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# How to replace the Prusa Nozzle (CORE One L)



[help.prusa3d.com/g934733](https://help.prusa3d.com/g934733)

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chapter.**



## STEP 1 Introduction



◆ **This guide will take you through the nozzle replacement on your Prusa CORE One L.**

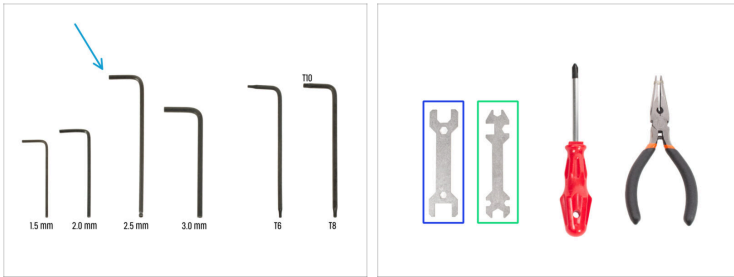
ⓘ The following instructions are compatible with all Prusa nozzle diameters.

◆ All necessary parts are available in our eshop [prusa3d.com](https://prusa3d.com).

📌 Note that you have to be logged in to have access to the spare parts section.

ⓘ Keep all the fasteners that you remove from the printer during the replacement process at hand; they will be reused.

## STEP 2 Tools necessary for this guide



### ● Prepare these tools for this guide:

- 2.5mm Allen key
- Wrench 13-16
- Universal wrench

## STEP 3 Printer preparation (part 1)



- 🟠 Close the door.
- 🟡 Navigate the screen to **Filament -> Unload filament**
- 🟢 Unload the filament from the printer.
- ⬛ Remove the filament spool from the printer.
- ⚠️ **Ensure that 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)



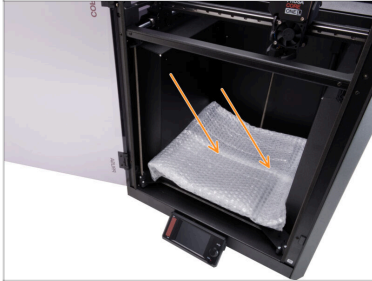
- 🟡 Open the menu **Control -> Move Axis -> Move Z** and move the heatbed all the way down.
- 🟠 Wait until the heatbed moves down.
- 🟢 From the rear side of the printer, unplug the PSU cable.
- 🟢 Flip the power switch OFF (symbol "O").

## STEP 5 Removing the printer top cover



- ◆ Open the door and reach in to the front of the top cover.
- ⓘ The cover is held in place by a set of plastic security latches.
- ◆ Locate two of the plastic latches at the bottom front of the cover. Squeeze them together simultaneously.
- ◆ Lift the front of the cover just enough to unhook it from the printer and pull the cover 2 cm / 0.8 inch towards you.
- ◆ Remove the top cover from the outside.

## STEP 6 Protecting the heatbed



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

- Use a piece of fabric, cardboard, bubble wrap, or any soft material to cover the heatbed. This will prevent damaging the heatbed/print sheet during the process.

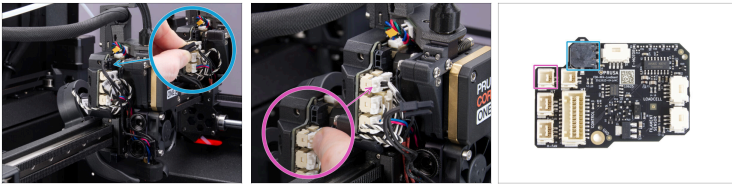
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## STEP 7 Accessing the hotend cables





- Adjust the printer so you have access to the left side of the Nextrunder.
- Using the 2.5mm Allen key, remove the M3x10 screw on top of the Printhead-cover-left (cover).
- Remove the cover.

## STEP 8 Disconnecting the hotend cables







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

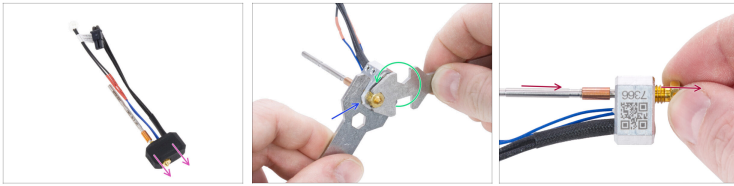
-  Press the safety latch and pull the hotend heater cable out.
-  Press the safety latch and pull the hotend thermistor cable out.

## STEP 9 Removing the hotend assembly



-  Unhook the hotend cables from the plastic cable guide behind the two thumb screws.
-  Hold the hotend with your hand to prevent it from falling down.
-  Use your other hand to loosen the two thumb screws with a few turns. **Do not remove them completely.**
-  Pull the hotend assembly down from the heatsink.

## STEP 10 Removing the nozzle



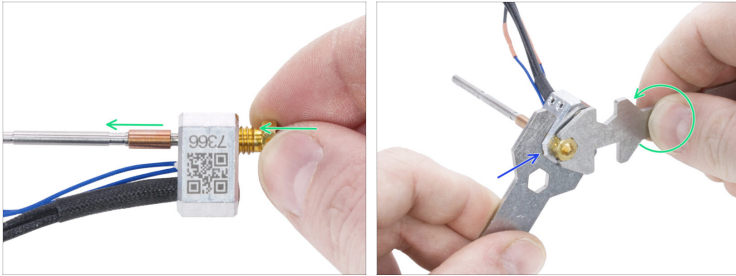
- ◆ Remove the silicone sock from the heater block.
- ◆ Use the 13-16 wrench to hold the heater block in place.
- ◆ Use the 7mm cutout in the universal wrench to loosen the nozzle.
- ◆ Manually unscrew and remove the nozzle from the hotend assembly.
- ⓘ We recommend discarding the old nozzle immediately to avoid confusing it with the new one.

## STEP 11 New nozzle parts preparation



- ◆ **For the following steps, prepare:**
- ◆ New nozzle (1x)
- ⓘ See the [Different Nozzle Types](#) article for more info on the available options.

## STEP 12 Installing the new nozzle



- ◆ Screw the new nozzle fully into the heater block until it touches the heater block surface.
  - ◆ Hold the heater block in place using the 13-16 wrench.
  - ◆ Use the 7mm cutout in the universal wrench to tighten the nozzle against the heater block. **Avoid applying excessive force!**
- ⓘ The specified torque value is 1.5 Nm (13.3 lb-in). The use of a torque wrench is recommended.

## STEP 13 Reattaching the silicone sock



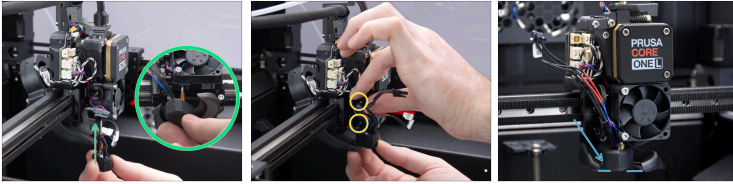
◆ With the new nozzle in place, reattach the silicone sock.

ⓘ The CORE One L hotend assembly comes with a Nextruder silicone sock installed by default. However, the silicone sock is optional.

◆ For more information, read this article: [Nextruder Silicone Sock](#).

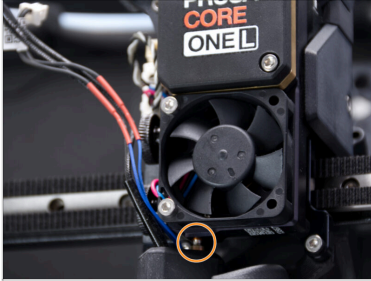
📌 The default nozzle on the CORE One L is the 0.4mm HF, (High Flow version) labeled CHT

## STEP 14 Inserting the hotend



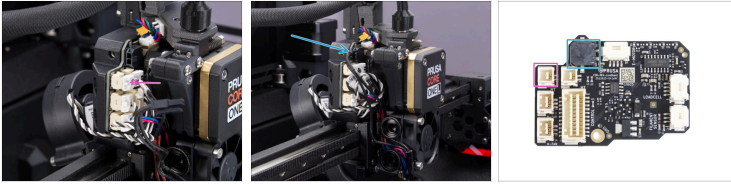
- ◆ Locate the hole on the bottom of the heatsink and insert the hotend assembly.
- ⓘ Ensure that there is enough free space between the new hotend assembly and the fan shroud.
- ◆ Tighten both thumbscrews once the hotend assembly is completely inserted in the Nextruder.
- ◆ Double-check that the hotend is fully inserted into the heatsink. It has to align with the fan shroud.

## STEP 15 Checking the new nozzle



- ✦ **Verify that the nozzle is fully inserted** into the heatsink. The copper ring on the nozzle has to be barely visible.
- ⚠ **If not inserted properly, the nozzle can cause poor heat transfer and potentially lead to nozzle clogs.**
- ⓘ To adjust the nozzle position, loosen the thumbscrews and push the hotend assembly up. Then tighten the thumbscrews again.

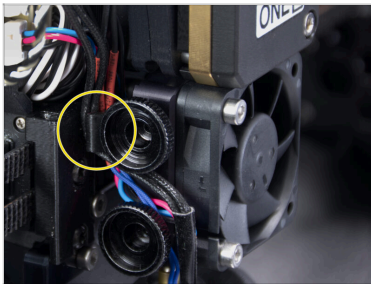
## STEP 16 Connecting the hotend cables



- ◆ Connect the hotend thermistor cable to the top left slot on the love board. Ensure that the safety latch clicks securely into place.
- ◆ Connect the hotend heater to the black slot on the upper part of the love board. Ensure that the safety latch clicks securely into place.

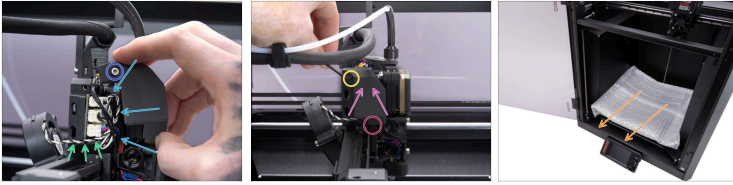
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## STEP 17 Guiding the hotend cables



- ◆ Insert the hotend cables behind the plastic cable guide hook. Guide the thermistor cable first, then the hotend heater cable.

## STEP 18 Attaching the Printhead-cover-left



- ◆ Organize the cables to ensure they are not sticking out to prevent pinching them once you attach the Printhead-cover-left (cover).
- ◆ Ensure that the print fan cable is led through the ridge in the plastic Printhead-cover-rear.
- ◆ Tip: Prepare the M3x10 screw and set it up in the cover before attaching the cover.
- ◆ Insert the cover into the bottom slot in the Printhead-cover-rear first.
- ◆ Place the cover onto the Nextrunder.
- ◆ Fix the cover in place using the M3x10 screw.
- ◆ Remove the protective material from the heatbed.


## STEP 19 Attaching the printer top cover






- Place the cover on the printer with the ventilation grille in the front and slide the cover towards the back.
- Align the cover so that the two plastic latches at the rear of the cover slide in and lock the cover in place.
- Once the back is secured in place, lower the front of the cover and gently push the cover down, so the front latches will snap in place.

## STEP 20 Turning the printer on



 Make sure that the printer is placed in a stable place where no ambient vibrations are transmitted (for example, where other printers are printing).

-  Close the door.
-  From the rear side of the printer, plug in the PSU cable.
-  Turn the power switch ON (symbol "I").

## STEP 21 Nozzle set up



**⚠** This step only applies if you changed the nozzle diameter or type. If you did not, continue to the next step.

- Navigate the screen to **Settings -> Hardware -> Printhead**.
- Select the **nozzle diameter** you are using (e.g. 0.25 / 0.3 / 0.4 / 0.5 / 0.6 / 0.8)
  - ① On CORE One L, the 0.40 mm is the default nozzle.
- Turn on the **silicone sock** option if applicable.
- Select the **nozzle type**.
  - ① On CORE One L, the high flow nozzle is the default version.

## STEP 22 Final check



- ◆ To verify the correct connection of the cables, navigate the screen 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 just replaced the nozzle on your PRUSA CORE One L.



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