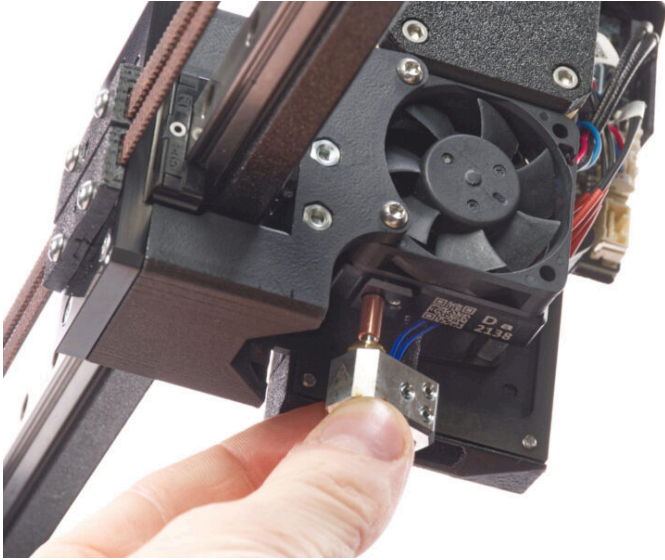


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# How to replace the Hotend assembly (XL single-tool)



[help.prusa3d.com/g409911](https://help.prusa3d.com/g409911)

Scan the QR code to  
display the latest  
version of this  
chapter.

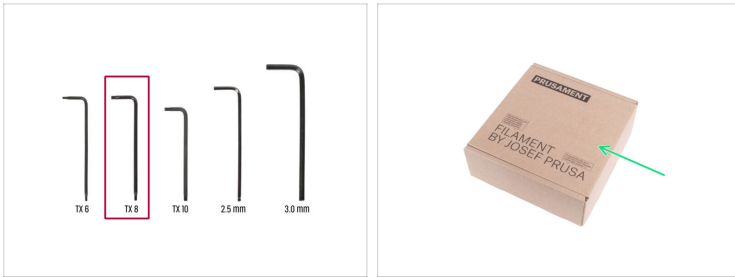


## STEP 1 Introduction



- ◆ This guide will take you through the replacement of the **Hotend assembly** on the **Original Prusa XL (single-tool)**.
- ◆ To replace the **Hotend assembly** on the **Original Prusa XL (multi-tool)** go to **How to replace the Prusa Nozzle (XL multi-tool)**
- ⓘ 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.

## STEP 2 Tools necessary for this chapter



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

● TX 8 Torx key

● A cardboard box for use as a heatbed protection during the assembly. *Hint: use the Prusament box.*

● Small brass brush *for cleaning the nozzle*

## STEP 3 Preparing the printer



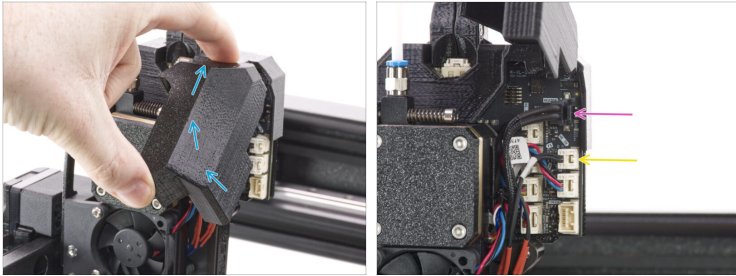
- Manually move the X-axis assembly all the way to the front side of the printer.
- Move the extruder approximately to the center of the X-axis.
- If you have loaded the filament, unload it from the hotend. On the screen, navigate to *Filament* -> *Unload Filament*.
- ⚠ **WARNING: The hotend and heatbed are very HOT. Do not touch these parts!!!**
- Remove the filament from the hotend. It is not necessary to completely remove it from the printer. Just a few centimeters (inches) above the extruder.
- When the heaterblock and the hotend are perfectly clean, cool down the printer. On the screen, navigate to *Preheat* -> *Cooldown*.
- ⚠ **Wait until the hot parts are cooled down to ambient temperature. It takes approximately 10 minutes.**

## STEP 4 Protecting the heatbed



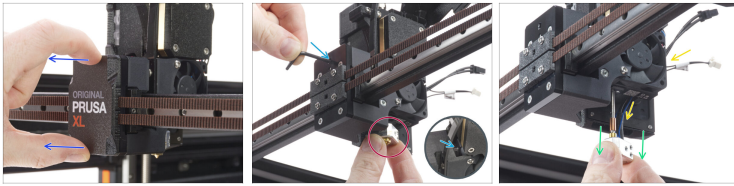
- ◆ **Before you proceed, it is recommended to protect the heatbed.**
- ◆ **Make sure the heatbed is cooled down to ambient temperature. Place the empty cardboard box approximately to the front center part of the heatbed.**

## STEP 5 Disconnecting the hotend



- ◆ Open the dwarf-cover-door to access the electronics board.
- ◆ Disconnect the hotend heater cable.
- ⚠ Each connector has a safety latch. **It is necessary to press the latch before disconnecting.** Otherwise, the connector may get damaged.
- ◆ Disconnect the hotend thermistor cable.
- ◆ Leave both cables free for now.

## STEP 6 Removing the hotend



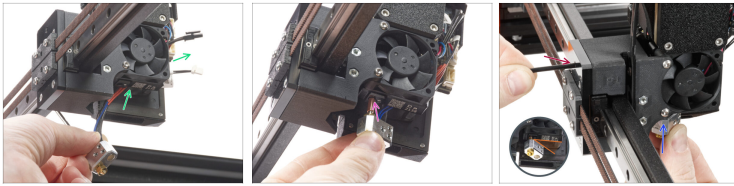
- ◆ Remove the x-carriage-cover from the X-carriage.
- ◆ Hold the hotend with your right hand.
- ◆ Using your left hand, insert the Torx TX8 key all the way through the X-carriage until it reaches the grub screw in the extruder. **Do not remove the screw**, a few turns are enough!
- ◆ Carefully pull the hotend assembly out of the extruder.
- ◆ At the same time push the hotend cables behind the fan out of the extruder.

## STEP 7 Installing the XL Hotend : parts preparation




- ◆ **For the following steps, please prepare:**
- ◆ New XL Hotend assembly (1x)

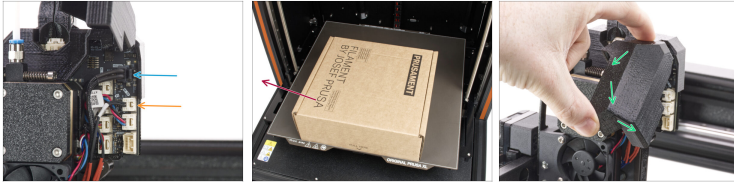
## STEP 8 Inserting the hotend



- ◆ Push the hotend cable behind the heatsink fan up to the electronics.
- ◆ Locate the hole in the heatsink from the bottom of the extruder and insert the hotend nub into the heatsink.
- ◆ Push the hotend all assembly the way in.
- ◆ Rotate the heaterblock as in the picture. There must be approximately 35° - 40° angle to avoid damaging the hotend cables.
- ◆ Maintain the position and using the TX 8 Torx key carefully tighten the grub screw to secure the hotend.

 **Do not use extra force while tightening, it may damage the hotend tube.**

## STEP 9 Connecting the hotend



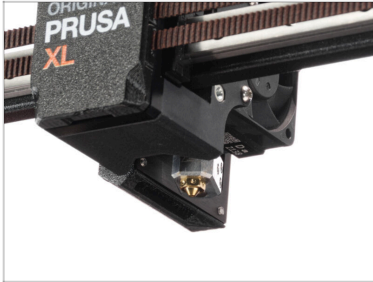
- Connect the hotend heater to the upper slot on the electronics board.
- Connect the hotend thermistor to the lower slot on the electronics board.
- Remove the cardboard box from the heatbed.
- Close the dwarf-cover-door.

## STEP 10 Checking the temperature



- Close the dwarf-cover-door.
- To check if everything is working, go to *Preheat* -> *PLA* and on the main screen check if the hotend temperature is increasing.
- ⚠ WARNING: The hotend and heatbed are very HOT. Do not touch these parts!!!**
- Snap the x-carriage-cover back onto the X-carriage. You must feel a slight "click" to ensure the cover fits on the part.

## STEP 11 That's it



- ◆ **Easy, right!** Good job. You just successfully replaced the Hotend on your Original Prusa XL.



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