main cable



- ◆ Note that the cable sleeve is closer to the connector on one end. Use this end in the next step.
- ◆ Turn the main cable connector sideways and gently push it through the opening in the rear of the printer.
- ◆ On the inside, thread the main cable through an opening behind the CoreXY assembly in the right rear corner

STEP 22 Plugging in the main cable



- ◆ Plug the main cable into the LoveBoard. Ensure that the safety latch clicks in place.
- ◆ Move the main cable through the ridge under the Love Board.

STEP 23 Attaching the rear cover



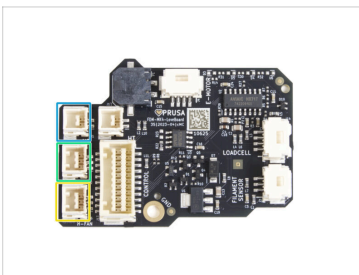
- ◆ Guide the main cable through the cable channel above the LoveBoard.
- ⓘ Twist the cable sleeve slightly to ensure that it will fit into the cable channel.
- ◆ The end of the textile sleeve must align with the edge of the plastic part.
- ◆ Attach the Printhead-cover-rear.
- ⚠ **Ensure that no cables get pinched or damaged when attaching the Printhead-cover-rear.**
- ◆ Secure the Printhead-cover-rear in place with two M3x10 screws.

STEP 24 Mounting the print fan



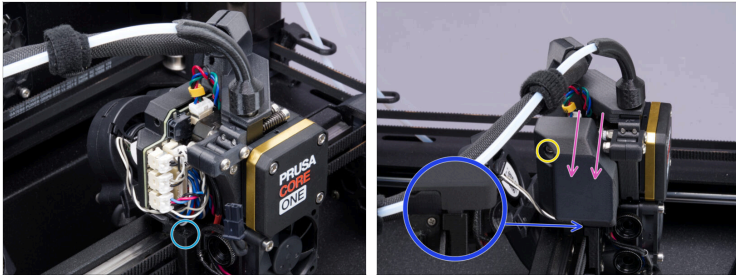
- Mount the print fan onto the Fan-shroud.
- Secure the print fan in place with the M3x20 screw.
- Loop the cable tie around the PTFE tube and main cable as shown in the photo.
- Tighten the cable tie as much as possible.
- Attach the Printhead-cover-right.
- Secure the Printhead-cover-right with two M3x6 screws.

STEP 25 Connecting the Nextruder cables



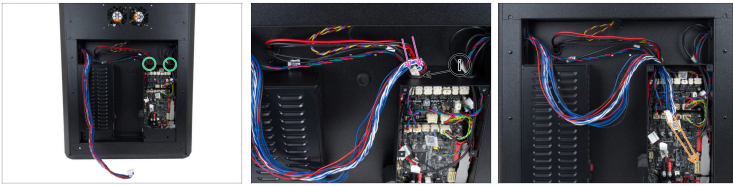
- Connect the hotend thermistor cable.
- Connect the print fan cable.
- Connect the hotend fan cable.
- ⚠ **Ensure that the safety latch clicks in place on each connector.**
- Push the print fan cable into the channel in the plastic cover.

STEP 26 Covering the LoveBoard



- ◆ Note the slot on the bottom of the Nextrunder.
- ◆ Insert the protrusion on the underside of the Printhead-cover-left into the slot on the bottom of the Nextrunder.
- ◆ Attach the Printhead-cover-left.
- ◆ Secure the Printhead-cover-left with one M3x10 screw.

STEP 27 Leading the main cable



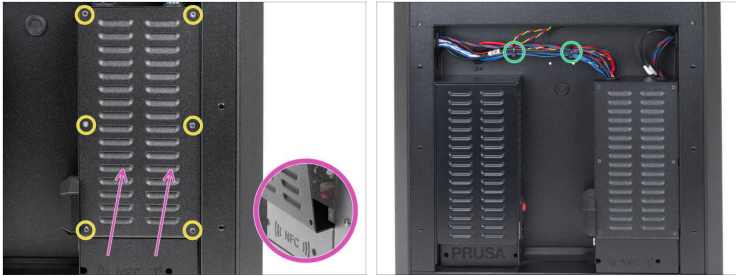
- ◆ You can lead the new main cable through either the right or left opening in the xBuddy case. We will leave this to your preference.
- ◆ Turn the main cable connector sideways to insert it through the opening.
- ⓘ You can temporarily remove the rubber grommet to create more space for the cable to pass through. Be careful not to damage the cable connector.
- ◆ Once the main cable connector is through, pull it in all the way towards the connector in the xBuddy board.

STEP 28 Connecting the main cable



- ◆ Connect the main cable to the xBuddy board
- ⚠ Ensure that the safety latch clicks in place to secure the main cable connector to the xBuddy board.
- ◆ Secure the cables with three zip ties. Carefully cut the excess; **avoid cutting the cables.**

STEP 29 Covering the xBuddy board



- ◆ Carefully cover the xBuddy box by first sliding the bent part of the cover into the box.
- ◆ Avoid pinching the cables, and make sure the cover is inserted perpendicular to the xBuddyboard.
- ◆ Secure the xBuddy box cover using the six M3x4rT screws.
- ◆ Wrap two zipties around the cable bundle on the top to keep the cables tidy and secured.
- 📌 Carefully cut the excess; avoid cutting the cables.

STEP 30 Covering the cables



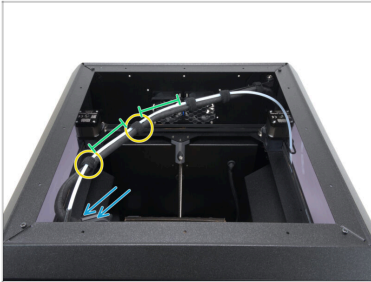
- Align the rear sheet metal cover so that the cables can run through the platform.
- Push the rear cable cover toward the printer, then move it upward.
- Ensure that the cable cover slides into the four openings in the printer rear cover.
- From the inside of the printer, secure the rear cover in place using two M3x4rT screws from inside the printer.

STEP 31 Attaching the cable ties I.



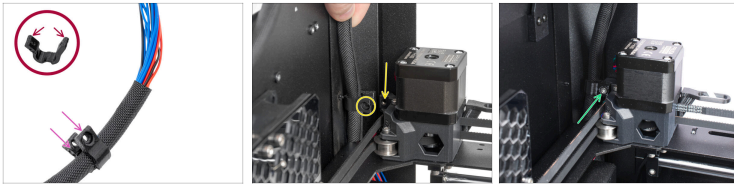
- Note the three ridges on the swing arm in the top rear right corner.
- Tightly wrap the cable tie around the furthest ridge. **Do not include the PTFE tube.**
- Add two more cable ties, ensuring that you **include the PTFE tube** as shown in the pictures.

STEP 32 Attaching the cable ties II.



- Move the Nextruder all the way to the front left corner to make sure that the main cable can reach all over the print area.
- Wrap the two remaining cable ties around the PTFE tube and main cable and tighten them.
- Leave a 10 cm (3.94 in) distance between the last two cable ties.

STEP 33 Attaching the main cable clip



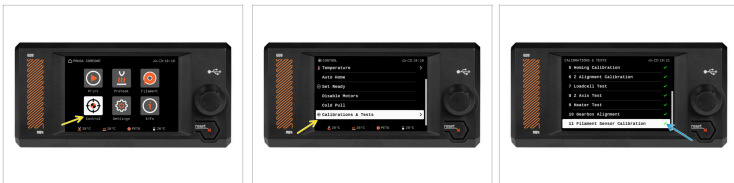
- i** We recommend adding the cable clip only once the new main cable is connected on both sides .
- ◆** Carefully open the Main-cable-clip. **Be careful not to snap the part in half.**
- ◆** Insert the main cable into the Main-cable-clip.
- ◆** Ensure the correct orientation of the Main-cable-clip. The side with the wider opening faces outward so the screw can be inserted.
- ◆** Secure the Main-cable-clip in place with the M3x10 screw.

STEP 34 Turning the printer ON



- Remove the box that is protecting the heatbed.
- Place the print sheet onto the heatbed. Align the rear cutout with the locking pins on the back of the heatbed.
- Connect the power cable and plug the printer into an outlet.
- Turn the print ON ("I" symbol).

STEP 35 Final check



- We recommend testing the printer to make sure that the main cable was replaced successfully.
- In the main menu, select **Control -> Calibrations & Tests** and run the self test.
- Follow the on-screen instructions until all tests pass with a green check mark.
- Congratulations, you have successfully replaced the main cable.
