

Extruder Bearing Replacement

SOURCE:

<https://support.zortrax.com/extruder-bearing-replacement/>

Table Of Contents

Unplugging the Power Cable
Material Guide Removal
Unplugging the Extruder Cable
Unplugging all Cables from the Extruder PCB
Unscrewing the Extruder PCB
Extruder Lower Printed Cover Removal
Unscrewing the Extruder Aluminum Cover
Unscrewing the Extruder Motor
Extruder Motor Removal
Unscrewing the Extruder Bearing
Extruder Bearing Removal
Extruder Bearing Assembly
Extruder Motor Assembly, part 1
Extruder Motor Assembly, part 2
Extruder Aluminum Cover Assembly
Extruder Lower Printed Cover Assembly
Extruder PCB Assembly
Plugging all Cables into the Extruder PCB
Plugging the Extruder Cable
Material Guide Installation
Plugging the Power Cable

The extruder bearing supports extrusion by pressing the material to the extruder motor sprocket wheel during loading and the printing process. Therefore, when the material in your printer is not being extruded when loading or printing, or the sprocket wheel is making clicking sounds, the extruder bearing may be faulty and should be replaced. Follow the steps from this manual to see the correct replacement procedure.

If the material is loaded into the extruder, unload the material using the “Material” -> “Unload material” option in the printer menu.

The following manual shows the M200 repair work. For the M300, these procedures are the same.

Unplugging the Power Cable



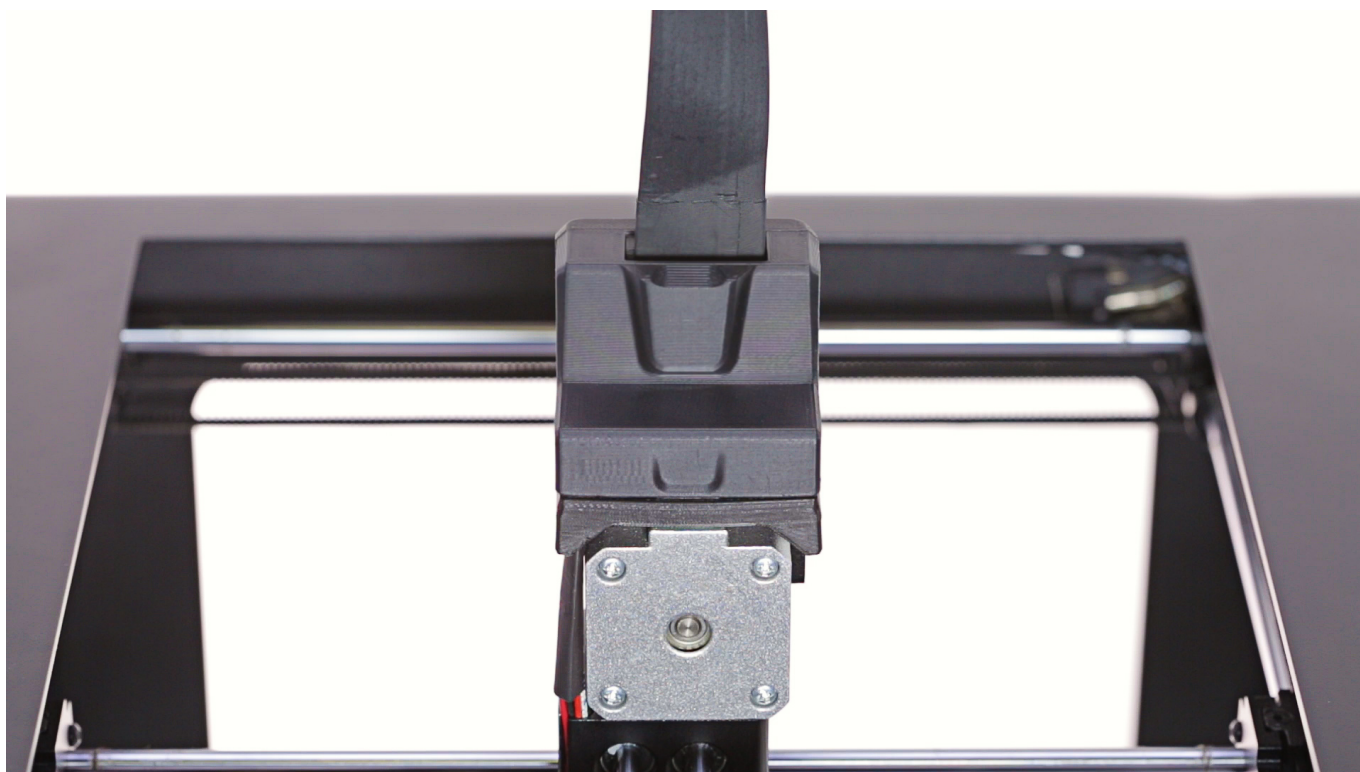
Turn off the printer and unplug the power cable and wait a few minutes for all the capacitors to discharge.

Material Guide Removal



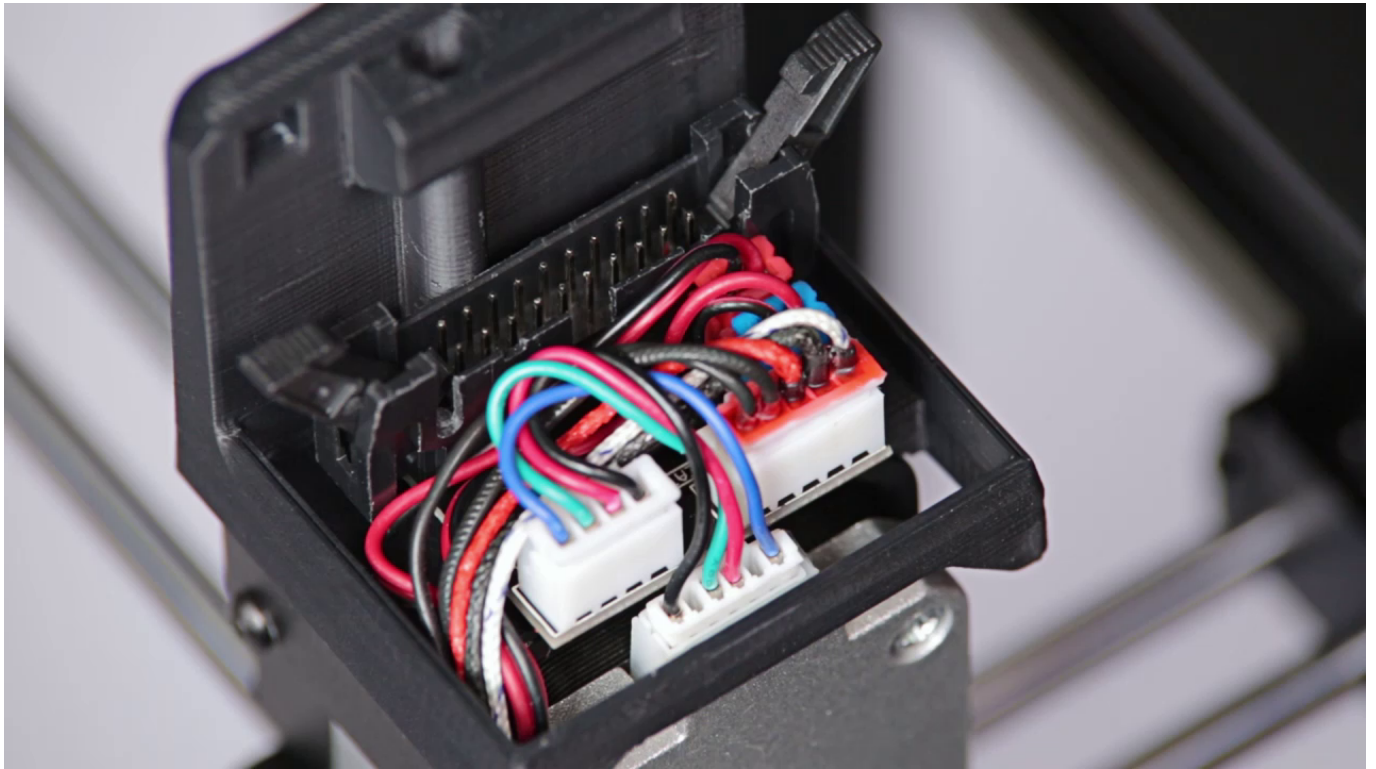
Detach the material guide from the extruder cover. Next, separate the guide from the extruder cable.

Unplugging the Extruder Cable



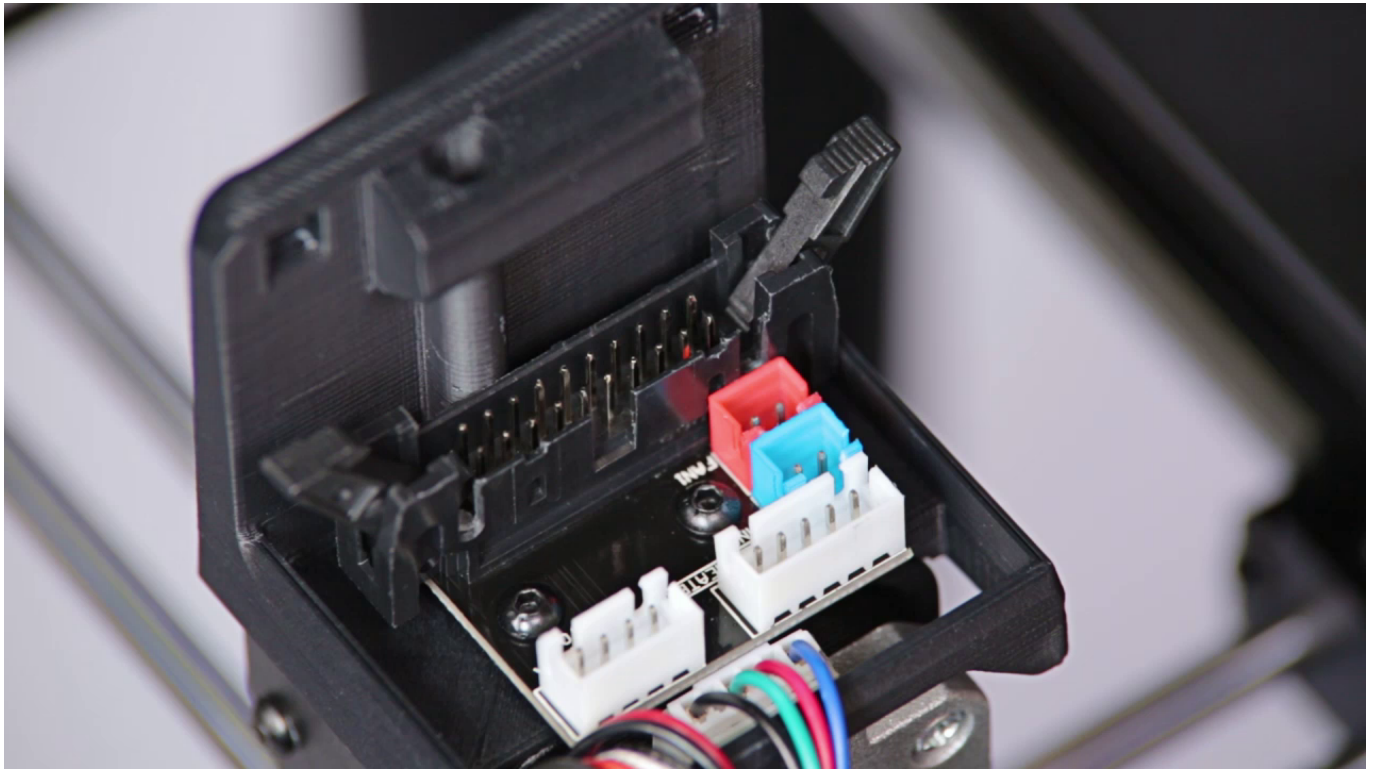
Detach the extruder upper printed cover and unplug the extruder cable.

Unplugging all Cables from the Extruder PCB



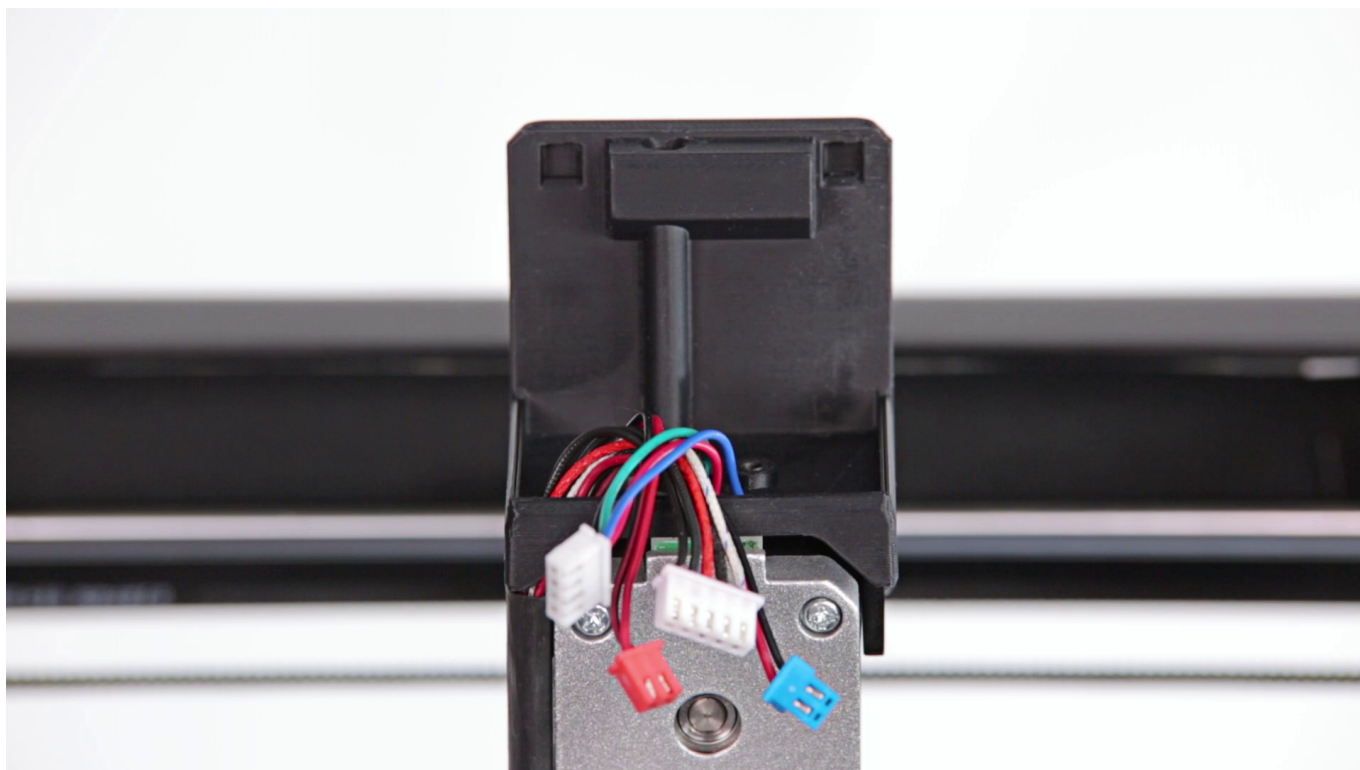
Unplug all the cables from the extruder PCB.

Unscrewing the Extruder PCB



Unscrew the two screws that secure the extruder PCB using a 2mm Allen key. Remove the PCB from the extruder.

Extruder Lower Printed Cover Removal



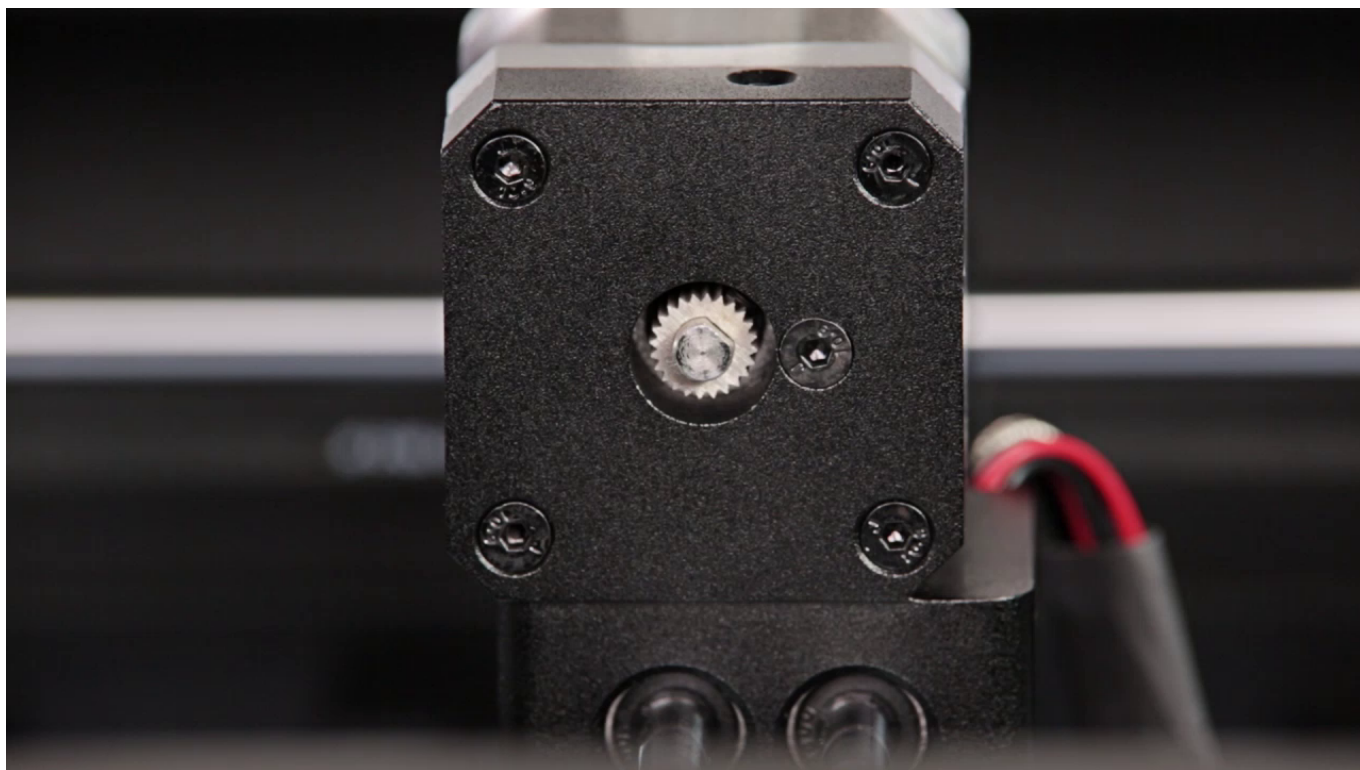
Remove the extruder lower printed cover.

Unscrewing the Extruder Aluminum Cover



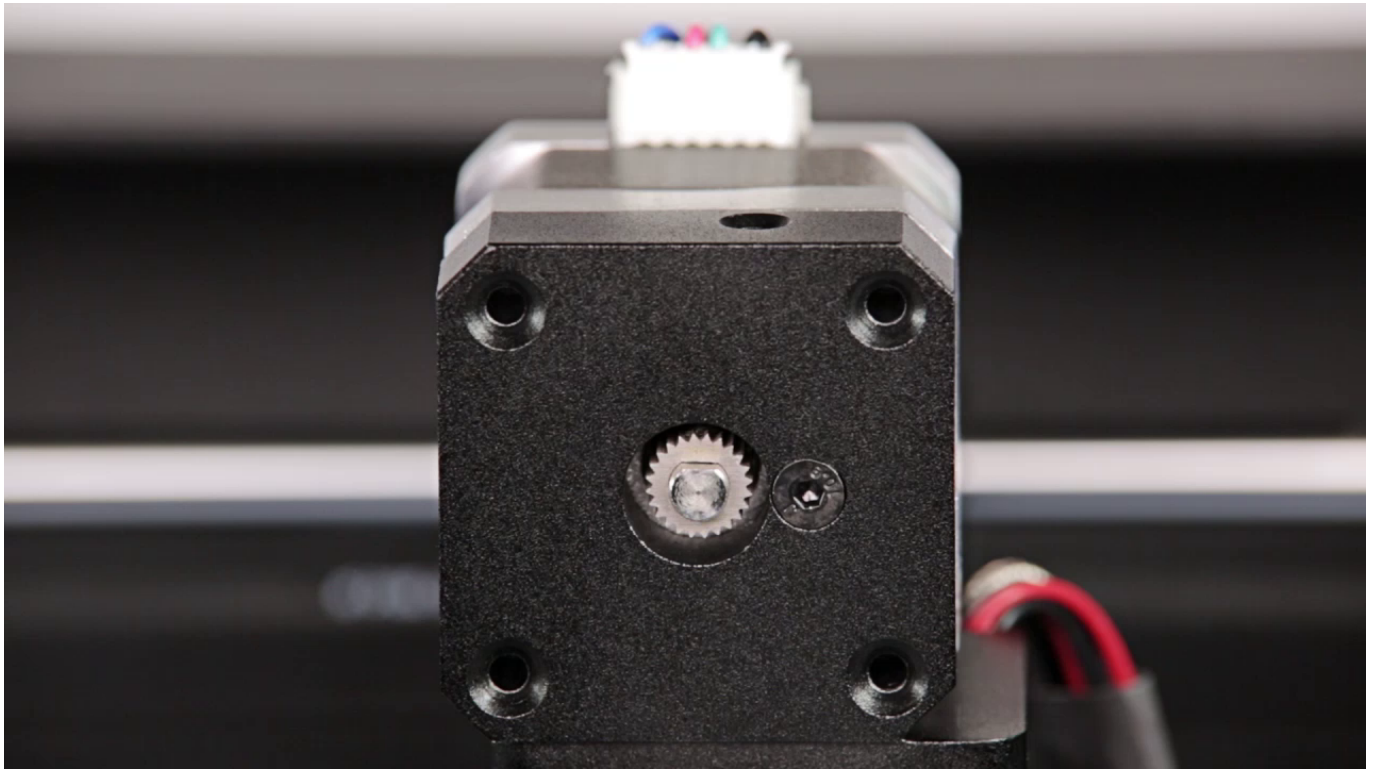
Unscrew the screws that secure the extruder aluminum cover on both sides of the extruder. Separate the cover from the extruder motor.

Unscrewing the Extruder Motor



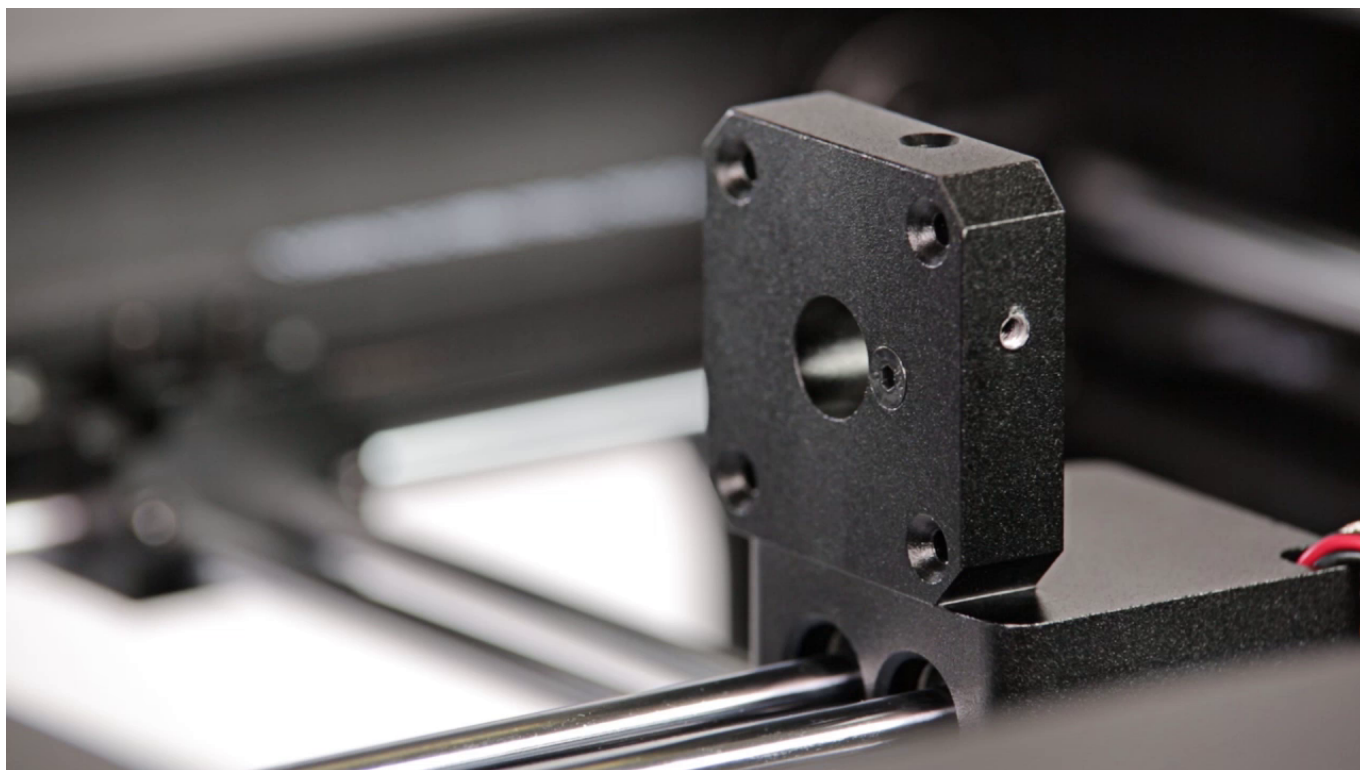
Unscrew the four screws that secure the extruder motor.

Extruder Motor Removal



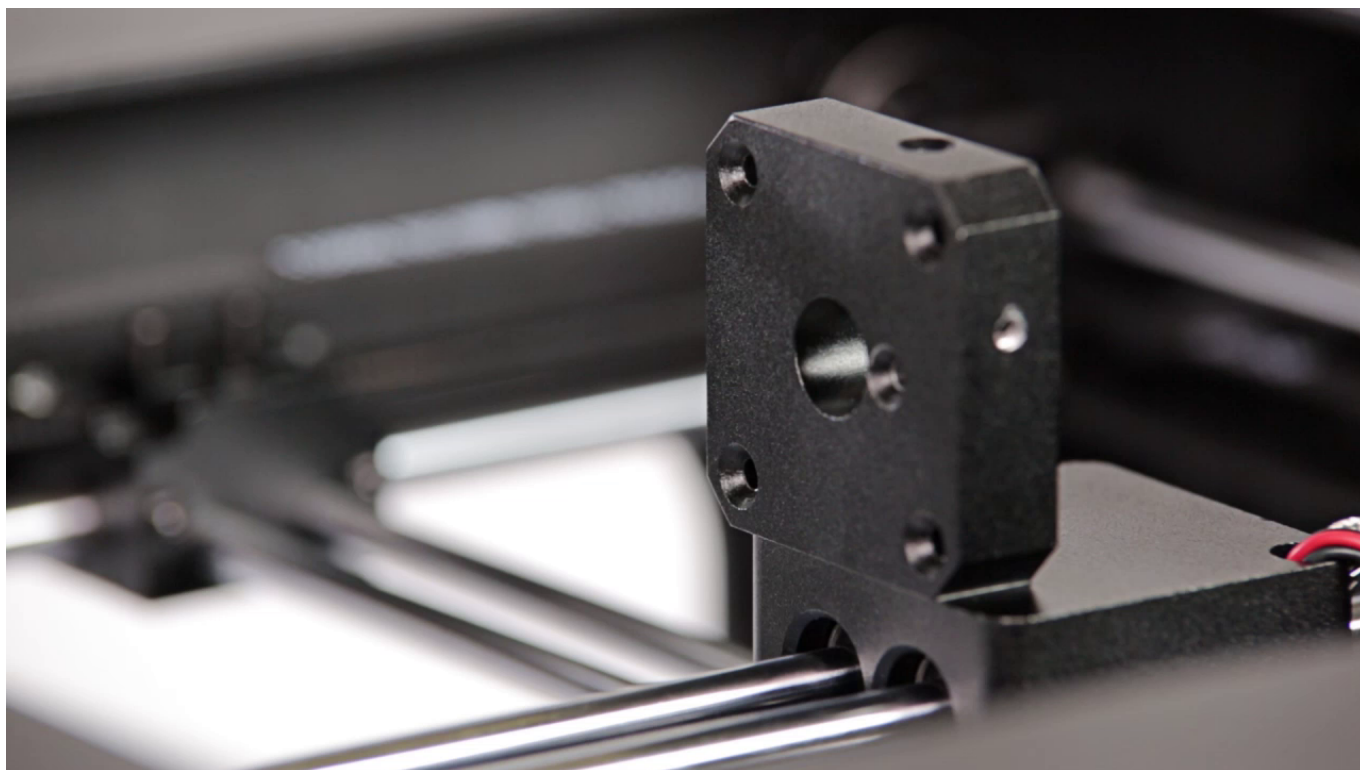
Separate the extruder motor from the extruder block.

Unscrewing the Extruder Bearing



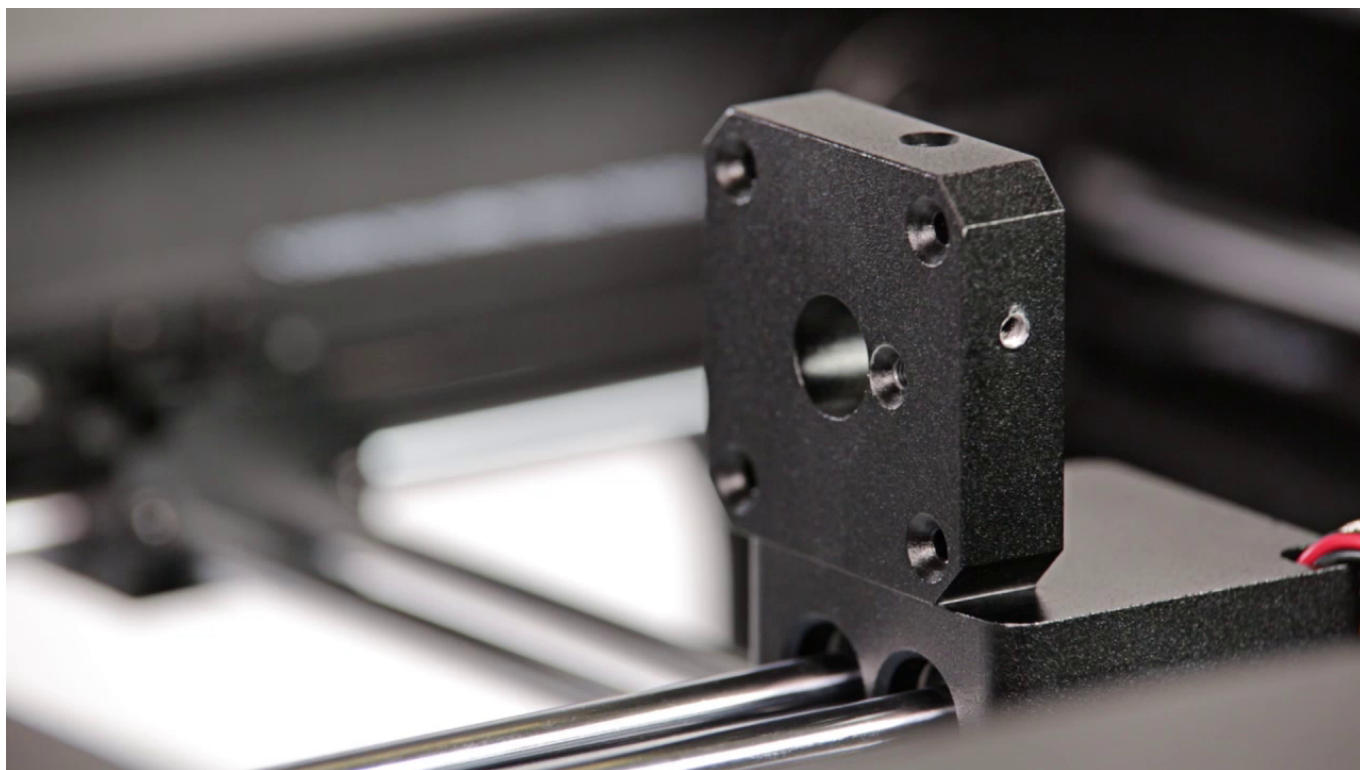
Unscrew one screw that secures the extruder bearing.

Extruder Bearing Removal



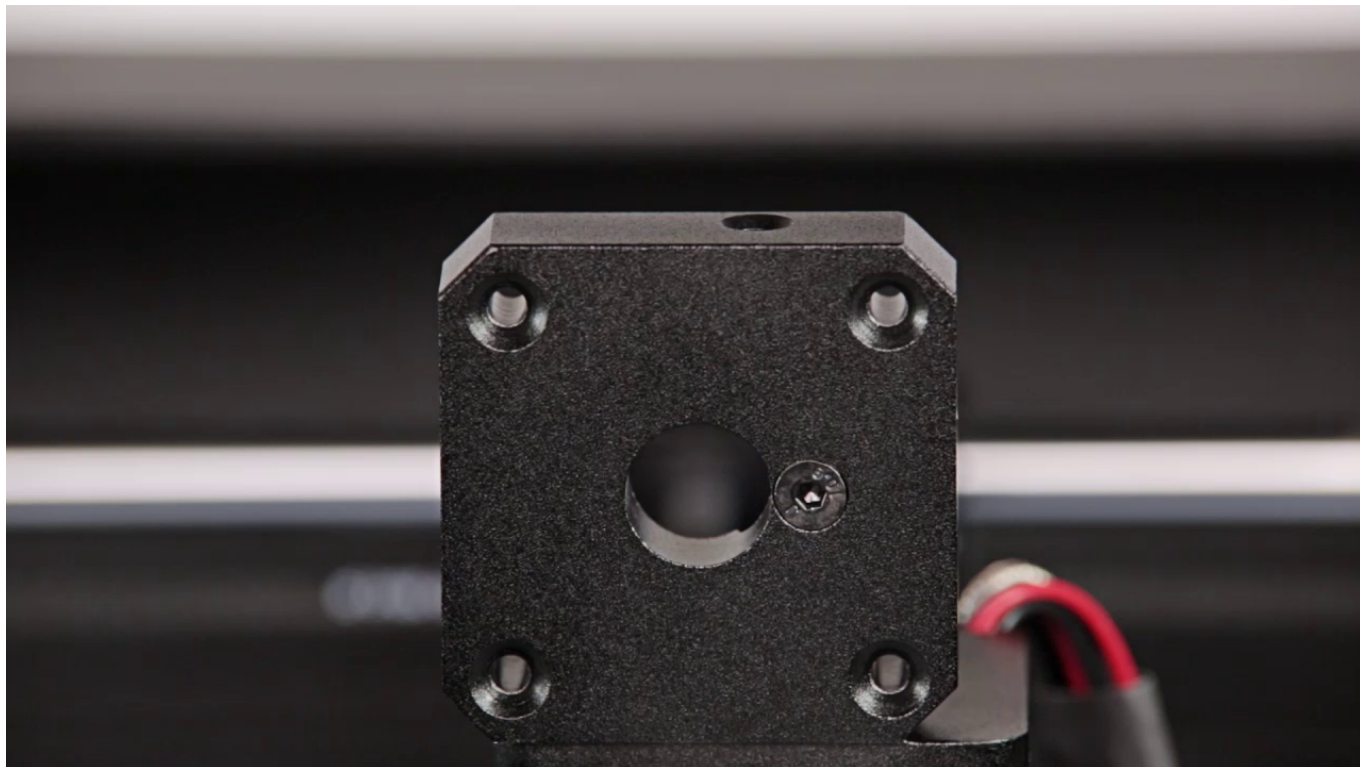
Remove the extruder bearing using tweezers.

Extruder Bearing Assembly



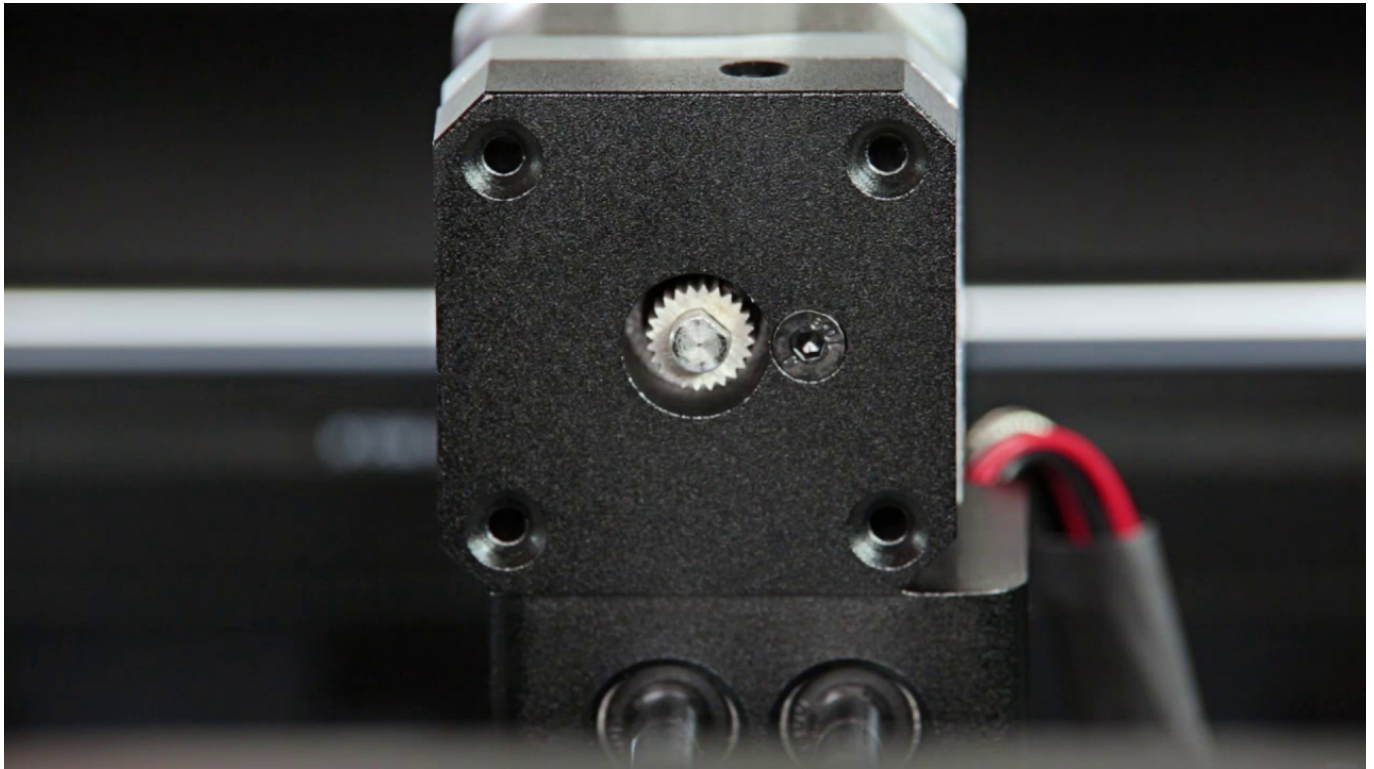
Insert the new bearing into the extruder block and secure it with the screw.

Extruder Motor Assembly, part 1



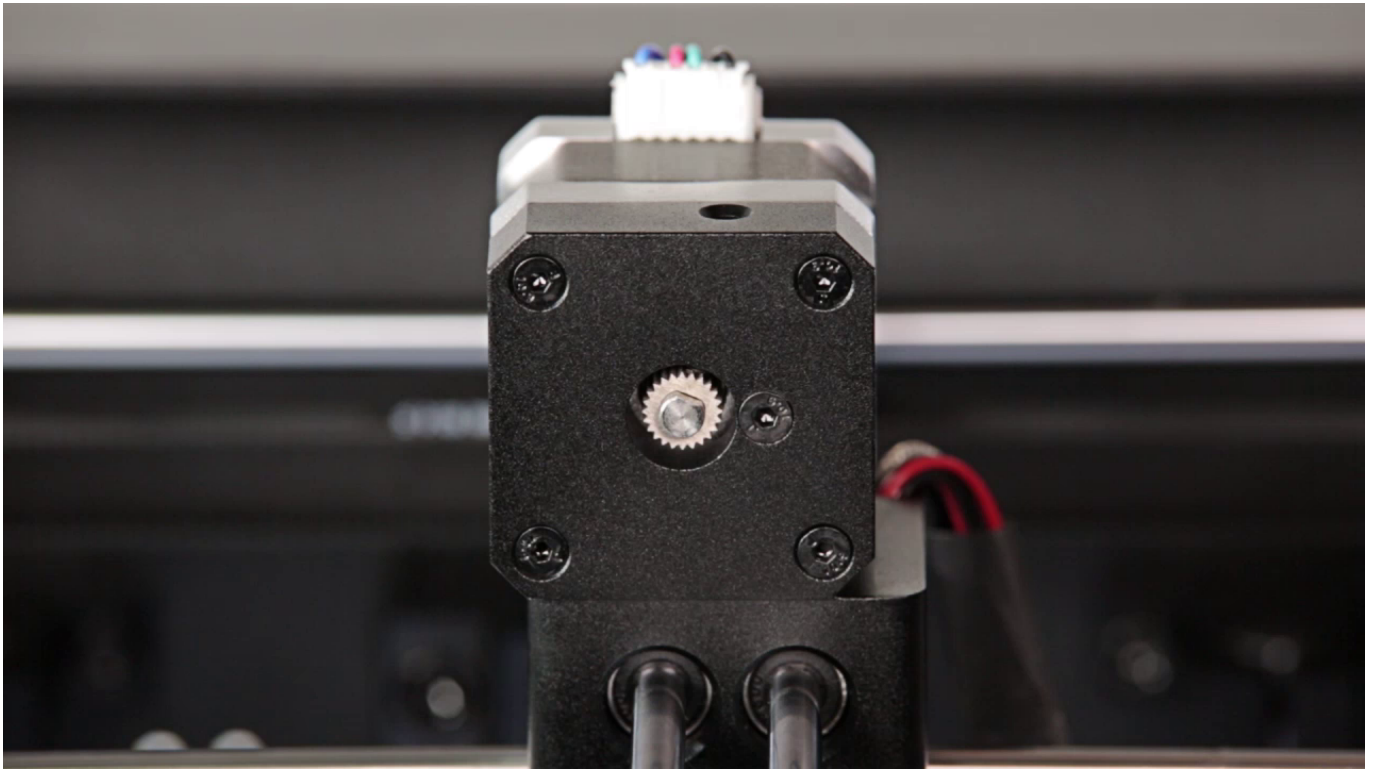
Reattach the extruder motor to the extruder block.

Extruder Motor Assembly, part 2



Secure the motor with the screws. Press the motor to the right side so that the bearing rack is as close to the bearing as possible. Tighten the screws crosswise in the following order: 1-4, 2-3.

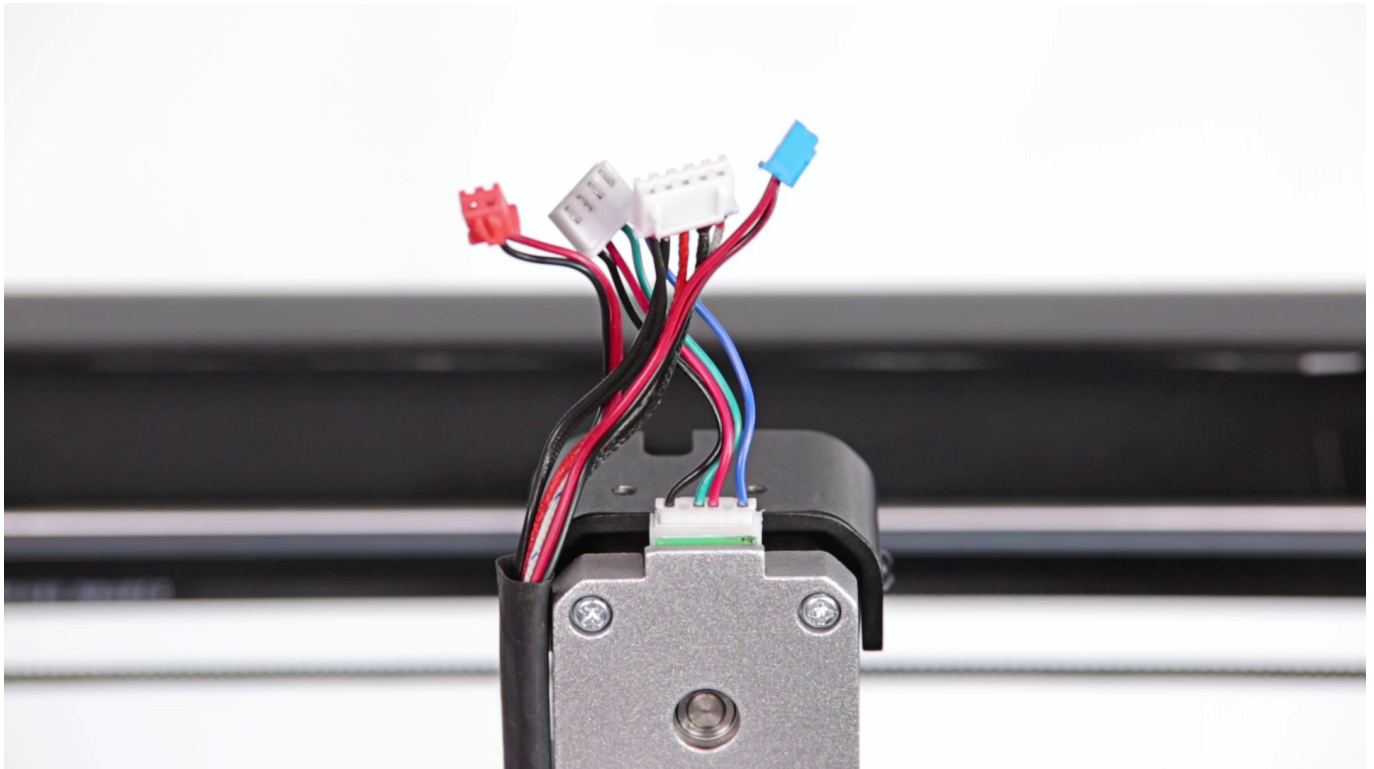
Extruder Aluminum Cover Assembly



Reattach the extruder aluminum cover to the extruder and secure it with the screws.

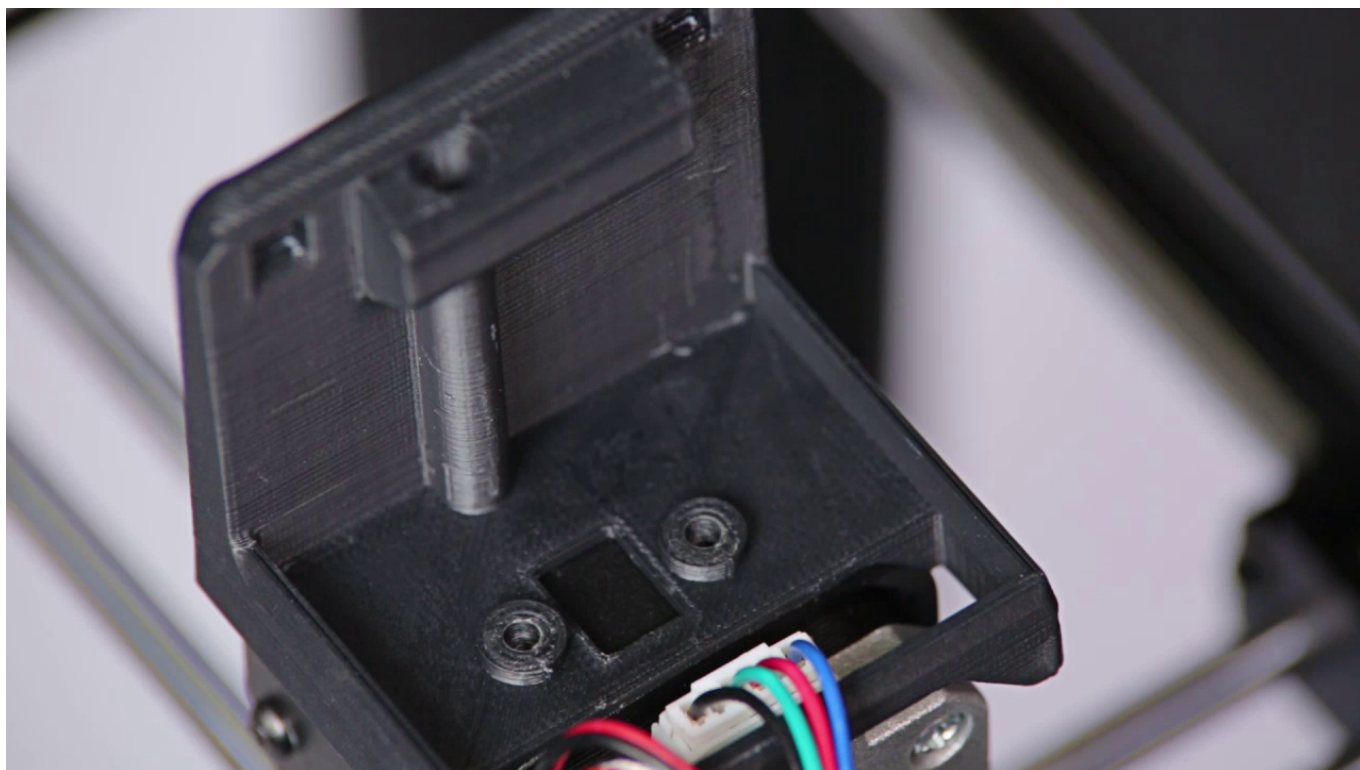
Remember to screw the aluminum cover evenly on both sides to avoid deformation.

Extruder Lower Printed Cover Assembly



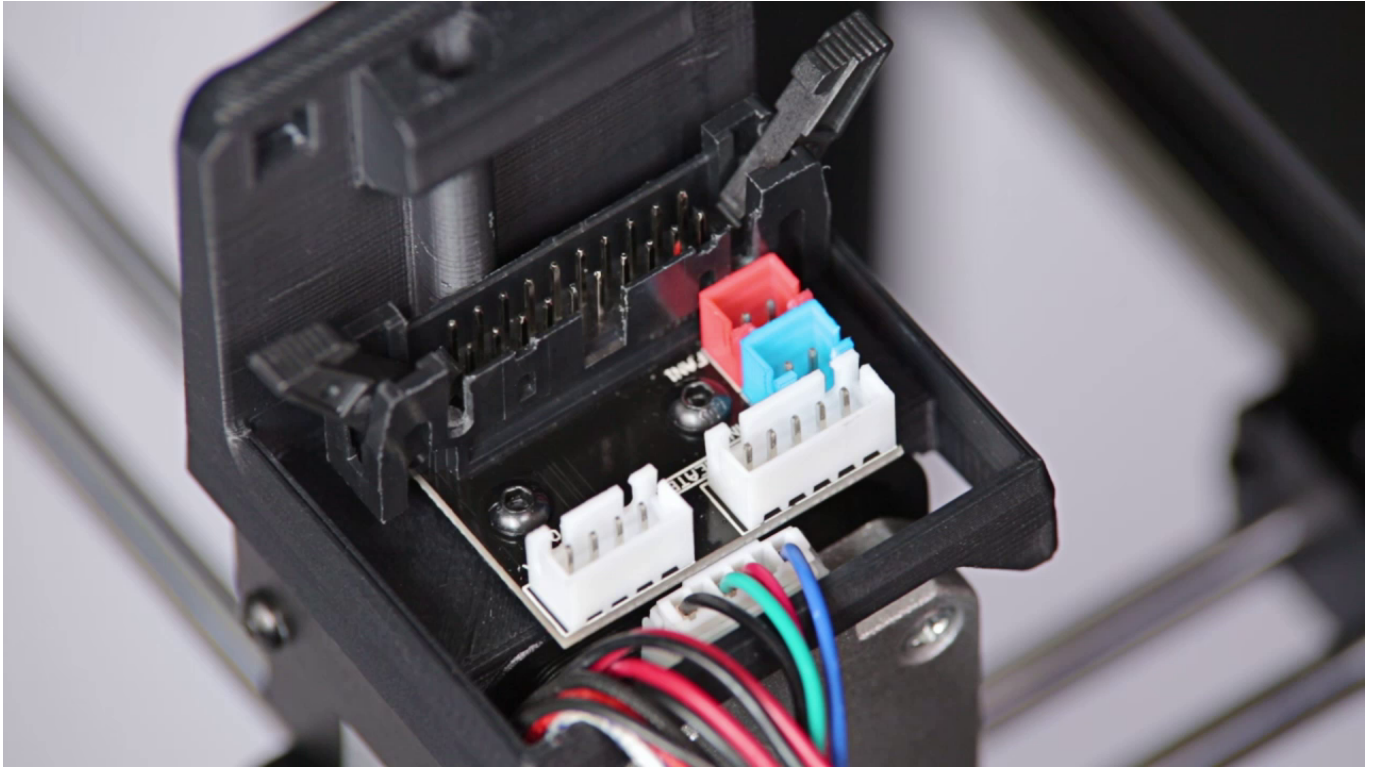
Attach the new extruder lower printed cover to the extruder.

Extruder PCB Assembly



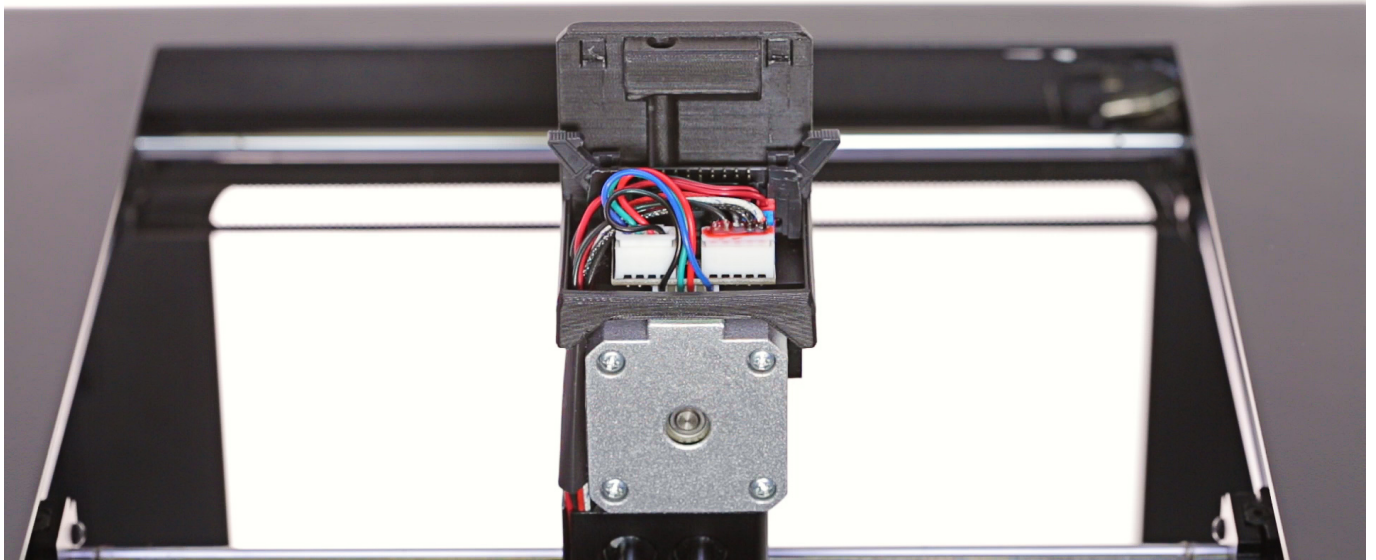
Place the extruder PCB in its place and secure it with the two screws.

Plugging all Cables into the Extruder PCB



Plug all the cables in. Remember to arrange the cables so that they don't get damaged, e.g. by wrapping against each other.

Plugging the Extruder Cable



Plug the extruder cable in, and then attach the extruder upper cover to the lower cover.

MAKE SURE THE EXTRUDER CABLE IS PROPERLY PLUGGED IN.

Material Guide Installation



Attach the material guide to the extruder cover. Next, secure the guide to the extruder cable with the material guide clamps.

MAKE SURE THE MATERIAL GUIDE IS PROPERLY INSTALLED IN THE COVER.

Plugging the Power Cable



Plug the power cable in.