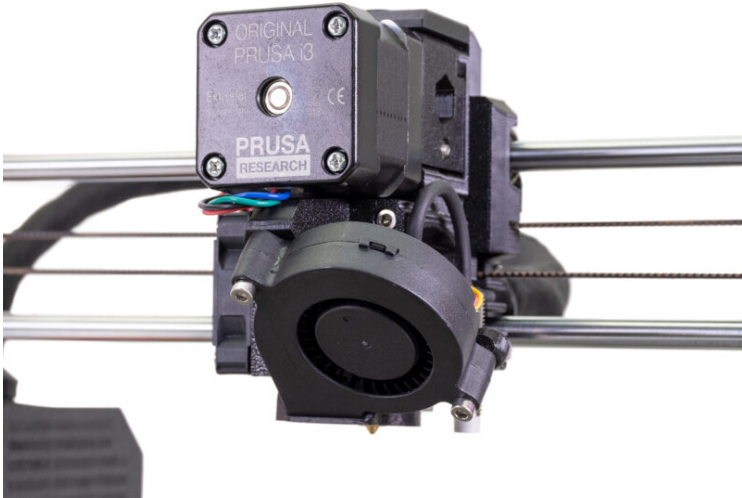


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How to replace a print fan (MK3S/MK3S+)

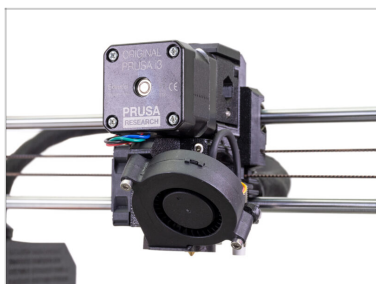


help.prusa3d.com/g160876

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version of this
chapter.



STEP 1 Introduction



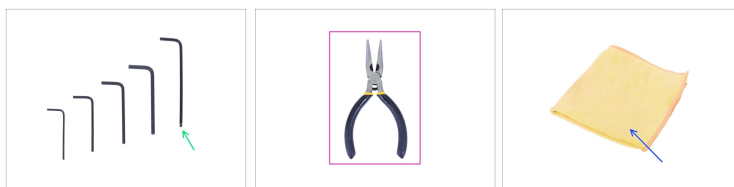
◆ This guide will take you through the replacement of the **print fan** on the **Original Prusa i3 MK3S** and **MK3S+**.

ⓘ Some parts might slightly differ. However, it does not affect the procedure.

◆ All necessary parts are available in our eshop shop.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



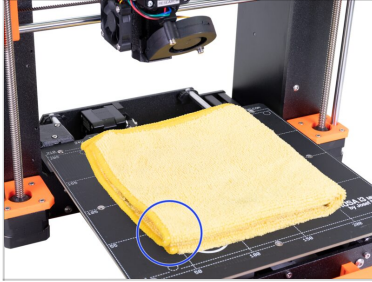
● **For the following steps, please prepare:**

● 2.5mm Allen key

● Needle-nose pliers

● Cloth or piece of fabric 15x15cm

STEP 3 Preparing the printer

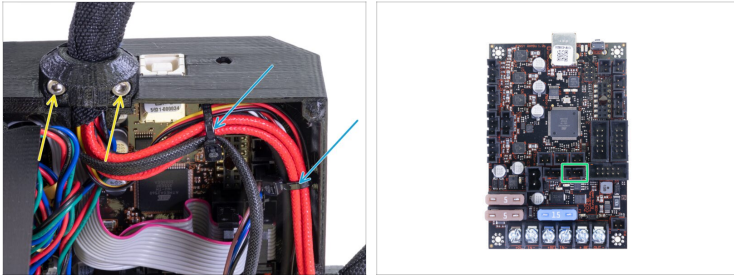


⚠ Turn the printer off and unplug it!

i Before you proceed, it is recommended to protect the heatbed.

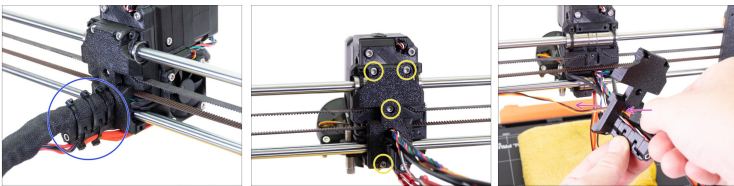
- ◆ Take off the flexible steel sheet.
- ◆ Use any cloth or piece of fabric, which is thick enough and cover the heatbed. This will ensure you won't damage (scratch) the surface during the disassembly.

STEP 4 Disconnecting the print fan



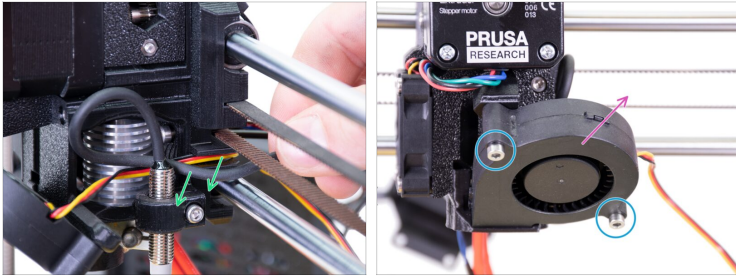
- ◆ Open the Einsy case and cut the two zip ties on the cable bundle. **Avoid cutting the cables!**
- ◆ Release two screws on the cable clip and remove the clip.
- ◆ Disconnect the print fan cable from the EINSY board.

STEP 5 Removing the x-carriage-back



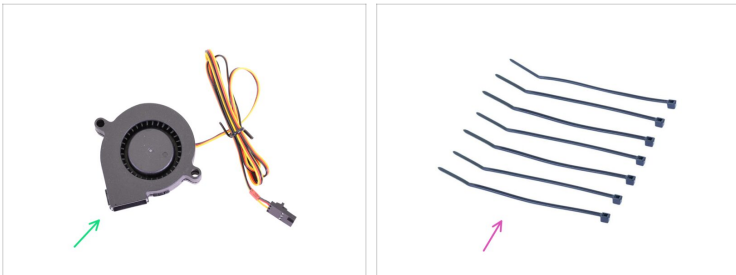
- ◆ Cut the zip ties on the cable-holder and remove them.
- ◆ Remove the textile sleeve from the cable bundle.
- ◆ Release four screws on the x-carriage-back part.
- ◆ Push the print fan cable through the opening in the x-carriage-back.

STEP 6 Removing the print fan



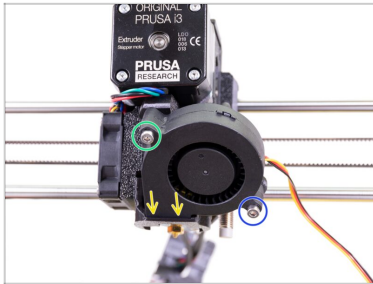
- ◆ Remove the P.I.N.D.A./SuperPINDA (black) cable and print fan (yellow-red-black) cable from the channel in the extruder.
- ◆ Release two screws on the print fan.
- ◆ Remove the print fan from the extruder.

STEP 7 New print fan - parts preparation



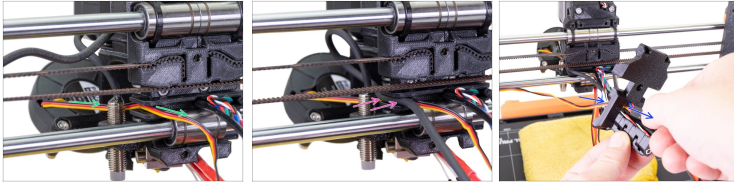
- ◆ **For the following steps, please prepare:**
- ◆ New print fan (x)
- ◆ Zip tie (7x)

STEP 8 Mounting the new print fan



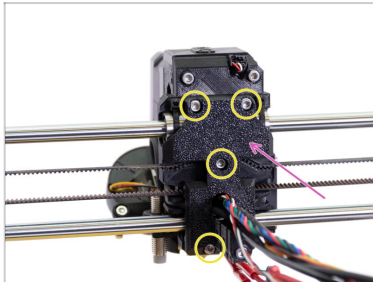
- Place the print fan to the extruder.
- First, slide the fan in the fan-shroud and make sure it is aligned properly.
- Second, fix the fan in place using one M3x20 screw. **Tighten carefully**, or you will damage the fan's casing.
- Place the remaining M3x20 screw and tighten it, **but carefully**, or you will damage the fan's casing.

STEP 9 Guiding cables behind the extruder



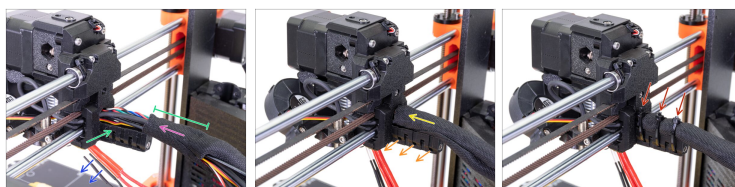
- ◆ Guide the print fan cable behind the P.I.N.D.A./SuperPINDA sensor back to the cable bundle.
- ◆ Place the cables on the P.I.N.D.A./SuperPINDA sensor side and over the lower smooth rod, then push them back in the channel.
- ◆ Push the print fan cable through the opening in the x-carriage-back.

STEP 10 Mounting the x-carriage-back



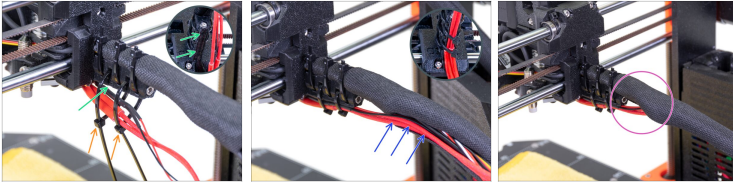
- ◆ Place the x-carriage-back on the extruder.
- ◆ Secure it using four M3x10 screws.

STEP 11 Tightening the textile sleeve



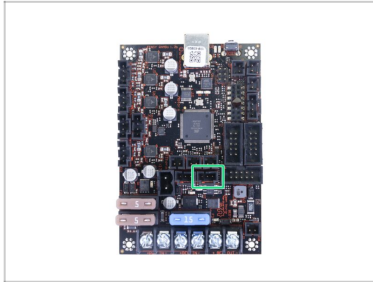
- ◆ Open one end of the textile sleeve and slide it on the cable bundle leading from the extruder.
 - ◆ Leave the cables from the hotend out for now.
 - ◆ Length of the first wrap should be slightly longer than the cable-holder part, about 5 cm is enough.
 - ◆ Gently twist the sleeve to make it smaller and tighter around the cables, orient the sleeve's seam downwards, then slide the sleeve towards the extruder.
 - ◆ **Take 3 zip ties** and insert them into the **lower row** of holes on the cable-holder.
 - ◆ Twist the sleeve again (without twisting the cables inside) and tighten the zip ties.
- ⚠ **IMPORTANT:** Cut the remaining part of each zip tie using pliers as close to its head as possible. Note the correct position of each zip ties's head (slightly off-centre to the left).

STEP 12 Guiding the hotend cables



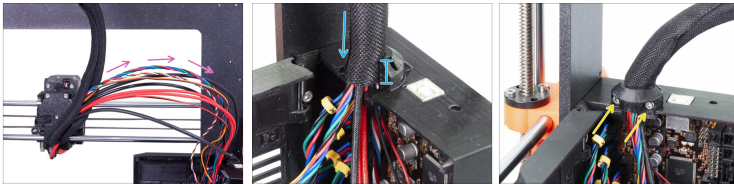
- ◆ Use two zip ties and push them through the upper slots on the cable-holder.
 - ◆ **ATTENTION!** Before tightening the zip ties add the cables from the hotend. Use the channel in the printed part to arrange them properly.
 - ◆ Once the hotend cables are included, tighten the zip ties and cut remaining parts.
 - ◆ Open the textile sleeve and insert the cables from the hotend.
 - ◆ Compare the look of the cable management with the last picture.
- ⚠ The zip tie arrangement was tested with the injection molded double spool holder (provided in the kit and assembled later on). If you intend to use any other frame mounted type holder, make sure the zip ties won't crash into it, which might result in a print failure.


STEP 13 Connecting the print fan



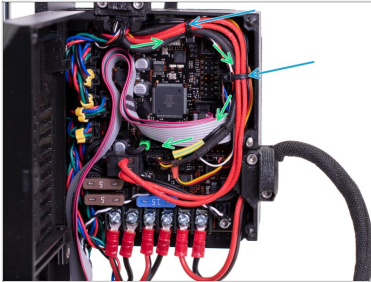
- Connect the print fan cable to the Einsy board.

STEP 14 Guiding the textile sleeve



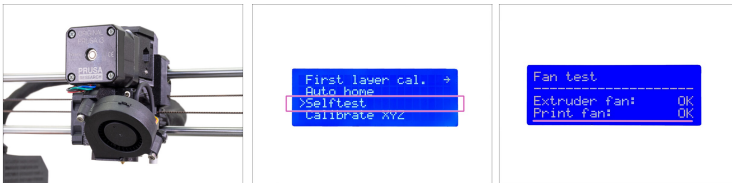
- Guide textile sleeve on the cable bundle from the extruder to the Einsy base.
- Slide the sleeve in the holder at least 3/4 of the holder's height.
-  Ensure the nylon filament isn't pushing the motor cables and if needed slightly unwrap the sleeve and push the filament up.
- Use the Extruder-cable-clip and two M3x10 screws to fix the cable bundle in place.

STEP 15 Cable management



- Manage all cables in the Einsky base like in the picture.
- Secure the cable bundle with two zip ties.

STEP 16 It's done!



- Good job!** You just replaced the print fan on your printer.
- To ensure everything works as expected and all wires are connected correctly, turn the printer on and **run the Selftest** from the Calibration menu.
