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How to replace a Hotend Heater (CORE One)




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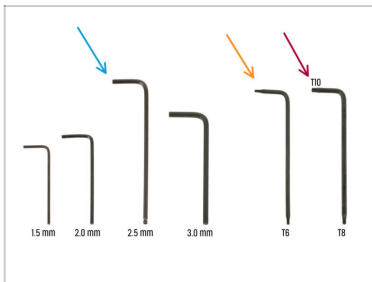


STEP 1 Introduction



- This guide will take you through the **Hotend heater replacement** on your Original Prusa **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.

STEP 2 Tools necessary for this guide



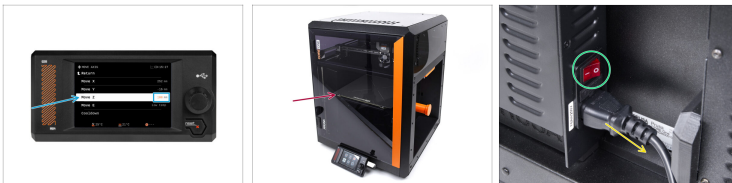
- **Please prepare tools for this guide:**
 - 2.5mm Allen key
 - T6 Key
 - T10 Key / Screwdriver

STEP 3 Printer Preparation (Part 1)



- ◆ Close the printer's door.
- ◆ Unload the filament. Visit the menu **Filament** and select **Unload filament**.
- ◆ Unload the filament from the printer.
- ◆ Remove the filament spool from the printer.
- ⚠ **Ensure the printer has completely cooled down.**
 - ◆ On the printer screen, navigate to *Preheat* -> *COOLDOWN* and wait for the temperatures to drop to ambient levels. This may take several minutes.

STEP 4 Printer Preparation (Part 2)



- ◆ Open the menu **Control > Move Axis > Move Z** and set it to 100mm or more.
- ◆ Wait until the heatbed moves down.
- ◆ Turn the printer off using the switch on the back.
- ◆ Disconnect the printer from power.

STEP 5 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.
- 🟡 Then, remove the rivet from the outside.
- 🟢 Remove the remaining nylon rivets on the top cover using the same technique.
- 🟣 Remove the top cover.

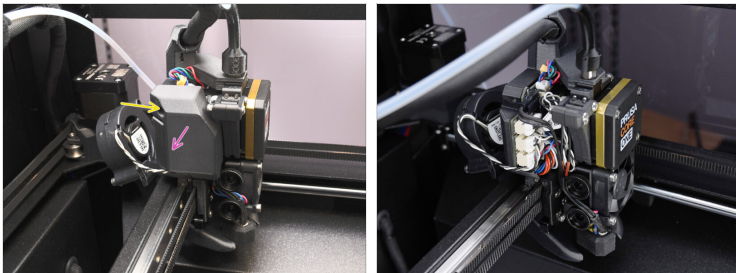
STEP 6 Heatbed Protection



⚠ Before proceeding any further, it is recommended to protect the heatbed first!

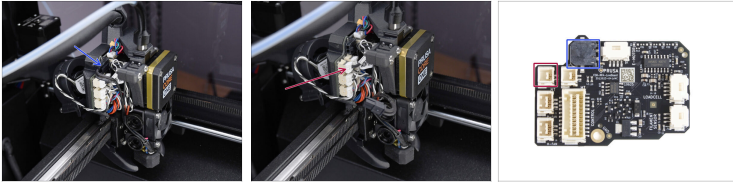
- Use a piece of fabric or other material thick enough to cover the heatbed. This will ensure you won't damage (scratch) the surface during the process.


STEP 7 Nextruder Uncovering





- Let's move onto the left side of the Nextruder.
- Using the 2.5mm Allen key, remove the M3x10 screw holding the side cover.
- Remove the cover.

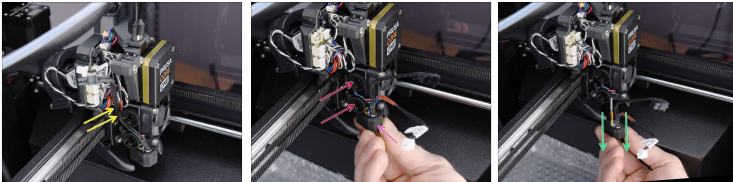
STEP 8 Cables Disconnecting








 Each connector has a safety latch. **It is necessary to press the latch before disconnecting.** Otherwise, the connector may get damaged.

-  Disconnect the hotend heater cable.
-  Disconnect the hotend thermistor cable.

STEP 9 Hotend Assembly Removal



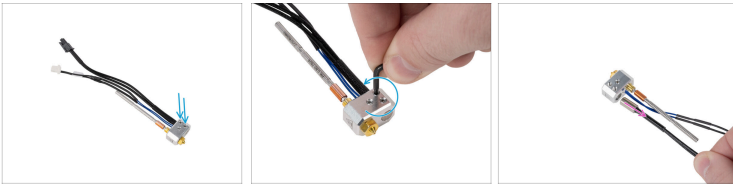
-  Remove the hotend cables from the cable guide.
-  Grasp the hotend with your hand.
-  Use your other hand to loosen the two thumb screws. **There is no need to remove them completely**, a few turns are enough.
-  Watch out, the hotend assembly may fall out!
-  Slide out the hotend assembly from the heatsink.

STEP 10 Silicone Sock Removal



- Remove the Silicone sock, if you are using one.

STEP 11 Heater Removal



- Using the T6 Torx key loose the marked screws holding the heater.
- Remove the heater from the heaterblock.

STEP 12 Heater Preparation



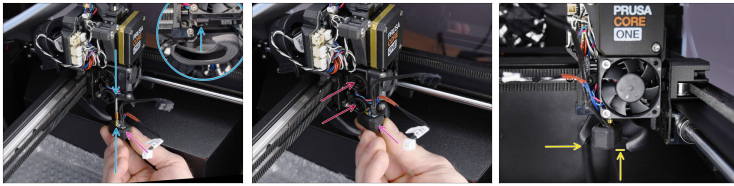
- **For the following steps, prepare:**
- ◆ New hotend heater (1x)
- ◆ New grub screws M3x4bT (2x)

STEP 13 Heater Assembly



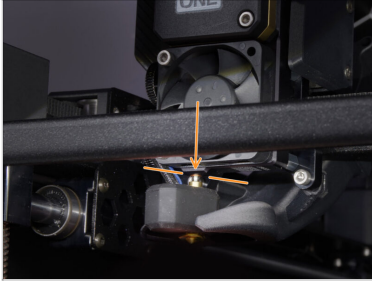
- ◆ Insert new grub screws and screw them in using the TX6 key. A few turns are enough for now.
- ◆ Insert the new heater all the way into the heaterblock.
- ◆ Align the bottom surface of the heater with the bottom surface of the heaterblock.
- ⚠ **Make sure your heater is aligned with the bottom side of the heaterblock.**
- ◆ Using the longer side of the TX6 key, gently tighten two grub screws while keeping the heater in position. Do not overtighten.
- ◆ Reinstall the silicone sock, if you are using one.

STEP 14 Hotend Insertion



- ◆ Locate the corresponding opening on the bottom of the extruder heatsink and fully insert the hotend into the heatsink.
- ◆ At the same time, keep the hotend cables pointing to the front, at a slight angle.
- ⓘ Ensure that there is enough free space between the new hotend assembly and the fan shroud.
- ◆ Keep pushing the hotend assembly upward and tighten both thumbscrews to secure it in place.
- ◆ Ensure the hotend is fully inserted into the heatsink. It should align as shown in the picture and must not protrude below the fan shroud.

STEP 15 Nozzle Insertion Check

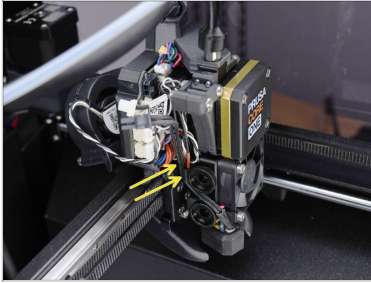


- Verify that the nozzle is **fully inserted** into the heatsink. The copper ring on the nozzle should not be visible if properly seated.

⚠ If not fully inserted, it can cause poor heat transfer, potentially leading to nozzle clogs.

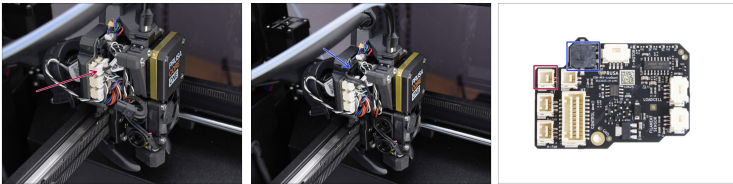
i To adjust the nozzle position, loosen the thumbscrews, reposition the nozzle, and then retighten the screws, while pushing the hotend assembly up.

STEP 16 Hotend Cables Guidance



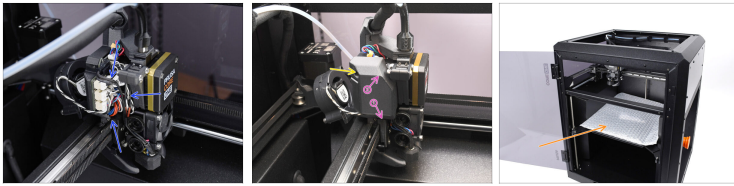
- Locate the cable guide (plastic hook) behind the thumb screws. Guide the thermistor cable through the channel first. Then insert the hotend heater cable.

STEP 17 Cables Connection



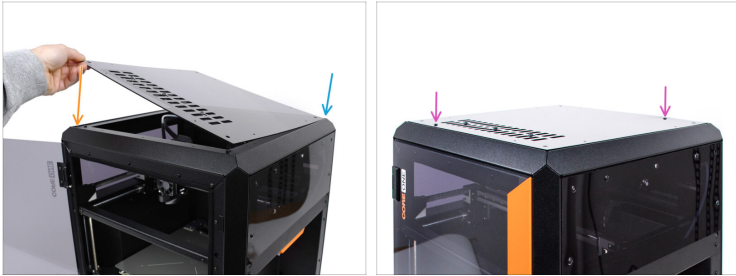
- Connect the hotend thermistor to the top left slot on the LoveBoard.
- Connect the hotend heater to the black slot on the upper part of the LoveBoard.

STEP 18 Nextruder Cover



- ◆ Organize the cables to ensure they do not protrude.
- ◆ Attach the cover to the left side of the Nextruder assembly.
 - ◆ Hook it at the bottom first.
 - ◆ Push it towards the Nextruder.
- ◆ Fix the cover in place using the M3x10 screw.
- ◆ Remove the protective material from the heatbed.

STEP 19 Top Cover



- Now, we can reinstall the top cover.
- Align the cover with the metal frame in the far-right corner.
- Align the cover with the recess in the front part as well
- Secure the cover in place using two nylon rivets in the marked openings.


STEP 20 Turning the Printer On









- Close the door.
- Connect the printer to electricity.
- Turn the printer on.

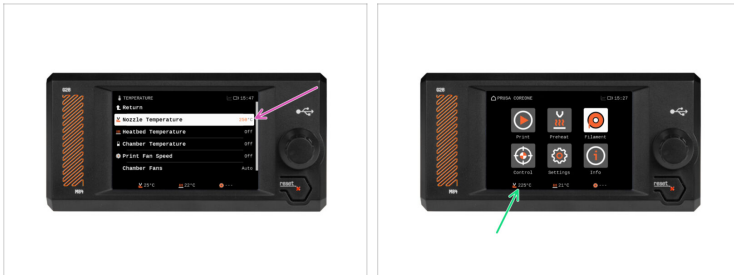
STEP 21 Nozzle Set Up



 This step is important only if you changed your nozzle diameter or type.

-  Visit the **Settings > Hardware > Printhead** menu
-  Select the **Nozzle diameter** you are using (e.g. 0.25 / 0.3 / 0.4 / 0.5 / 0.6 / 0.8)
 -  On CORE One, the 0.40 mm nozzle is the stock size.
-  Turn on the **Silicone sock** option if you are using one.
-  Select a nozzle type.
 -  On CORE One, the High Flow nozzle is a default.

STEP 22 Final check



- ◆ To verify the connections, navigate to **Control > Temperature > Nozzle Temperature** and set it to above 200°C.
- ◆ Return to the main screen and check the bottom bar to ensure the temperature is rising as expected.



Great job! You can now resume using your printer.
