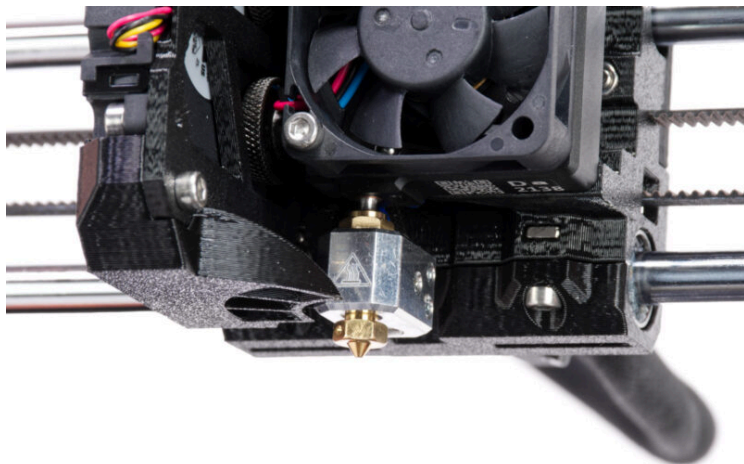


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How to install the Nextruder V6 Nozzle Adapter (MK4/MK3.9)



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STEP 1 Introduction



- ◆ This guide will take you through the installation of the **Nextruder V6 Nozzle Adapter** on the **Original Prusa MK4** and **MK3.9**.
- ◆ 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.
- ⓘ The following instructions are compatible with all V6 nozzle diameters.

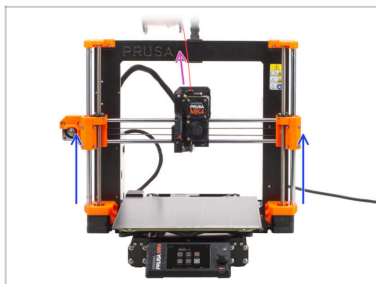
STEP 2 Tools necessary for this chapter



- **For this chapter, please prepare:**
- Wrench 13-16
- Universal wrench
- Cloth or piece of fabric 15x15cm *to protect the heatbed*
- Small brass brush *for cleaning the nozzle*

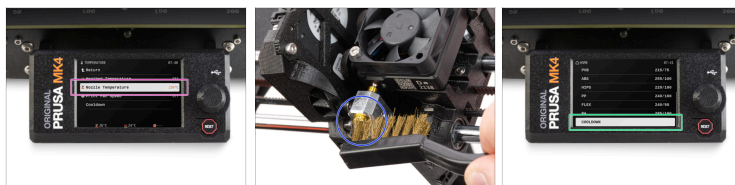
How to install the Nextruder V6 Nozzle Adapter (MK4/MK3.9)

STEP 3 Preparing the printer



- ◆ Unload the filament from the printer.
- ⓘ It's recommended to take off the spool holder from the printer.
- ◆ Move the Z-axis to the center position to easily access the extruder from the top and bottom.

STEP 4 Cleaning the hotend




⚠ WARNING: The hotend and heatbed are very HOT. Do not touch these parts!!!

- ◆ For the following steps, it is necessary to have the heaterblock and the hotend clean from the remains of the filament. Otherwise, it can be difficult to release the nozzle.

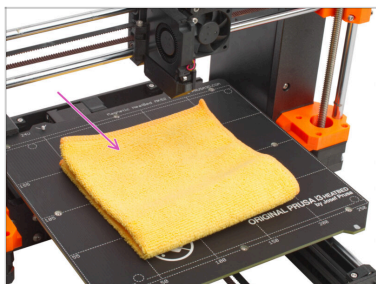
⚠ If you have a Prusa hotend sock on the hotend, remove it.

How to install the Nextruder V6 Nozzle Adapter (MK4/MK3.9)

- ◆ On the printer screen, go to *Control* -> *Temperature* -> *Nozzle Temperature* and using the knob set **250°C**.
 - ◆ Wait at least 5 minutes. The remains of the filament must be warmed up slightly so that they can be removed more easily.
 - ◆ Using the brass brush, carefully clean the heaterblock and the hotend from the filament residue. **Avoid contact of the brush with the hotend cables, as this could cause a short circuit.**
 - ◆ 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.**

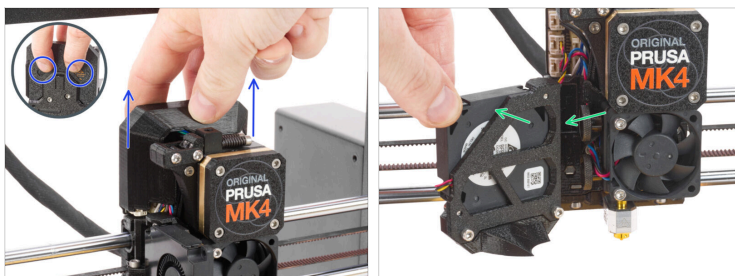
How to install the Nextruder V6 Nozzle Adapter (MK4/MK3.9)

STEP 5 Protecting the heatbed



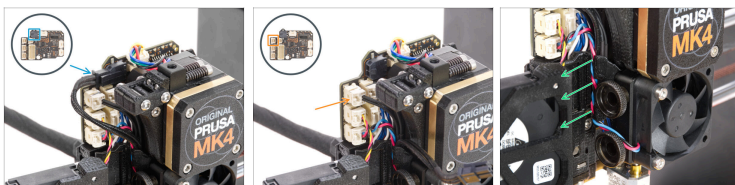
- ◆ Turn the printer OFF and unplug the power cable from the PSU (Power Supply Unit).
- ⚠ **Make sure the printer parts - print head and heatbed are cooled down at room temperature.**
- ⚠ **Turn the printer off and unplug it from the socket!**
- ⚠ **Before proceeding any further, it is recommended to **protect the heatbed first!****
- ◆ Take off the flexible steel sheet.
- ◆ Use any cloth or piece of fabric, which is thick enough and cover the heatbed. This will ensure you won't damage (scratch) the surface during the disassembly.

STEP 6 Accessing the hotend cables



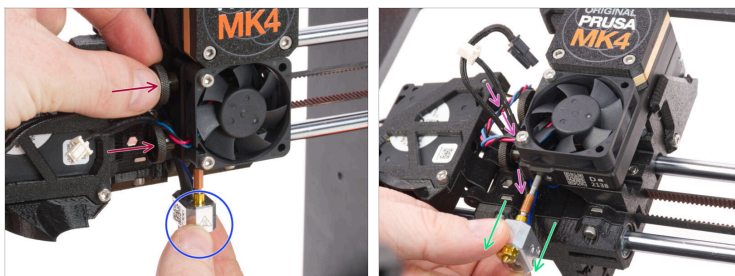
- Slide the Loveboard-cover up and remove it from the extruder. There are two cutouts on the back of the part, which you can grab for easier removal.
- Open the fan-door widely.

STEP 7 Disconnecting the hotend cables



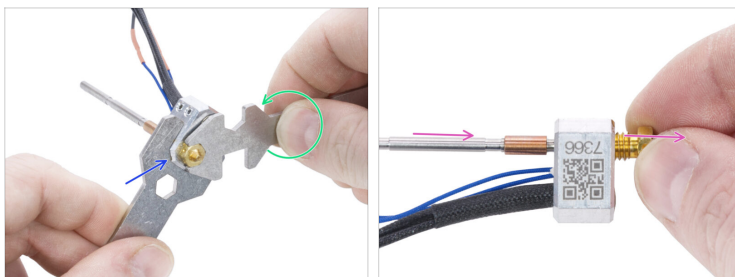
- ⚠ Each connector has a safety latch. It is necessary to press the latch before disconnecting. Otherwise, the connector may get damaged.**
- Disconnect the hotend heater cable.
- Disconnect the hotend thermistor cable.
- Remove the heatsink fan cable, hotend thermistor, and hotend heater cables from the cable channel and leave them free for now.

STEP 8 Removing the hotend



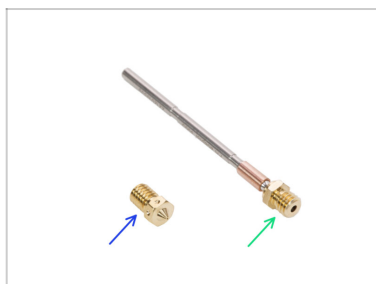
- ◆ Grasp the hotend with your hand.
- ◆ Use your other hand to loosen the two thumb screws. **There is no need to remove them completely**, a few turns are enough.
- ◆ Slide out the hotend assembly from the heatsink.
- ◆ At the same time push the hotend cables behind the heatsink out of the extruder.

STEP 9 Removing the Prusa Nozzle



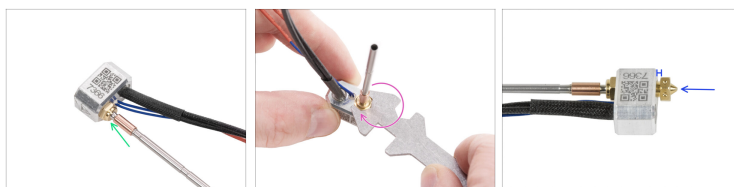
- ◆ Using the wrench 13-16 grasp the heaterblock.
- ◆ Using the 7mm cutout in the universal wrench, grasp the nozzle and loosen it.
- ◆ Manually release and remove the Prusa nozzle from the hotend assembly.

STEP 10 Installing the V6 nozzle: parts preparation



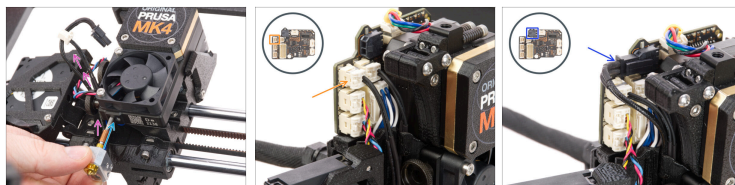
- ◆ **For the following steps, please prepare:**
- ◆ Nextruder V6 Nozzle Adapter (1x)
- ◆ V6 Nozzle (1x)

STEP 11 Installing the Nextruder V6 Nozzle Adapter



- From the side with cables, screw the Nextruder V6 Nozzle Adapter to the heaterblock.
- Hold the heaterblock in your hand and tighten the Nextruder V6 Nozzle Adapter by the universal wrench.
- From the opposite side of the heaterblock, screw in the V6 nozzle. **Tighten the nozzle gently but firmly.**
- ⓘ A gap of approximately two millimeters is left between the nozzle and the heaterblock, which is correct.

STEP 12 Connecting the hotend



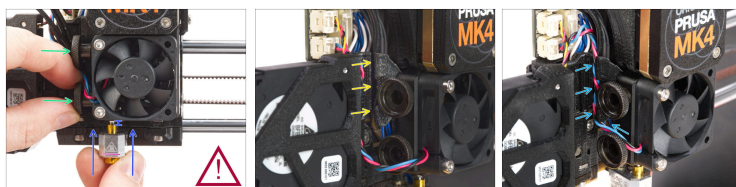
- ◆ Locate the hole in the heatsink from the bottom of the extruder and insert the hotend into the heatsink.
- ◆ At the same time, push the hotend cable behind the heatsink fan up to the electronics.
- ⚠ **Do not tighten the thumb screws to secure the hotend yet! Wait for the instruction.**
- ◆ Connect 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.
- ◆ Keep the hotend assembly hanging on cables. **Avoid pulling on the hotend.**

STEP 13 Tightening the nozzle



- ⚠ In the following steps, we will need to heat up the nozzle. **Avoid touching the HOT parts on the hotend.**
- ⚠ **Remove the cloth from the heatbed!**
- ⬛ Plug the power cord to the printer and turn it ON.
- 🟢 Now, you will need to set the nozzle temperature to 250°C. On the printer screen, navigate to *Control* -> *Temperature* -> *Nozzle Temperature* and using the knob set 250°C.
- ⚠ **WARNING:** From now, the **hotend is very HOT. Do not touch it!!!**
- 🟠 Grasp the heaterblock with the wrench 13-16. **Avoid pulling on the hotend!**
- 🟣 Tighten the nozzle using the universal wrench. **Do not overtighten it, you can damage the thread.** Use the sufficient force. The prescribed tightening torque is 1.5 Nm.
- ⚠ **NOTE:** **Avoid bending the hotend assembly while tightening!** After that, there will be a gap of approximately 1 mm between the nozzle and the heater block.

STEP 14 Tightening the hotend assembly

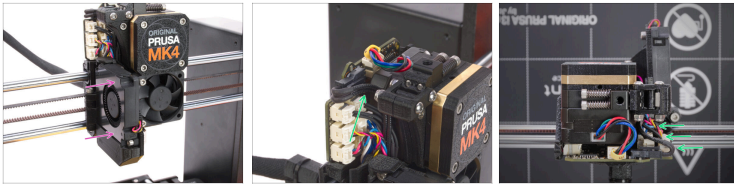


⚠ CAUTION!!! COOLDOWN THE PRINTER before proceeding with this step. Wait until the hot parts are cooled down to ambient temperature. It takes approximately 10 minutes.

- ➊ Push the hotend assembly all the way into the heatsink. There should be approximately a 2 mm gap between the heatsink and the brass part of the nozzle.
- ➋ Orient the hotend assembly so that the HOT symbol on the heaterblock faces forward.
- ➌ While pushing the hotend assembly in, firmly tighten the lower thumb screw and the upper thumb screw. **Avoid pinching any cable between the screws and the heatsink!**
- ➍ Locate the cable channel behind the thumb screws. Guide the hotend thermistor cable through the channel first. Then insert the hotend heater cable.
- ➎ Guide the heatsink fan cable as you can see. Push it in the cable channel.

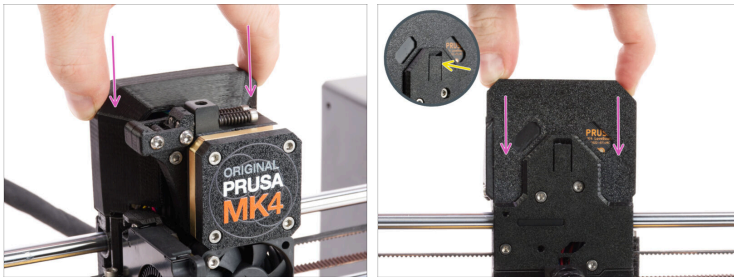
How to install the Nextruder V6 Nozzle Adapter (MK4/MK3.9)

STEP 15 Arranging the cables



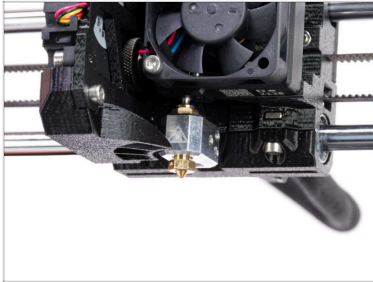
- Close the fan-door.
- Arrange all the cables according to the picture. All cables must be squeezed as close to the extruder body as possible so as not to interfere with the cover in the next step.

STEP 16 Covering the LoveBoard



- Slide the Loveboard-cover on the extruder. And push it down.
- ⚠ Be careful not to pinch any cables!**
- When the cover is properly and completely inserted, you will feel a slight "click" of the rear latch.

STEP 17 It's done



- ◆ **Congratulations!**
You just successfully replaced the NextruderV6 Nozzle Adapter on your Original Prusa MK4.
