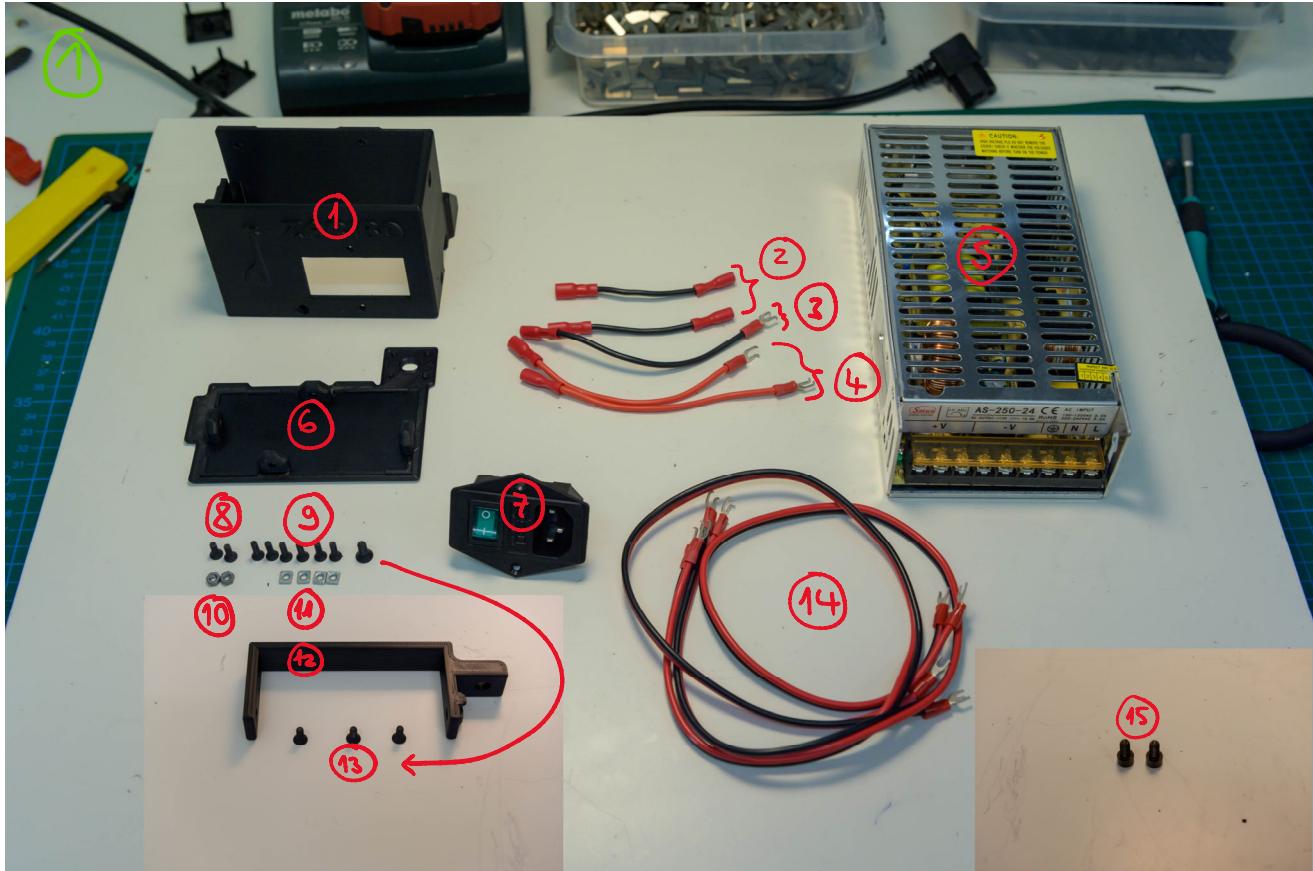


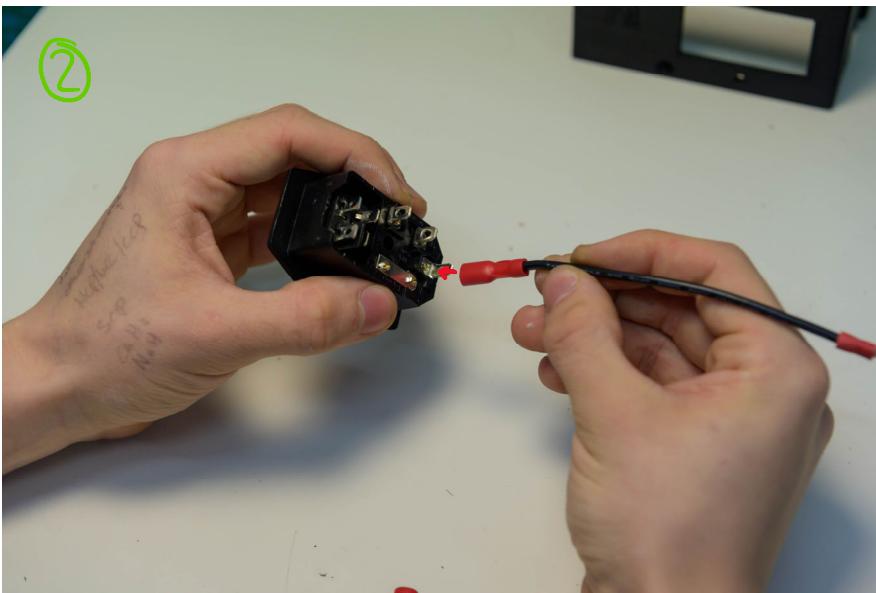
8: Powersupply

You will need the following parts to complete the powersupply:

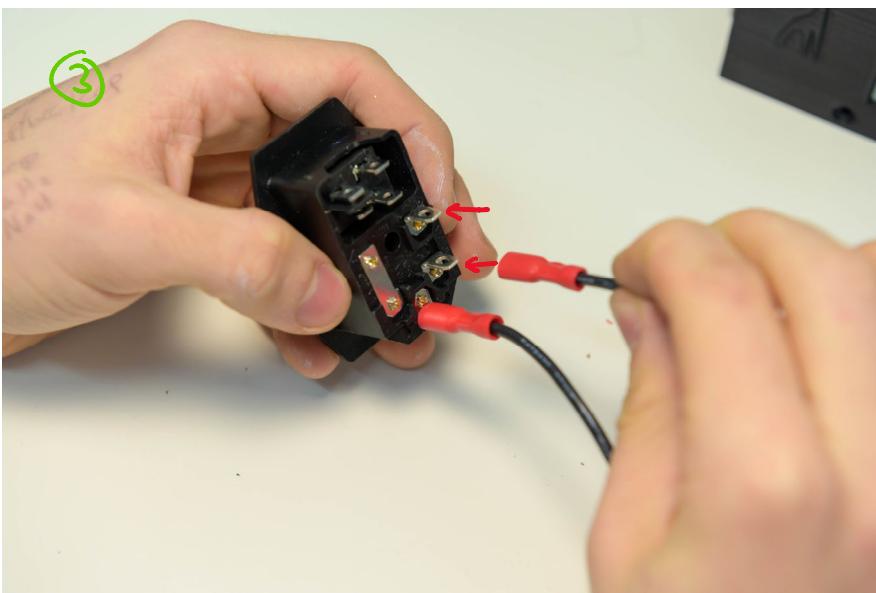


- ① 1x PSU base
- ② 2x short black cables
- ③ 1x long black cable
- ④ 2x red cables
- ⑤ 1x PSU
- ⑥ 1x PSU base cover
- ⑦ 1x power switch
- ⑧ 2x M3x6mm countersunk screws

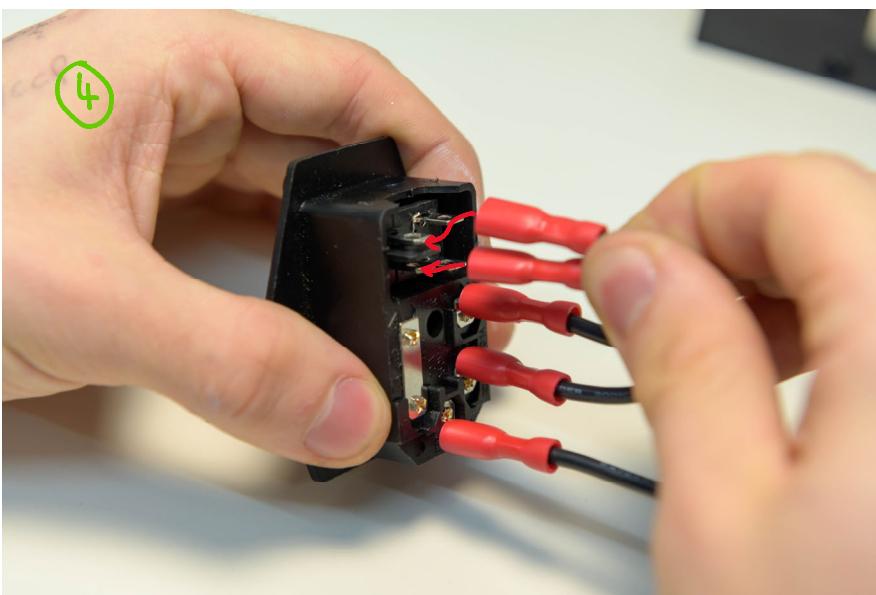
- ⑨ 6x M3x8mm countersunk screws
- ⑩ 2x M3 nuts
- ⑪ 4x M3 square nuts
- ⑫ 1x PSU top mount
- ⑬ 4x M4x10mm countersunk screws
- ⑭ 2x power cables
- ⑮ 2x M6x12mm screws



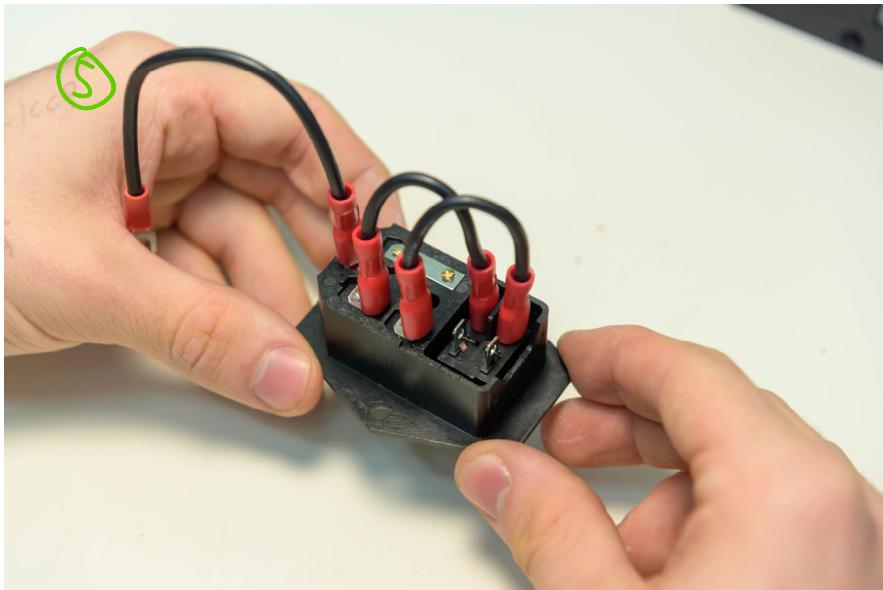
Attach the long black cable to the marked pin.



Attach the two short black cables to the two marked pins.



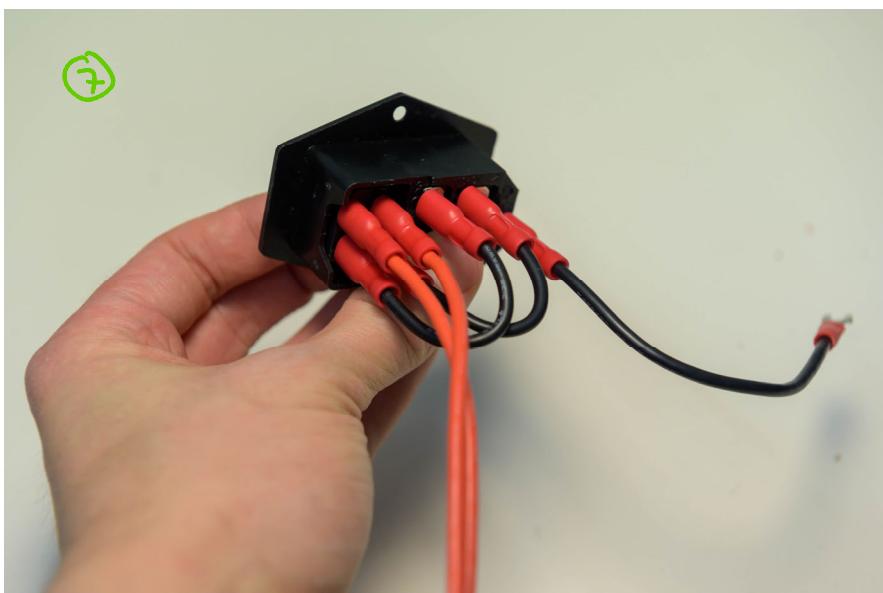
Attach the other ends of these two short black cables to the marked pins.
(See picture 5.)



This is what it should look like.



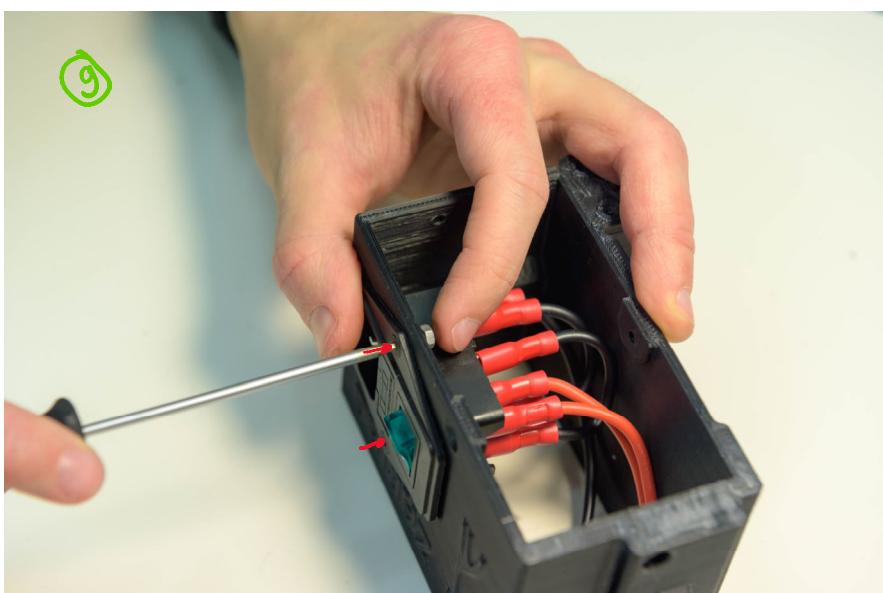
Attach the two red cables to the remaining two pins.



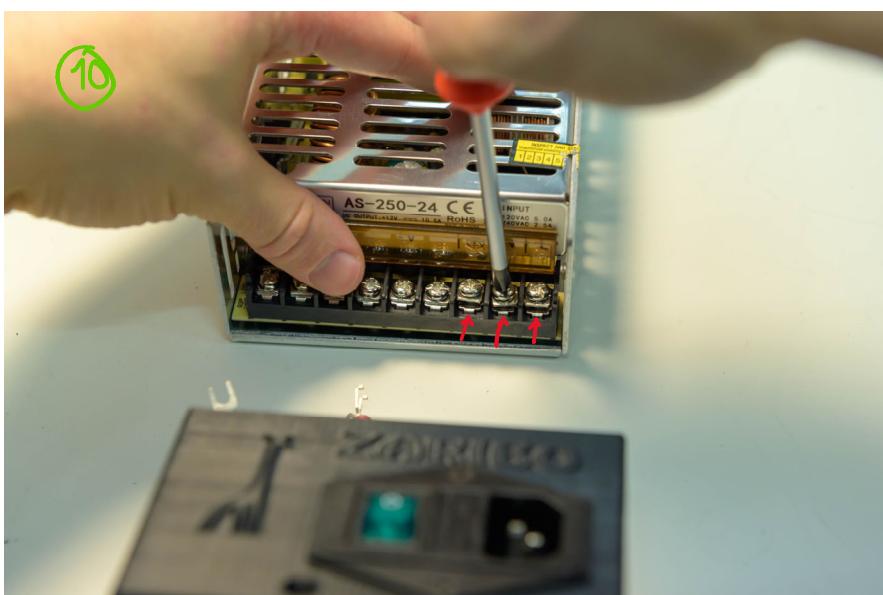
This is what it should now look like.



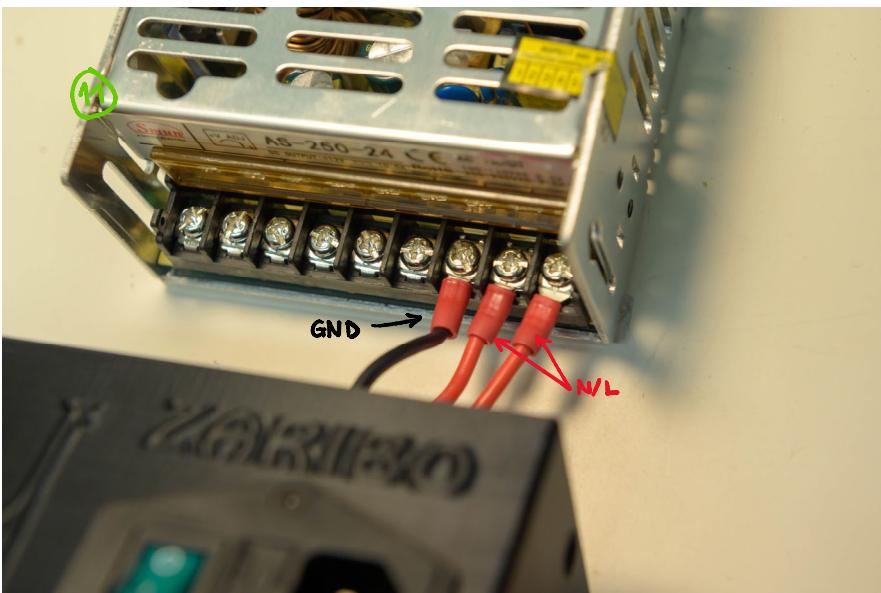
Insert the switch into the PSU base in the orientation shown.



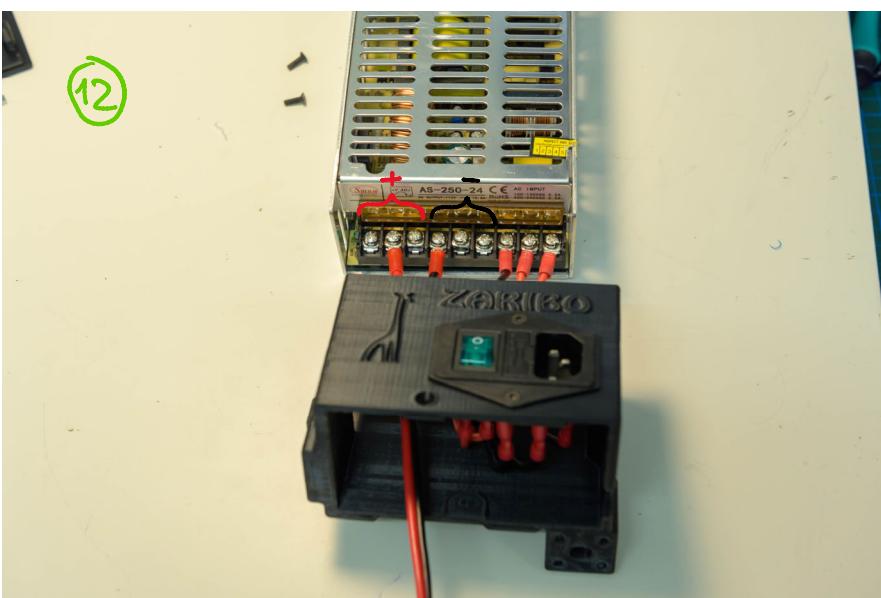
Using two M3x6mm countersunk screws and two M3 nuts, screw the switch in place.



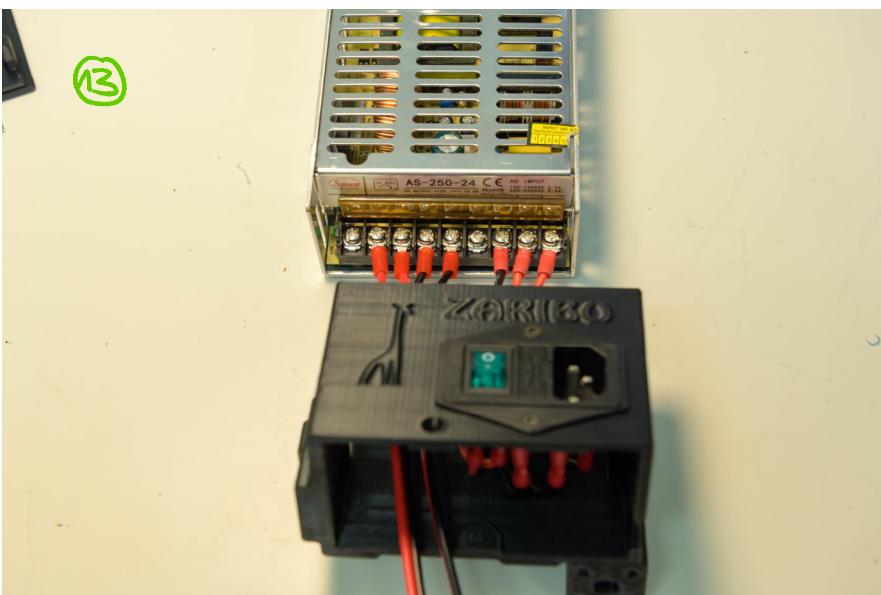
Open the protective flap on the PSU and loosen the first three screws from the right.



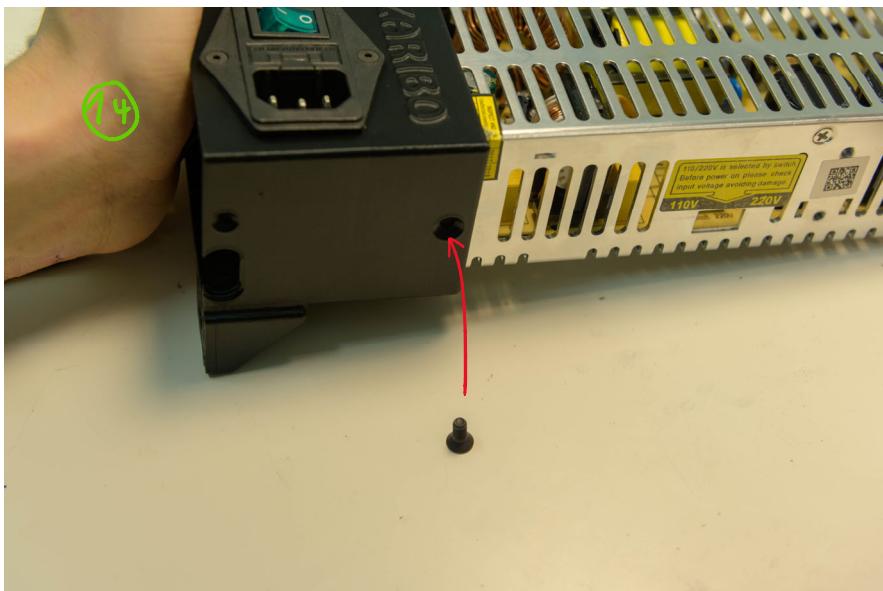
Attach the black cable to ground, and the two red cables to N and L (order of red cables is irrelevant).



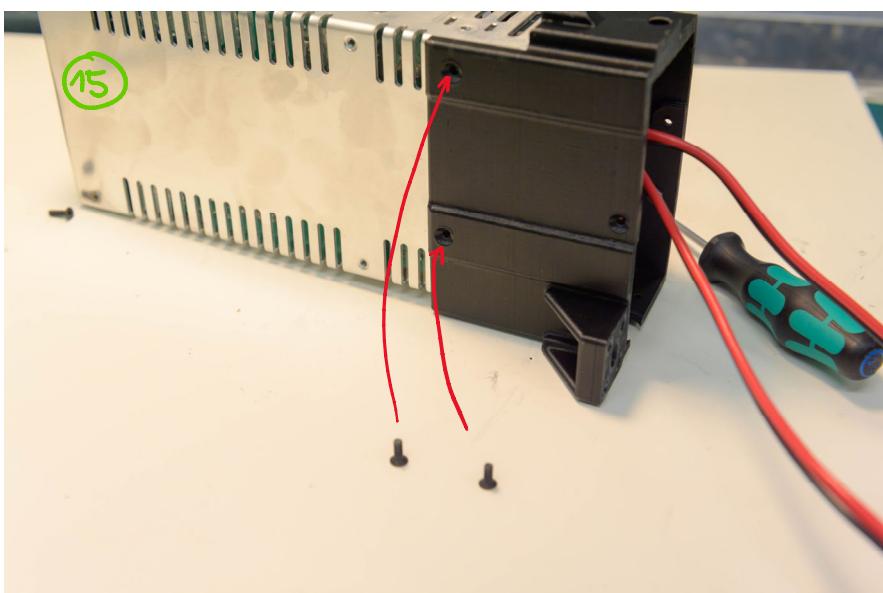
Through the base, attach the red power cable to one of the three left positive terminals. Attach the black cable to one of the right three negative terminals.



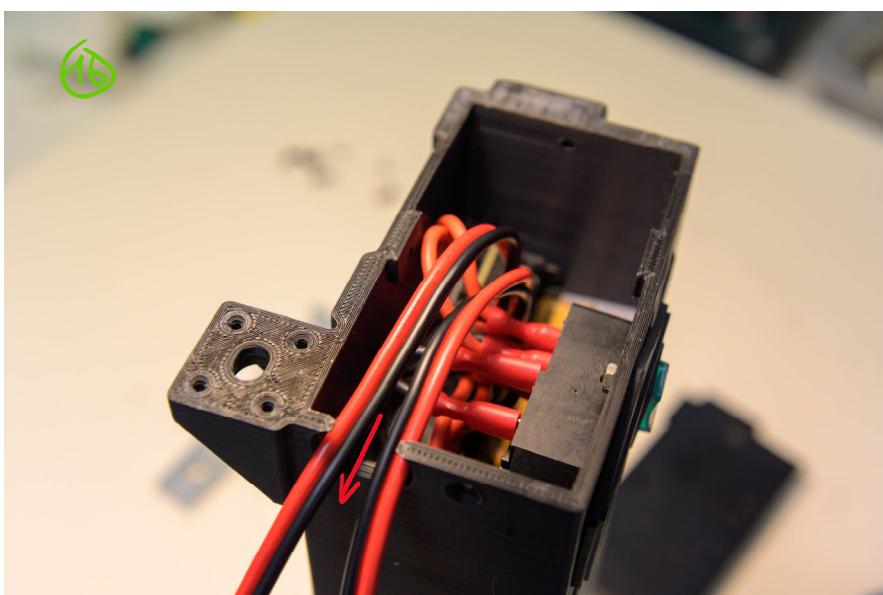
Do the same for the other power cable.



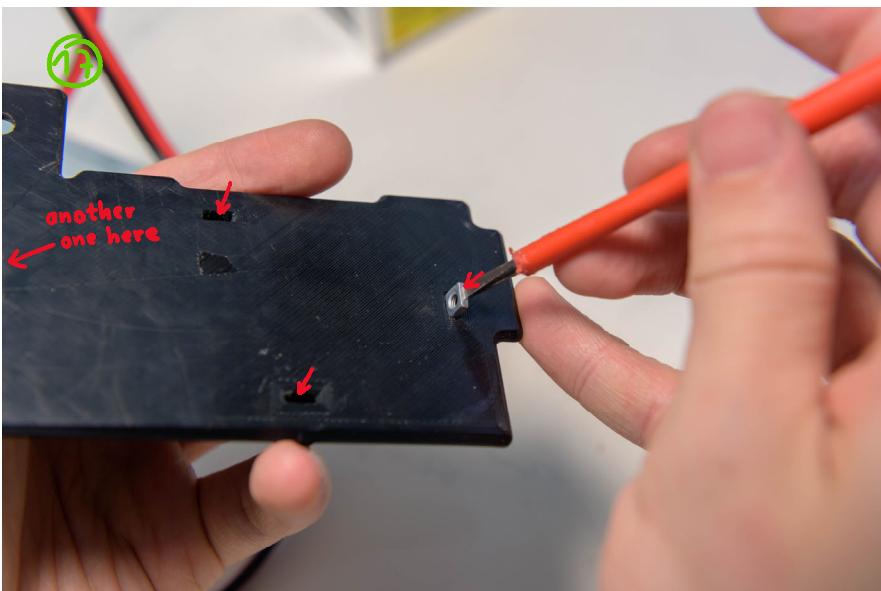
Slide the PSU and the base together and screw it in place with an M3x8mm countersunk screw.



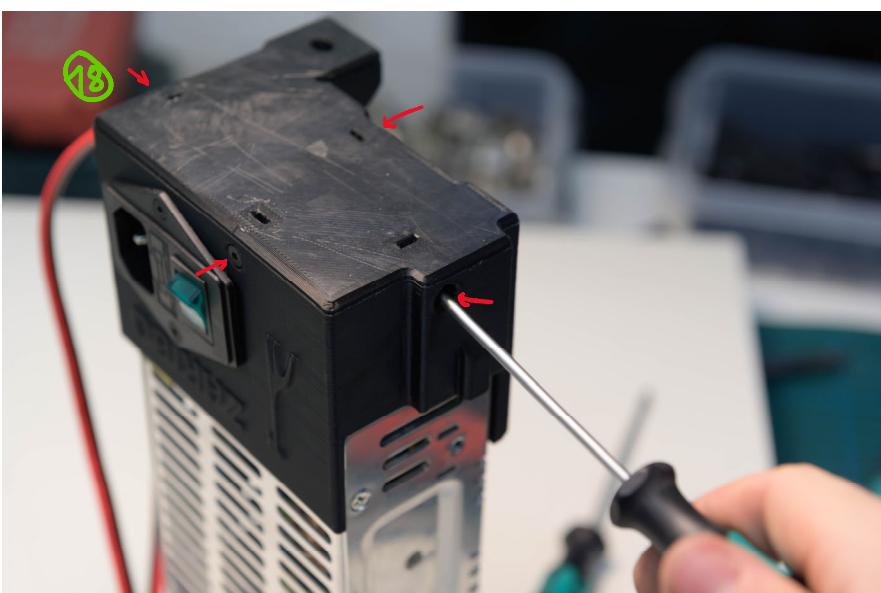
With two additional screws of the same type, fasten the other side to the PSU.



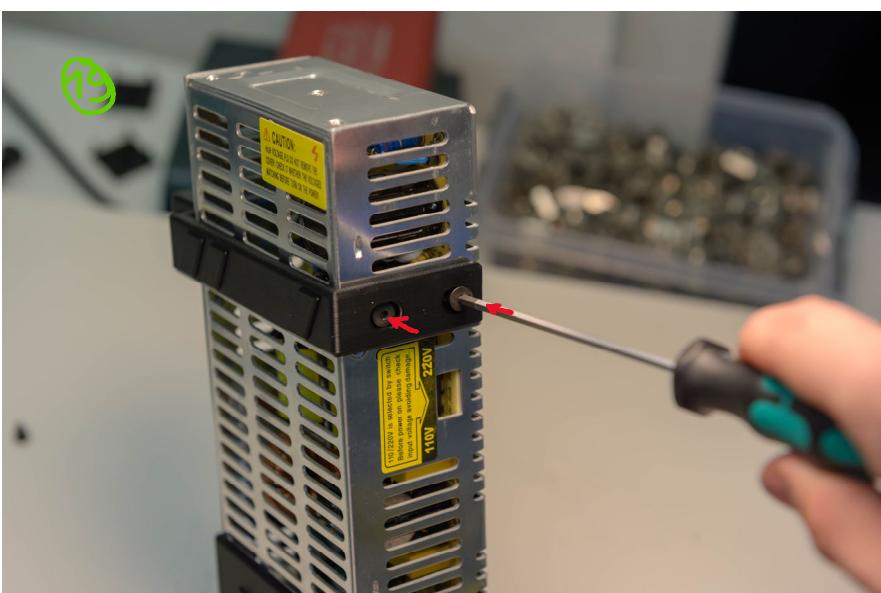
Route the two power cables through the opening in the side.



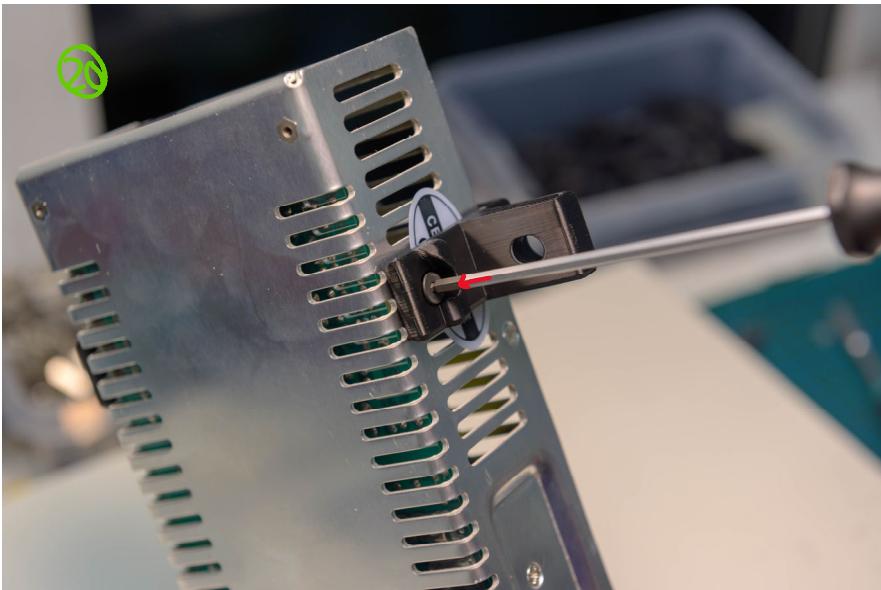
Insert a square nut into each of the four slots on the underside of the PSU base cover.



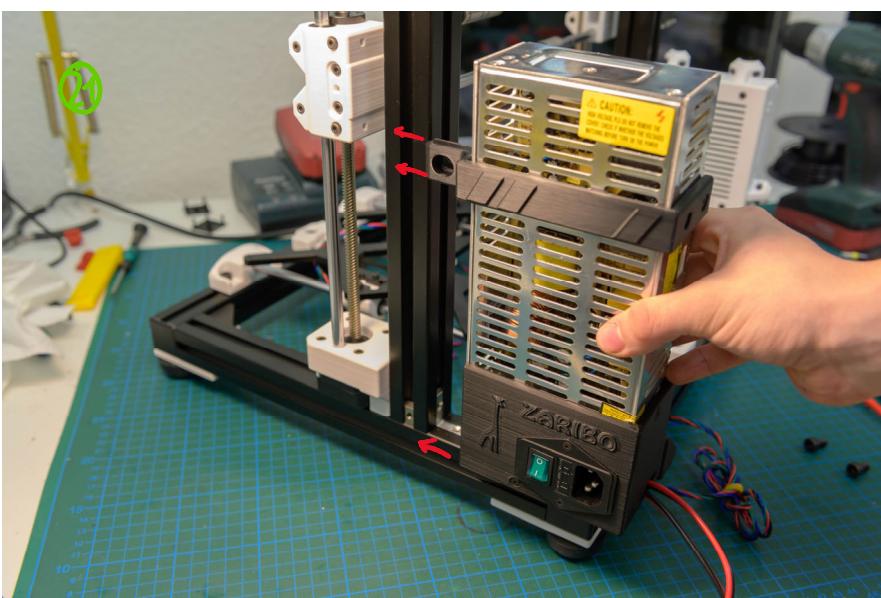
Through the PSU base, screw an M3x8mm countersunk screw into each of the square nuts.



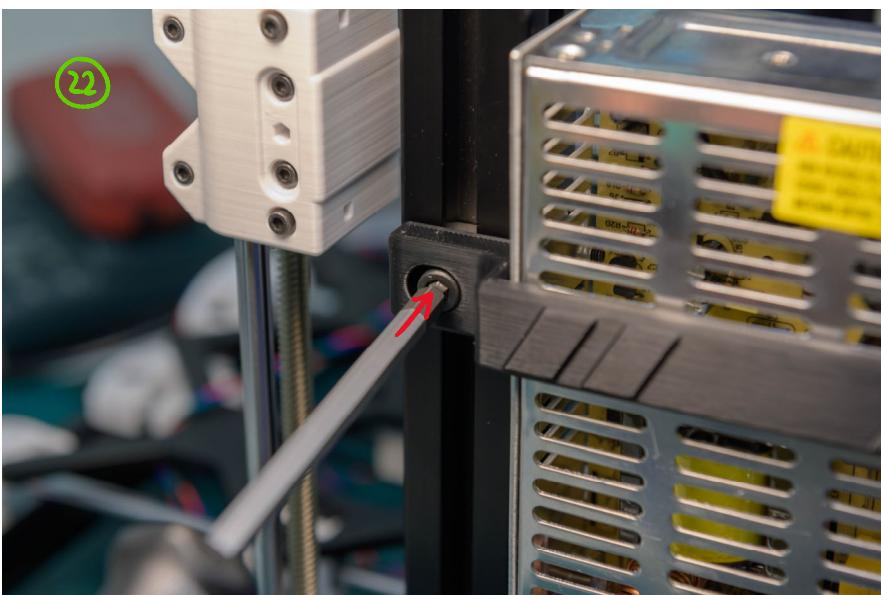
Using two M4x10mm screws install the top mount to the top of the PSU...



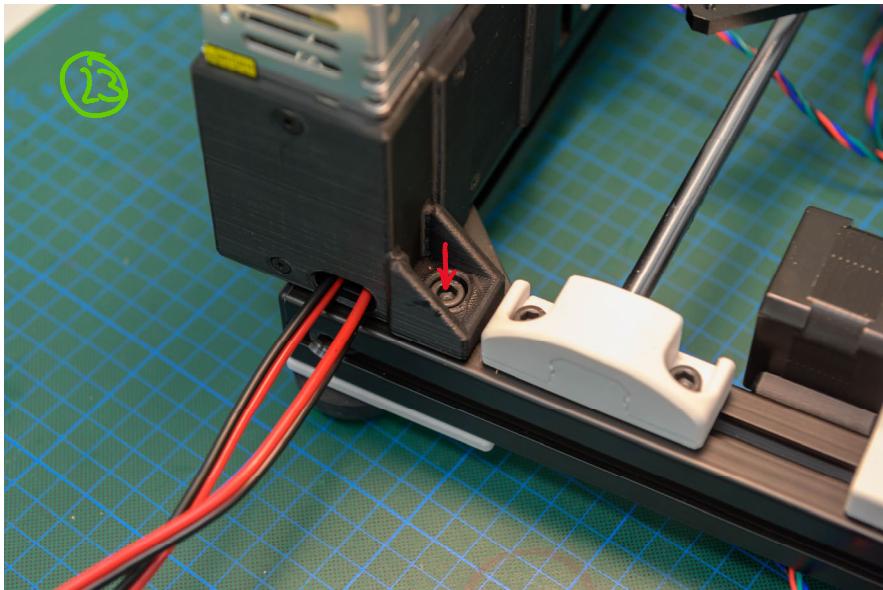
...and an additional M4x10mm screw on the other side.



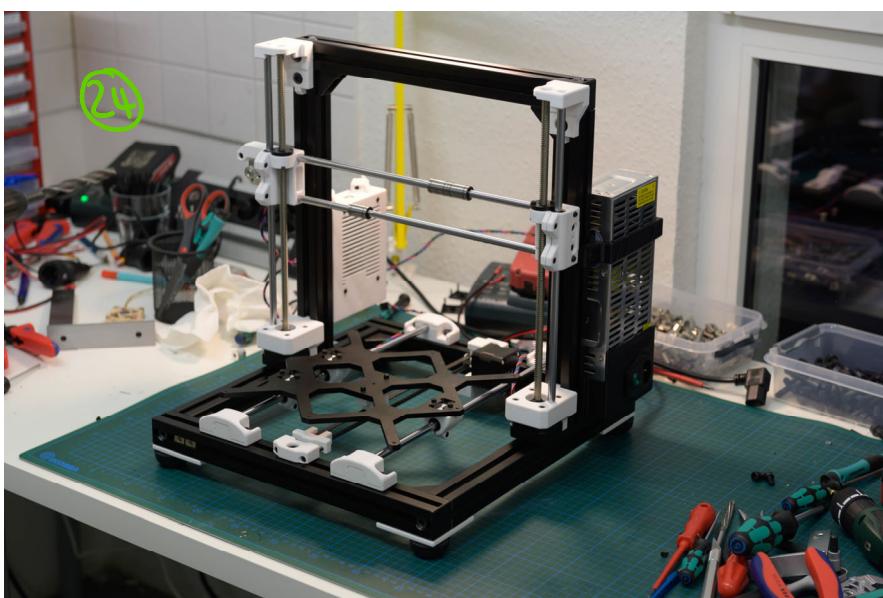
Fit the PSU assembly to the back right of the frame as seen in the picture.



Use an M6x12mm screw to screw the top mount to the frame.



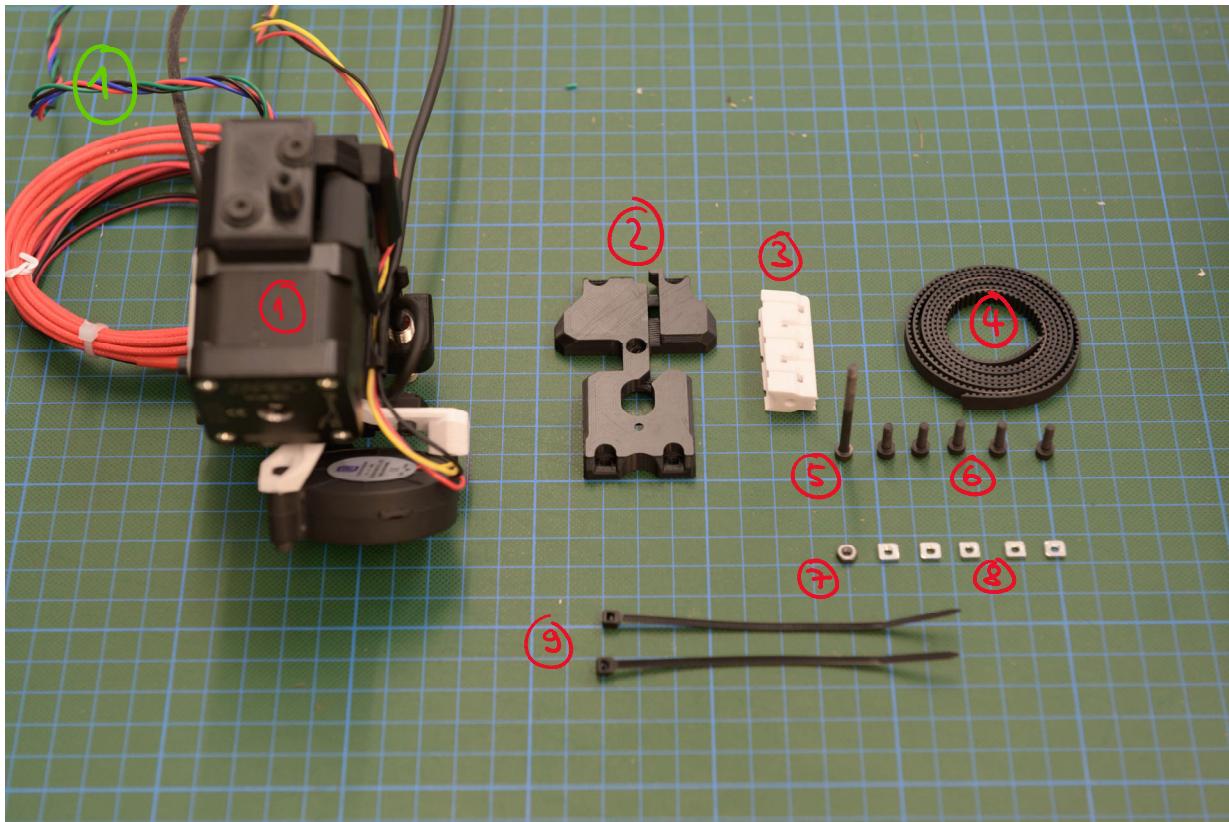
With another M6x12mm screw screw the base to the subframe.



Your powersupply is now complete.

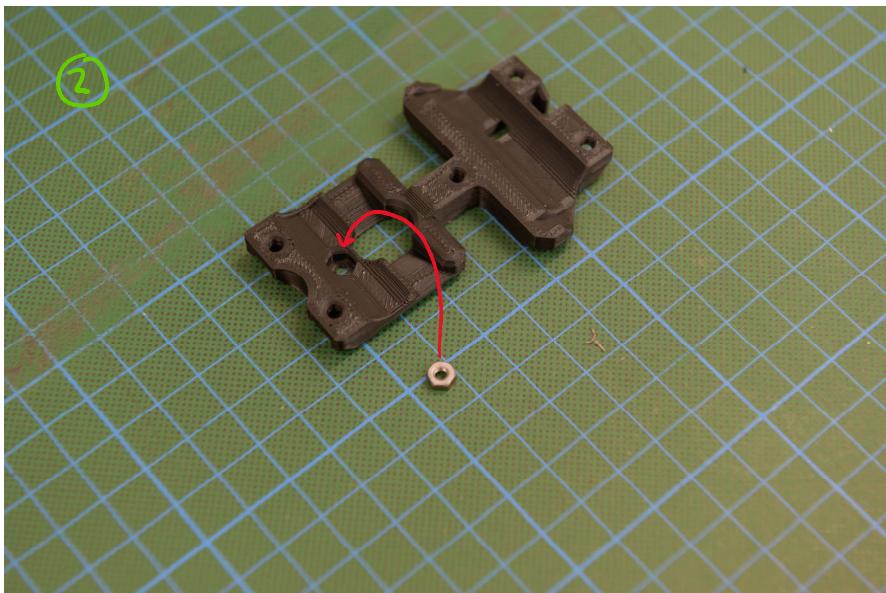
9: Extruder (part 2/2)

You will need the following parts to complete part 2 of the extruder:



- ① 1x extruder
- ② 1x X-carriage back
- ③ 1x extruder cable guide
- ④ 1x ~90cm timing belt
- ⑤ 1x M3x40mm screw

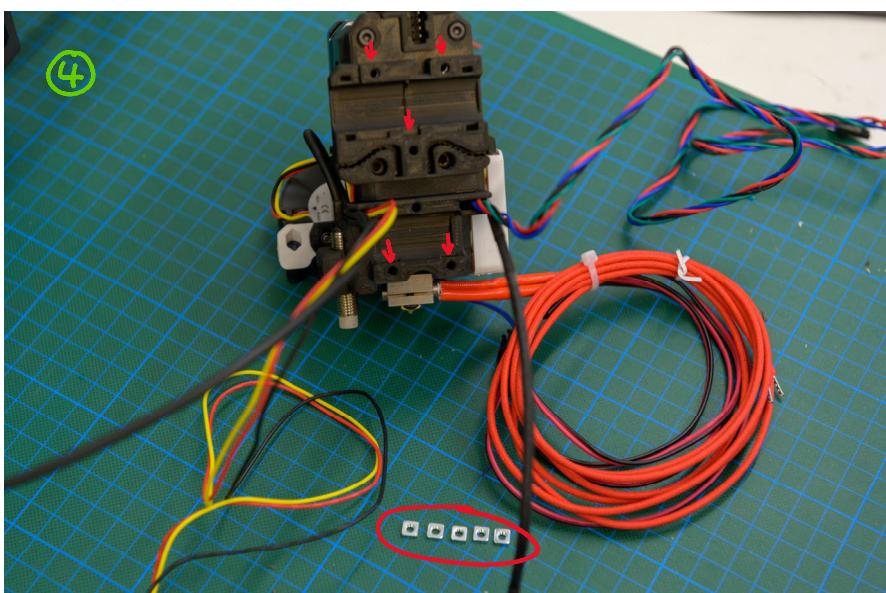
- ⑥ 5x M3x10mm screws
- ⑦ 1x M3 nut
- ⑧ 5x M3 square nuts
- ⑨ 2x zip ties



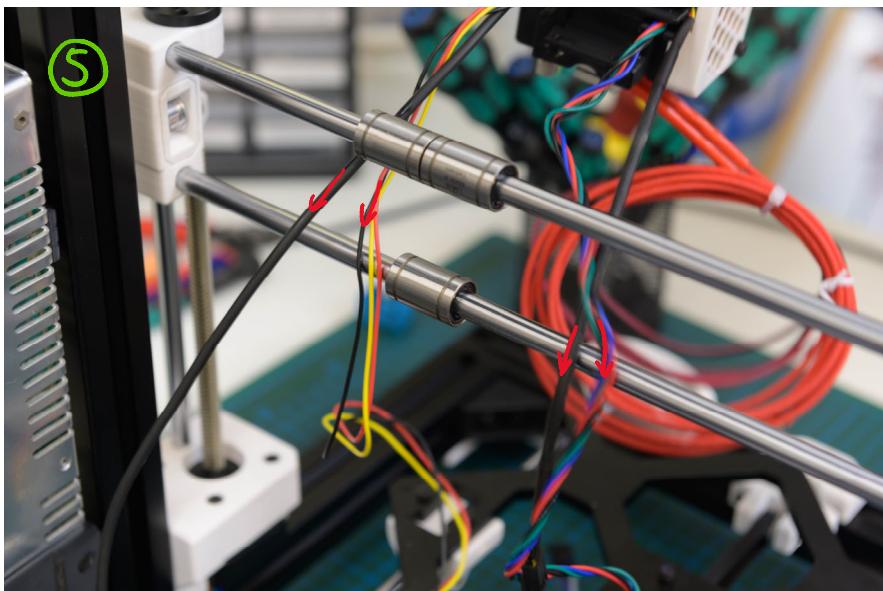
Insert the M3 nut into the X-carriage back.



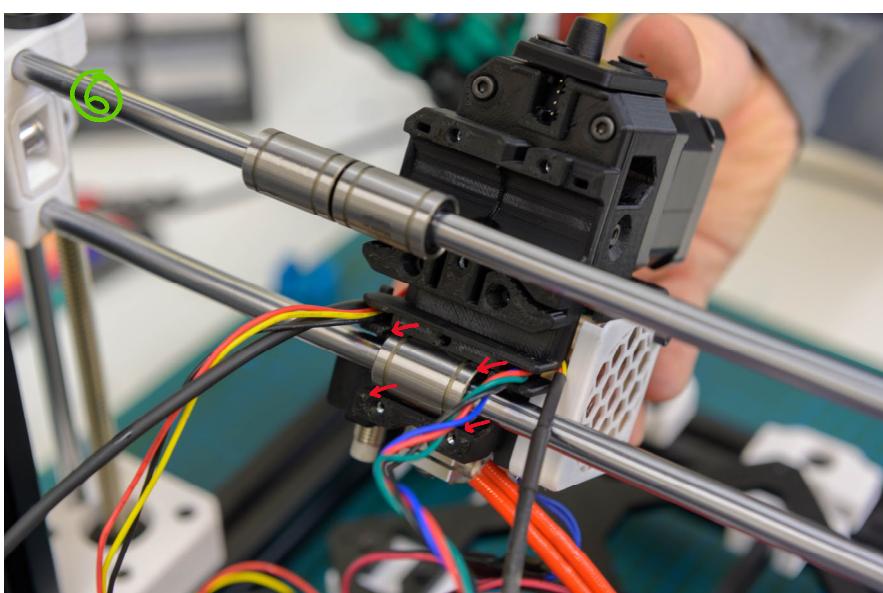
Fasten the extruder cable guide to the X-carriage back using an M3x40mm screw.



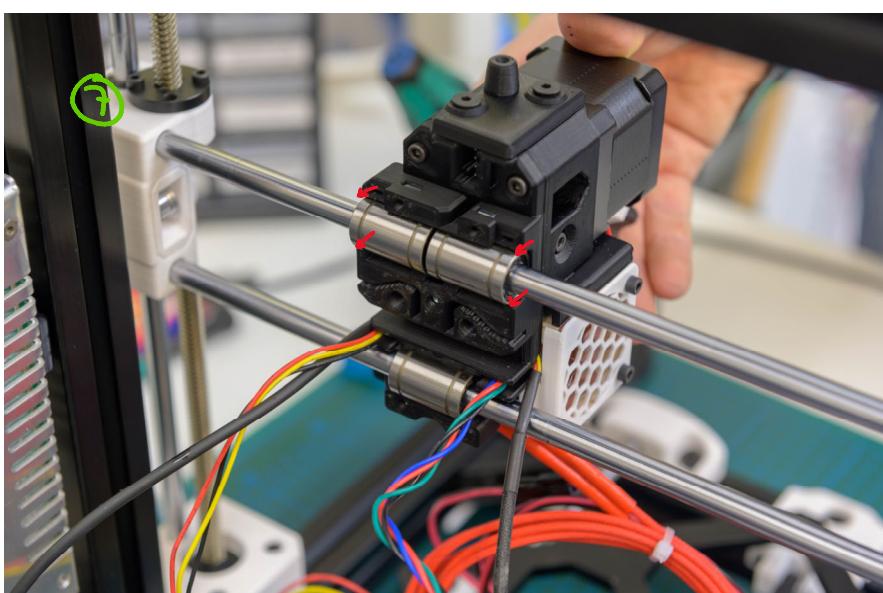
Insert a square nut into each of the marked slots.



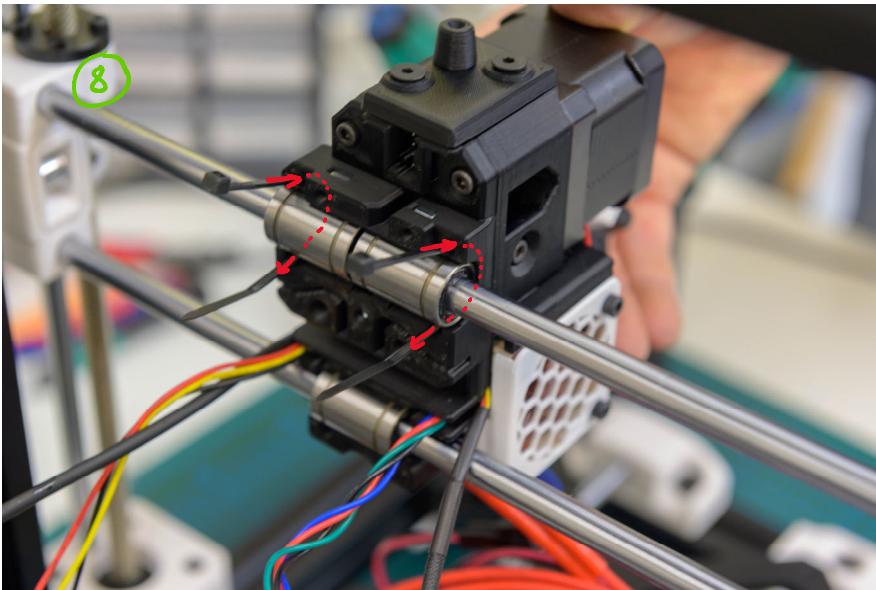
From the front of the printer, pull the four cables exiting the extruder through the X-axis (between the two rods).



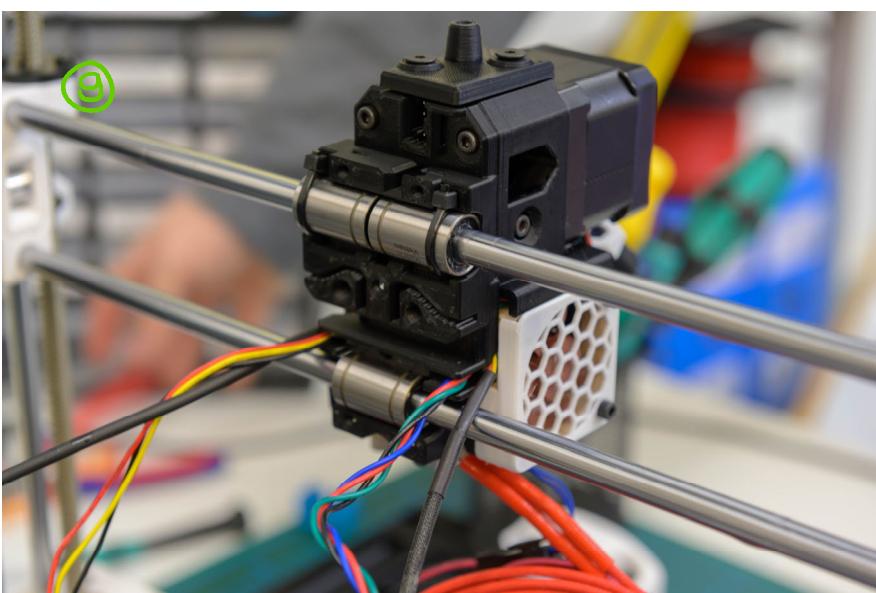
Align the extruder with the lower bearing.



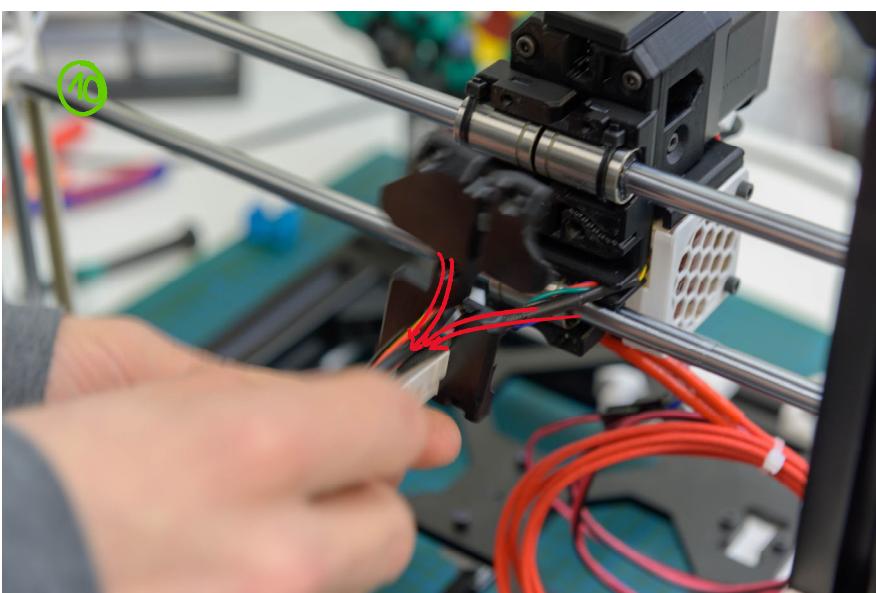
Then align it with the upper two bearings.



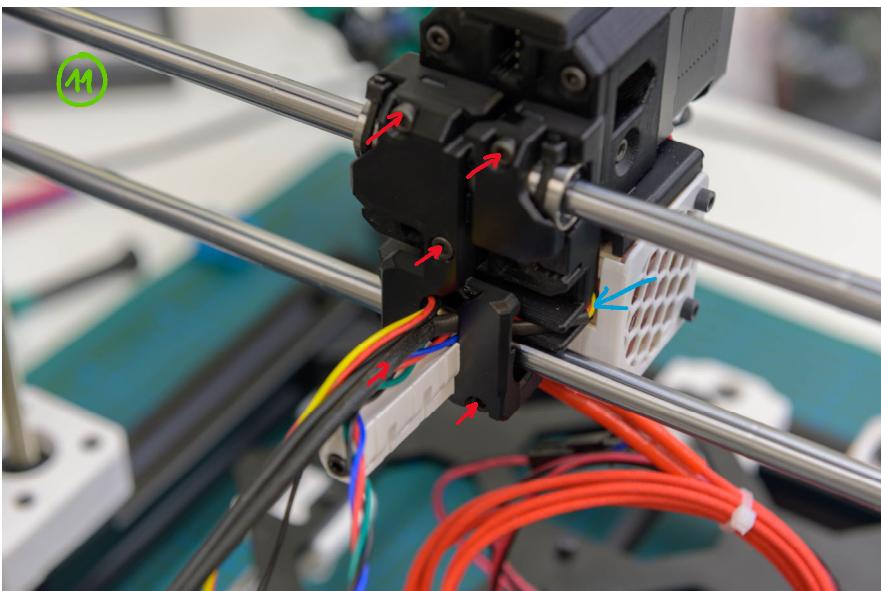
Using two zip ties fasten the extruder in place. Use the dedicated zip tie channels.



Orient the ratchets of the zip ties upwards and cut off the excess.

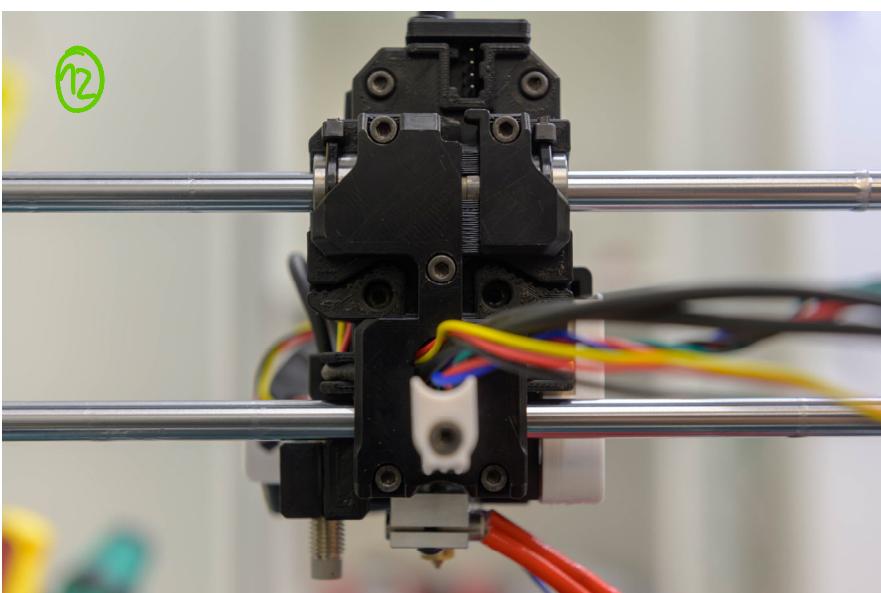


Take the X-carriage back and route the cables through the cable hole. Make sure that the cables stay in their cable guides in the X-carriage.



Carefully push the X-carriage back against the extruder and screw it in using 5 M3x10mm screws.

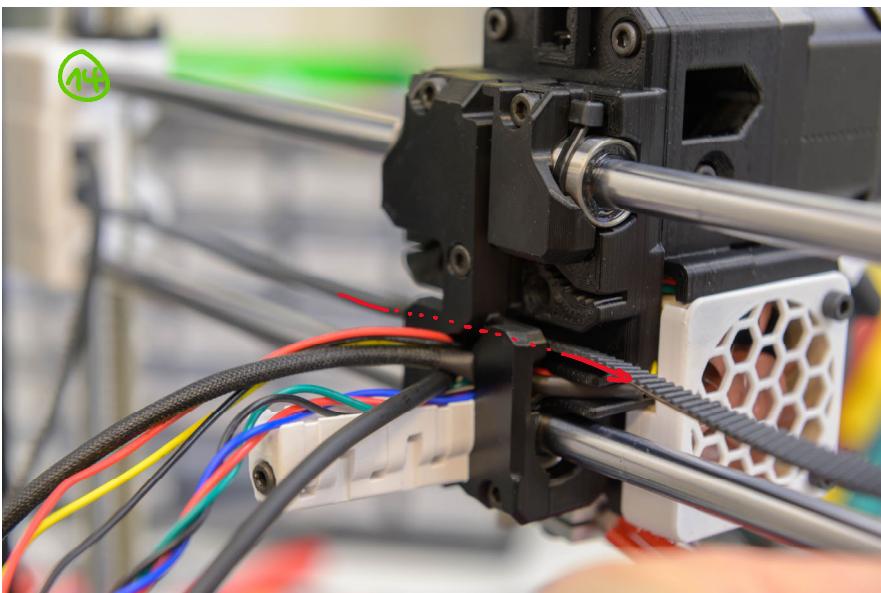
In this picture (see blue arrow) the extruder fan cable is sticking out too much. Pull it in by carefully pulling it through the X-carriage back a little further.



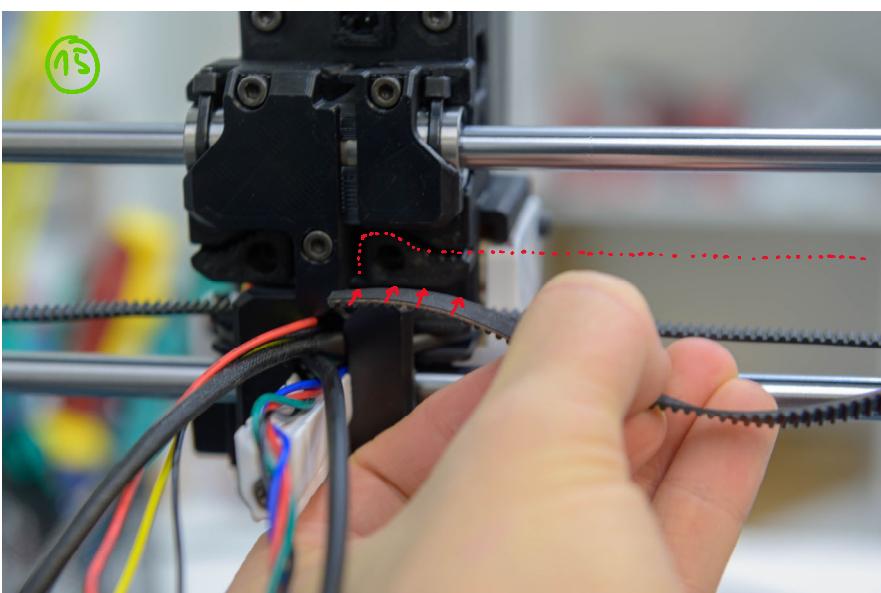
Heres a picture from a different angle.



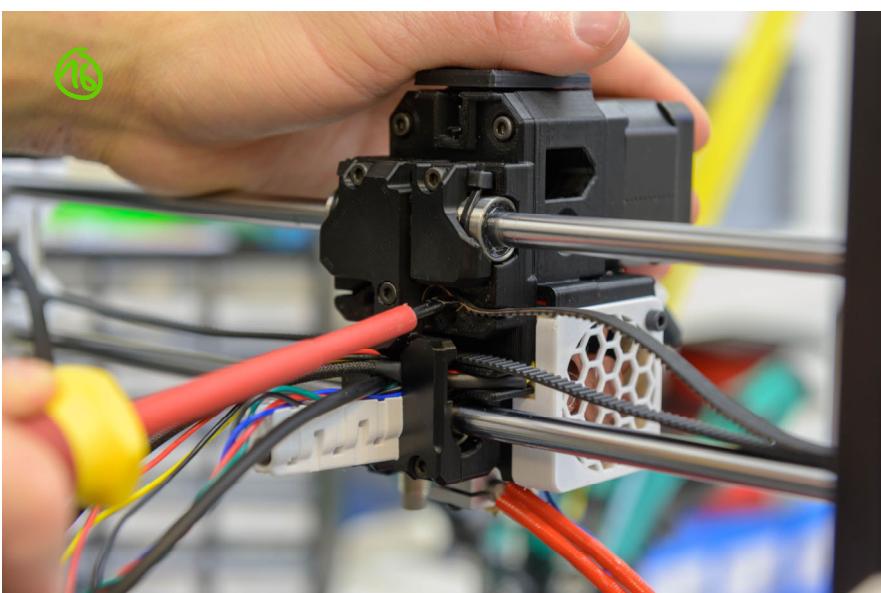
Push the belt through the tensioner.



Then pull it through the belt channel in the extruder. Go round the toothed pulley on the motor, and route it back through the X-motor mount.

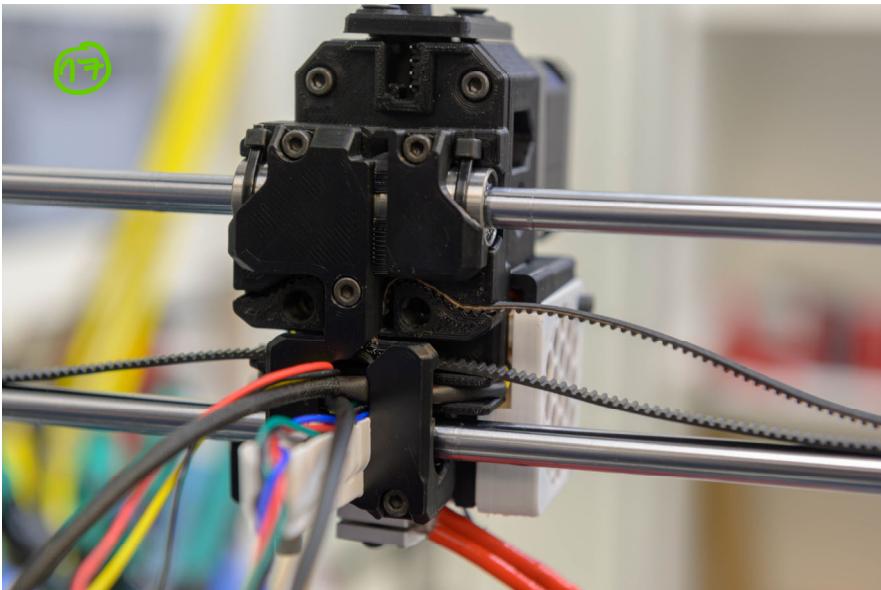


Push the end into the belt slot in the X-carriage.

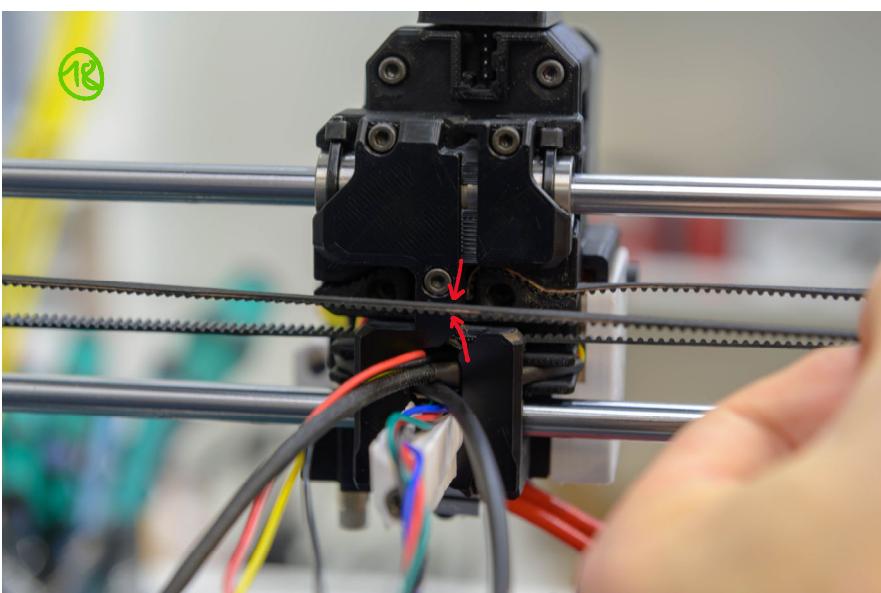


You may need something like a flat head screwdriver, just be careful not to damage the belt.

Take your time, this process can be tedious.



This is what it should look like.

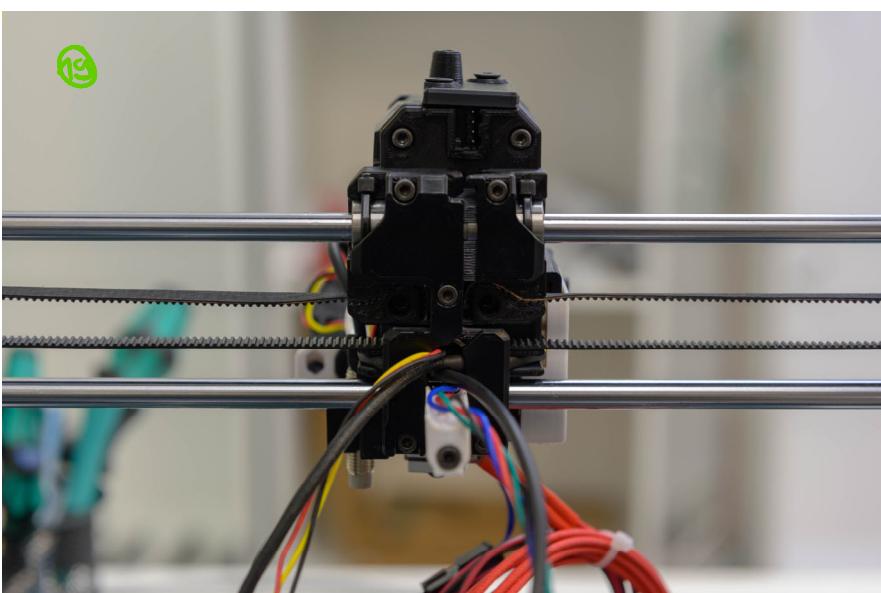


Grab the other end and hold it as seen in the picture in order to determine how much you will have to cut off.

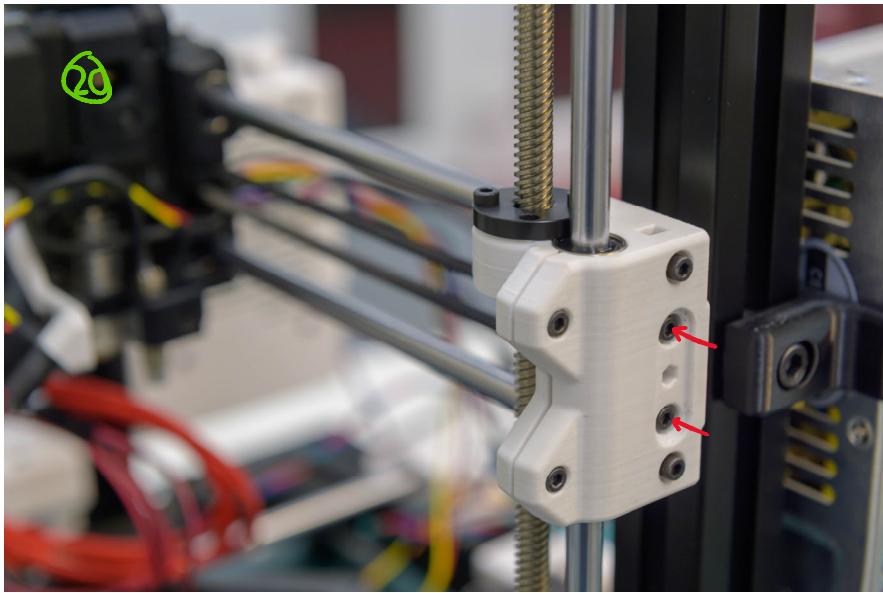
In this case the red arrows indicate where to cut.

Warning: Cut less than you think, it's better to be safe than sorry.

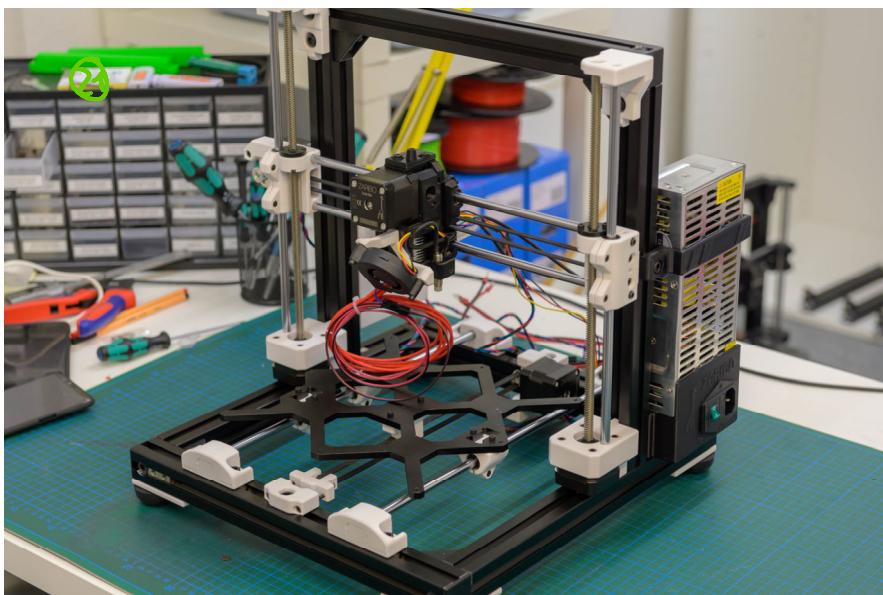
Don't try to put the belt under tension already, but also don't leave it too slack.



This is what it should look like after you've inserted the other end into the extruder.



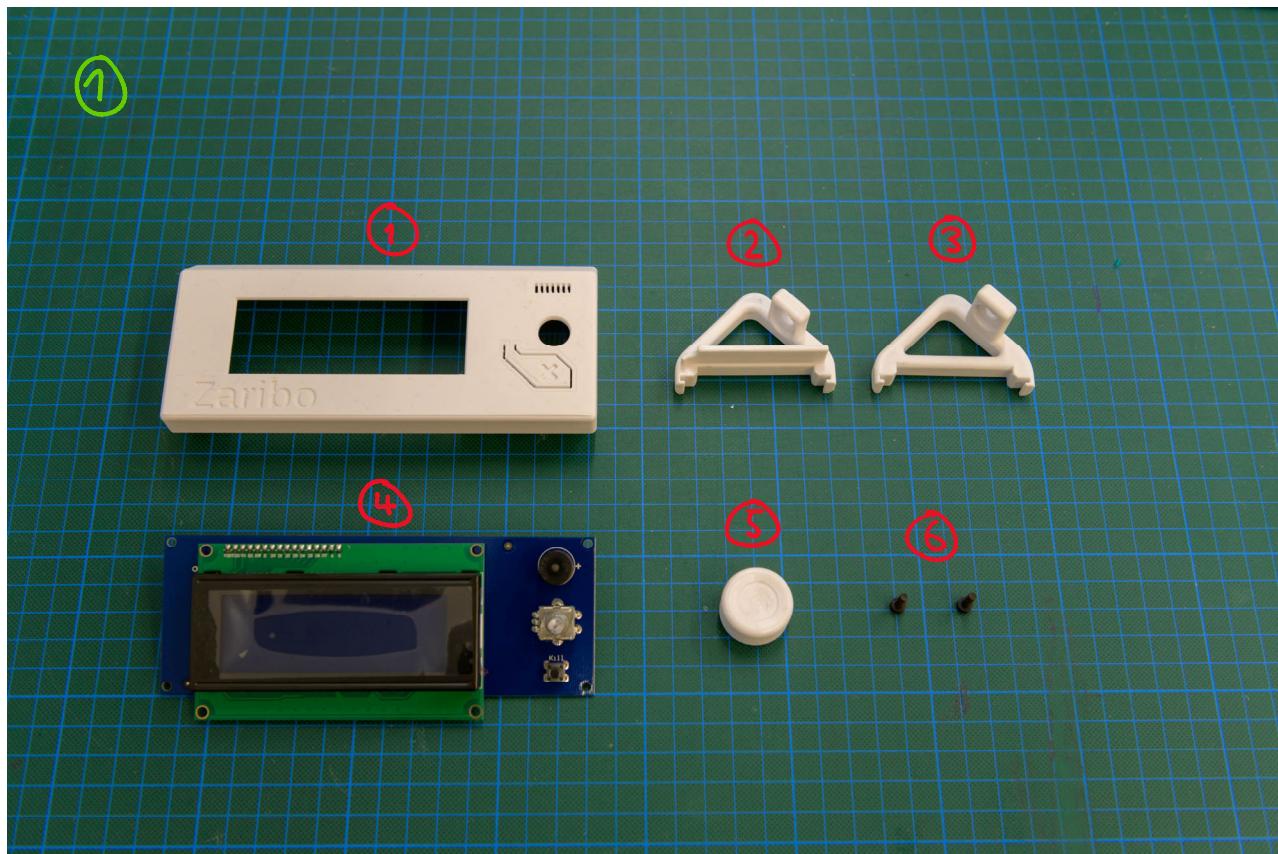
Use the marked screw to evenly build up tension on the belt. It should be as tight as on the Y-axis.



Your extruder is now complete (except for two little details we will cover in setup and calibration).

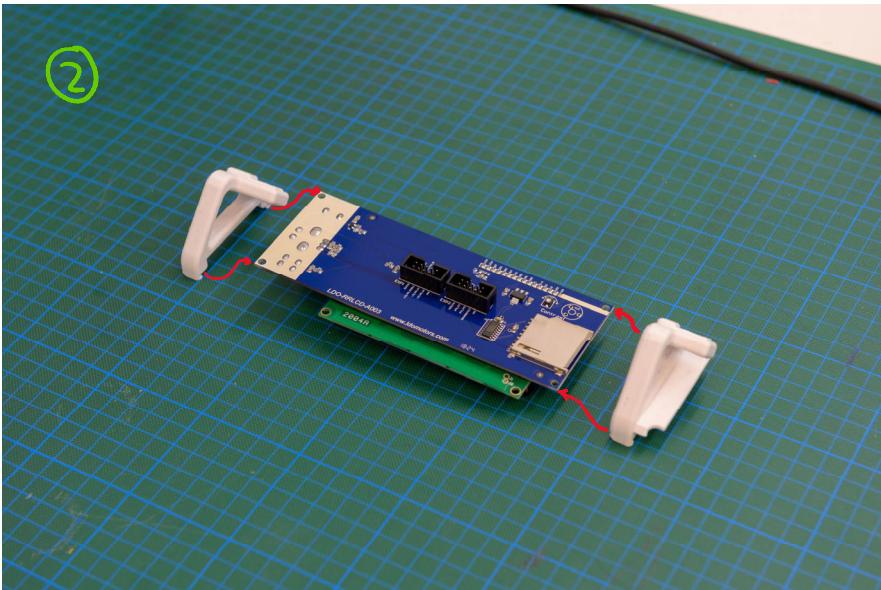
10: LCD

You will need the following parts to complete the LCD:

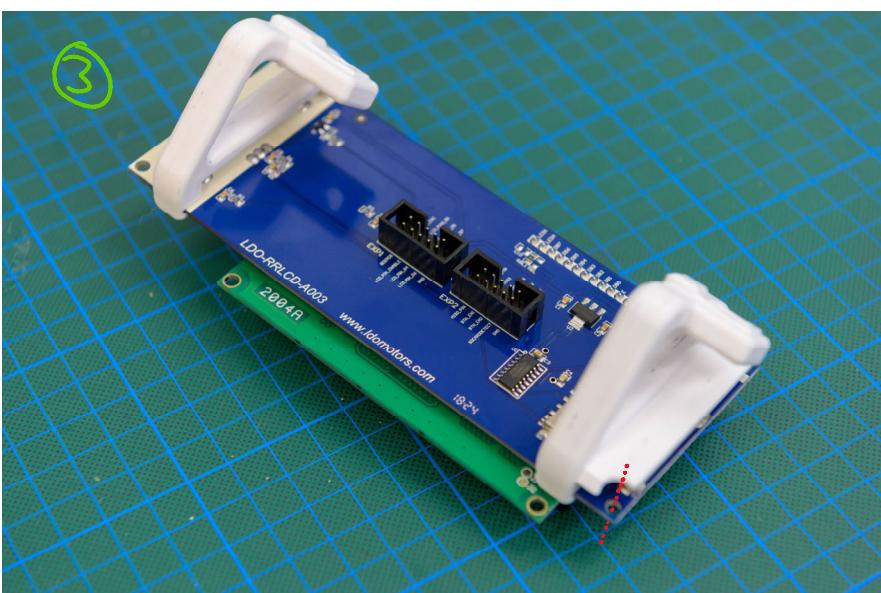


- ① 1x LCD cover
- ② 1x LCD bracket left
- ③ 1x LCD bracket right

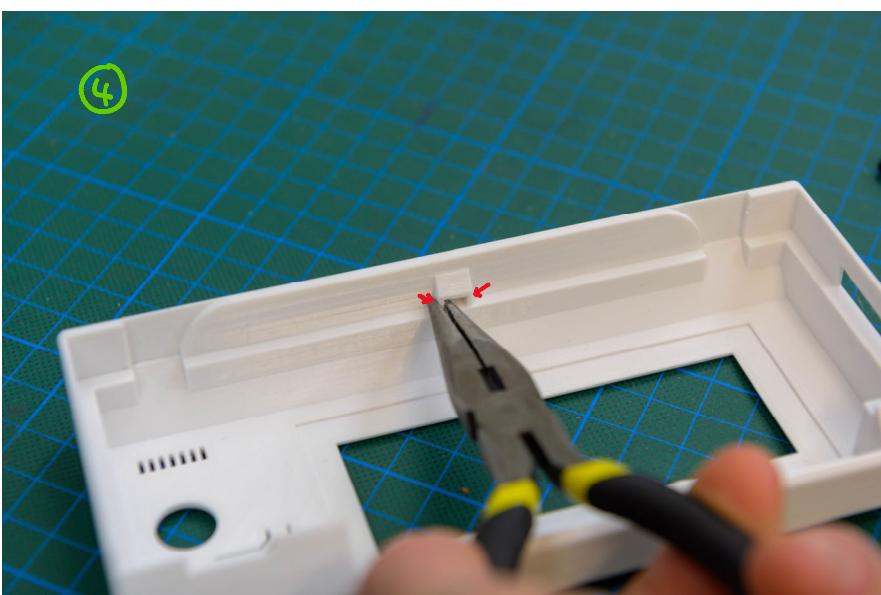
- ④ 1x LCD panel
- ⑤ 1x control knob
- ⑥ 2x M3x10mm screws



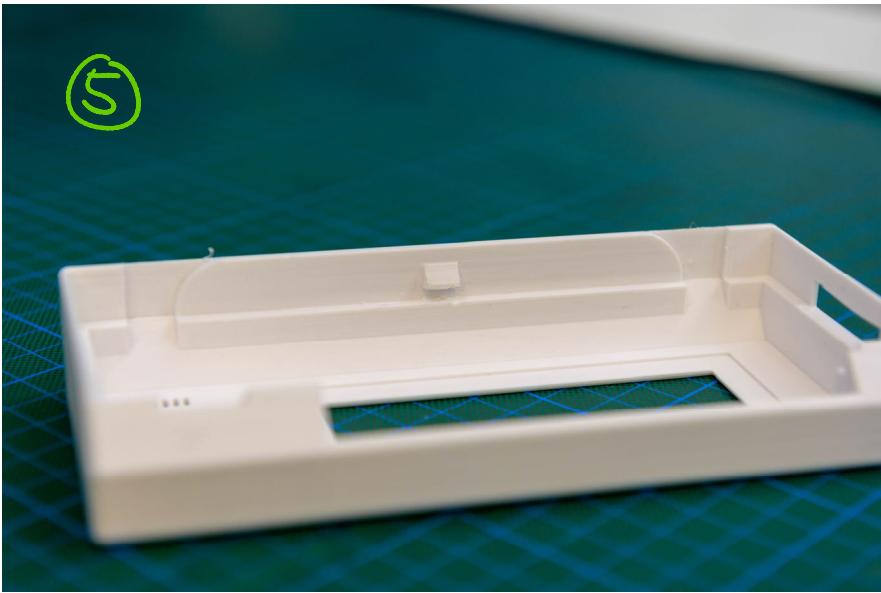
Slide the two brackets onto the LCD panel as shown.



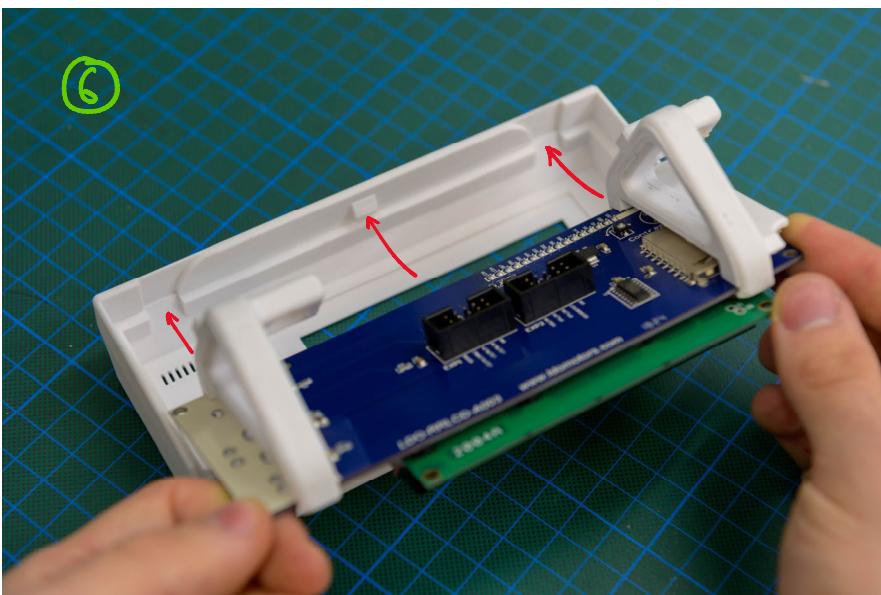
Position them like in the picture.



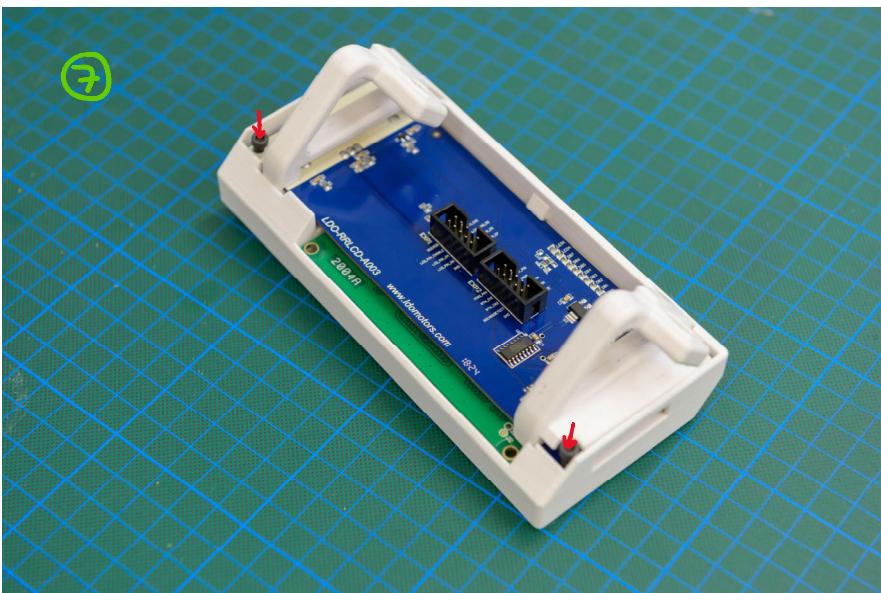
On the LCD cover, remove the two ribs marked by the arrows using pliers. You can use the scalpel to clean it up.



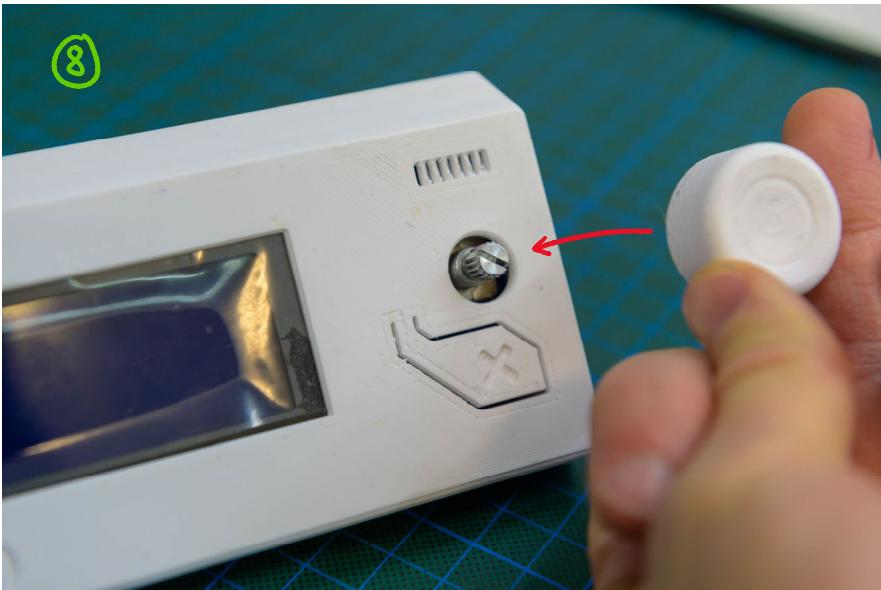
It should look like this.



Insert the LCD panel in the motion shown.



Screw the panel in place with the two M3x10mm screws. You can screw these in pretty tight.



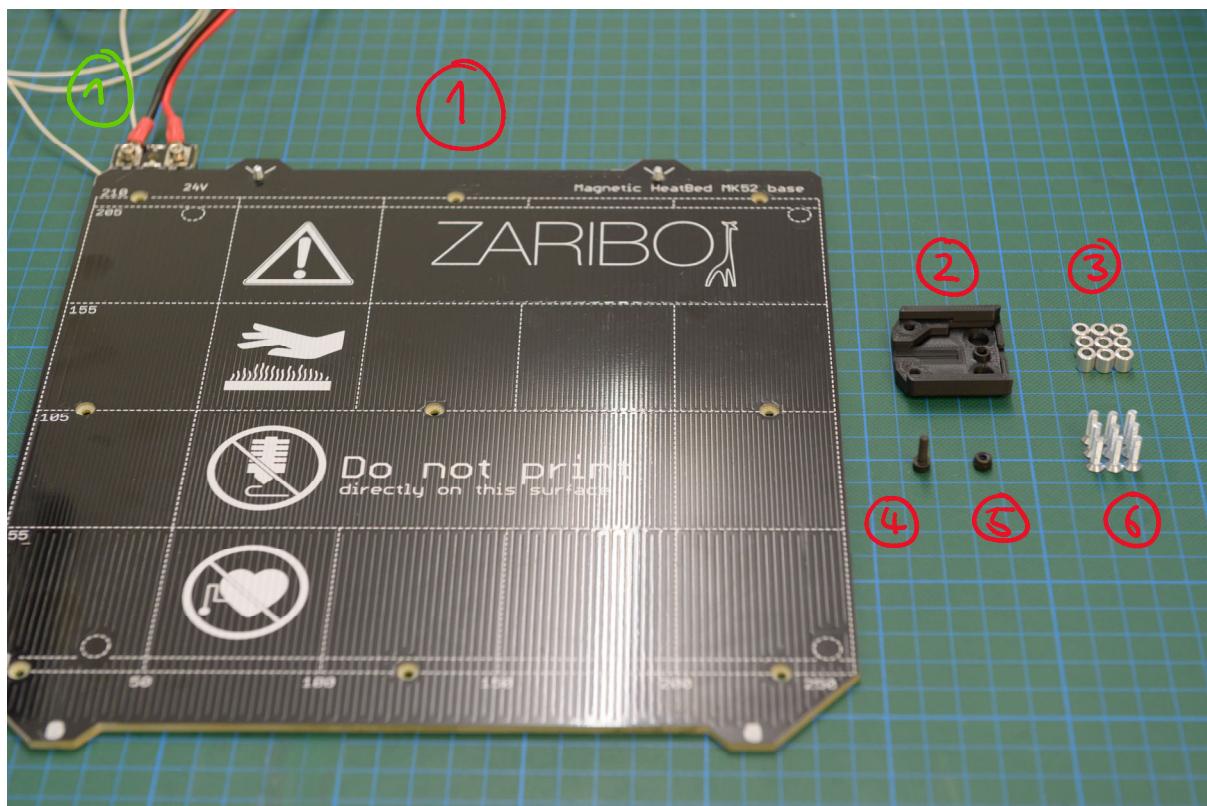
Put on the control knob.



Your LCD is now complete.

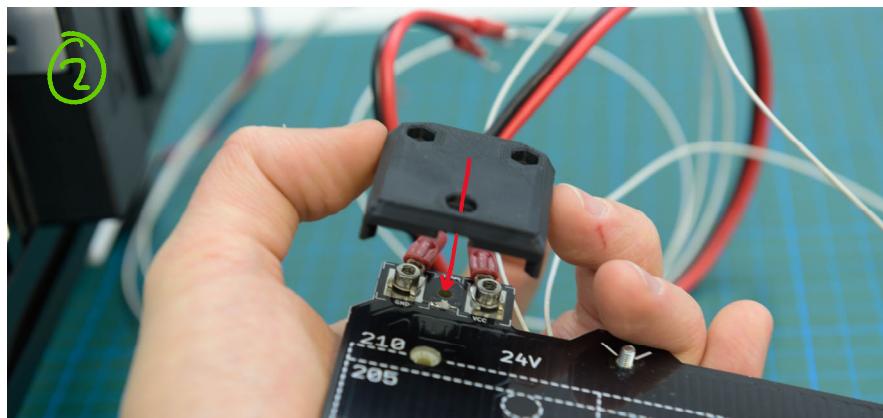
11: Y-axis (part 2/2)

You will need the following parts to complete part 2 of the Y-axis:

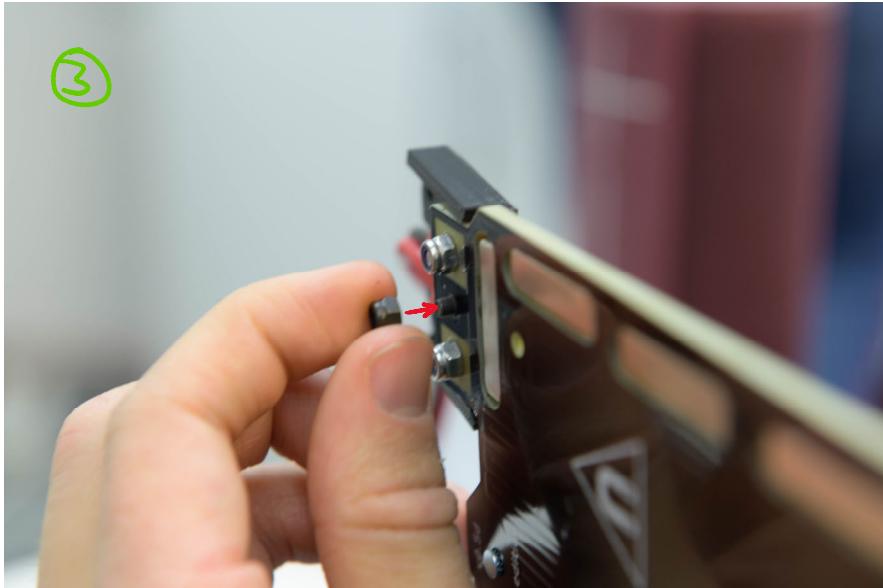
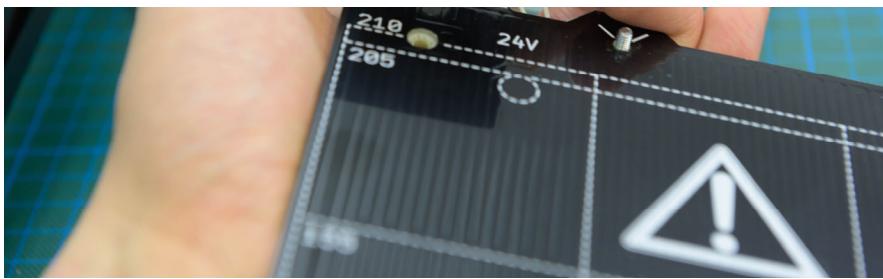


- ① 1x heat bed
- ② 1x heat bed cover 2
- ③ 9x spacers

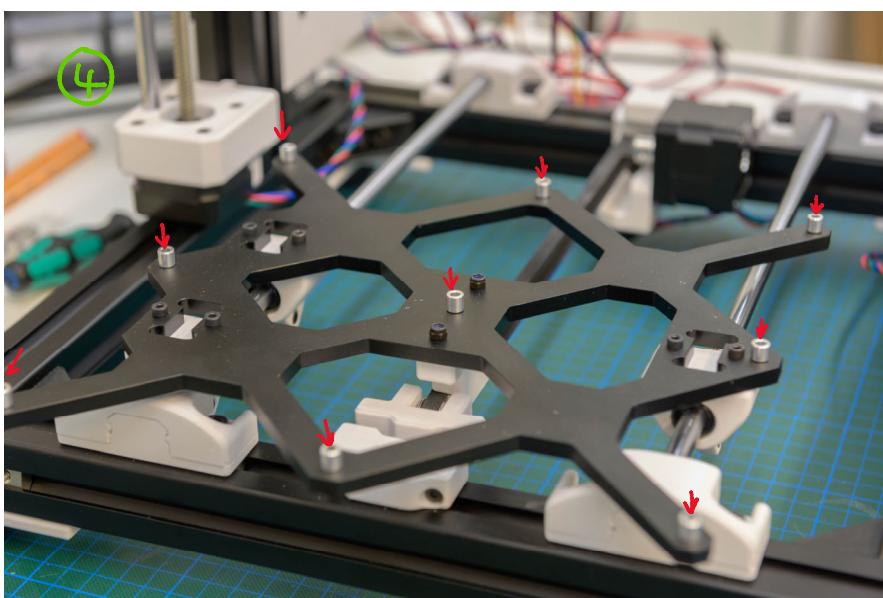
- ④ 1x M3x10mm screw
- ⑤ 1x M3 self locking nut
- ⑥ 9x M3x10mm countersunk screws



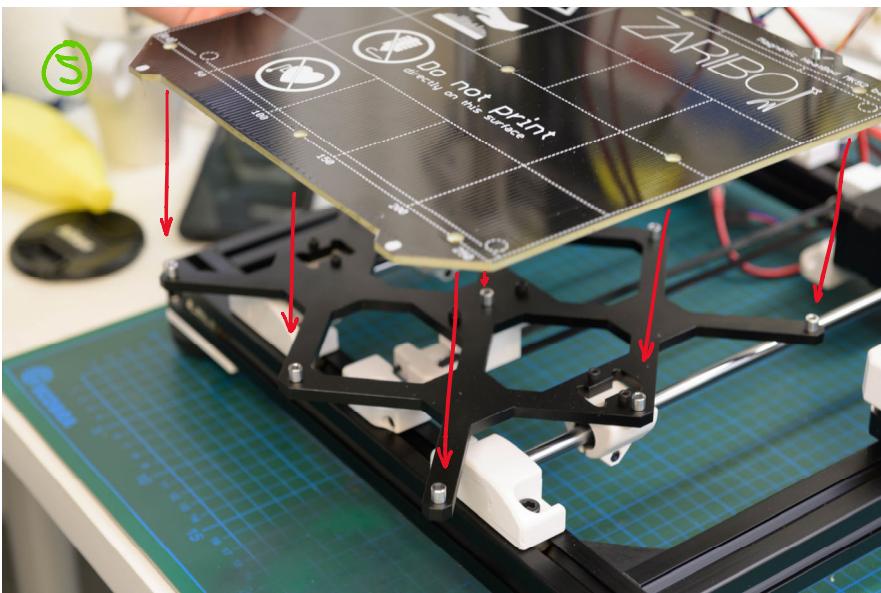
Place the head bed cover 2 on the contacts as seen in the picture and push through an M3x10mm screw through the marked hole.



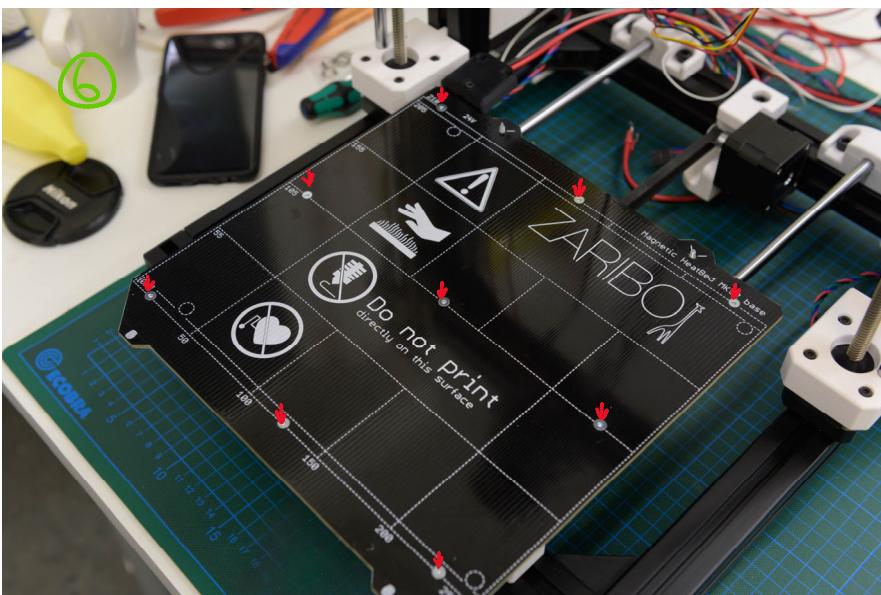
From the other side,
screw the cover in place
using a self locking nut.



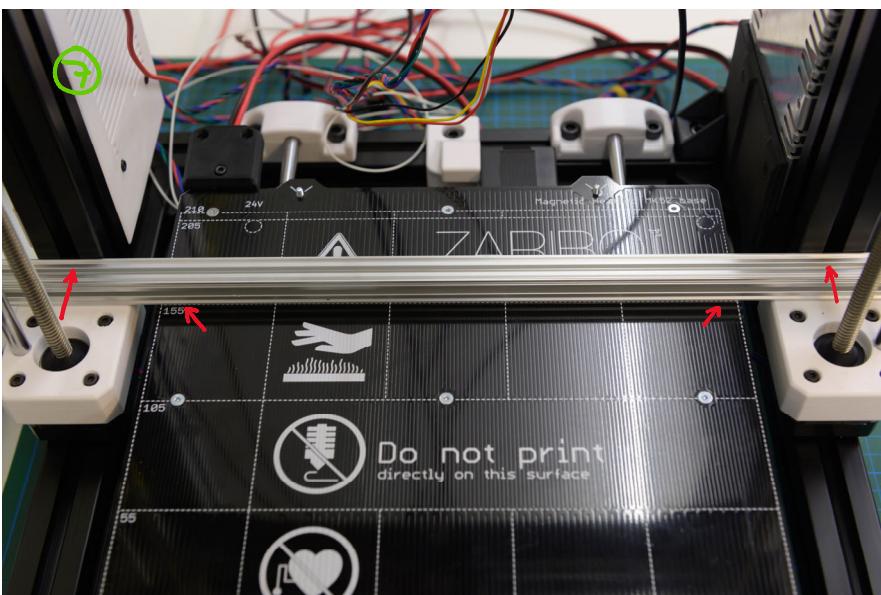
Place a spacer over each
of the 9 threaded holes
for the heat bed.



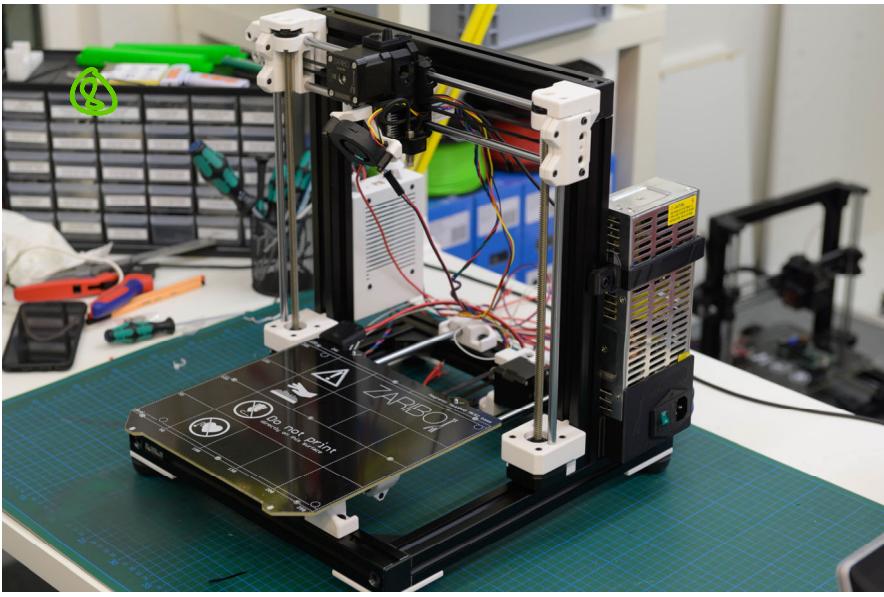
Carefully place the headbed onto the spacers and check that the holes are aligned with the spacers.



Screw the bed to the carriage using the 9 M3x10mm countersunk screws.



Use a long object you trust to be straight and push it against the front of the Z-extrusions. Check if the chosen object is perfectly aligned with the lines on the headbed. If it isn't, loosen the nine screws, and tighten them again while you hold the heat bed straight.



Your Y-axis is now
complete.