

# Extruder Fans Replacement

SOURCE:

<https://support.zortrax.com/m200-plus-extruder-fans-replacement/>

## Table Of Contents

Unplugging the Power Cable

Extruder Upper Cover Removal

Unplugging the Extruder Cable

Hotend Removal

Heater and Thermocouple Removal

Heater and Thermocouple Removal (from the Extruder)

Extruder Upper Fan Replacement

- Unplugging the Extruder Upper Fan Cable

- Unscrewing the Extruder Upper Fan

- Extruder Upper Fan Assembly, part 1

- Extruder Upper Fan Assembly, part 2

Extruder Lower Fan 1 Replacement

- Unplugging the Extruder Lower Fan Cable

- Unscrewing the Extruder Lower Fan

- Extruder Lower Fan Removal, part 1

- Extruder Lower Fan Removal, part 2

- Extruder Lower Fan Assembly, part 1

- Extruder Lower Fan Assembly, part 2

- Securing the Extruder Lower Fan

- Plugging in the Extruder Lower Fan Cable

Extruder Lower Fan 2 Replacement

- Unplugging the Extruder Lower Fan Cable

- Unscrewing the Extruder Lower Fan

- Extruder Lower Fan Removal, part 1

- Extruder Lower Fan Removal, part 2

- Extruder Lower Fan Assembly, part 1

- Extruder Lower Fan Assembly, part 2

- Securing the Extruder Lower Fan

- Plugging in the Extruder Lower Fan Cable

Heater and Thermocouple Assembly

Heater and Thermocouple Assembly (in the Hotend)

Hotend Assembly

Plugging the Extruder Cable

# Extruder Upper Cover Assembly

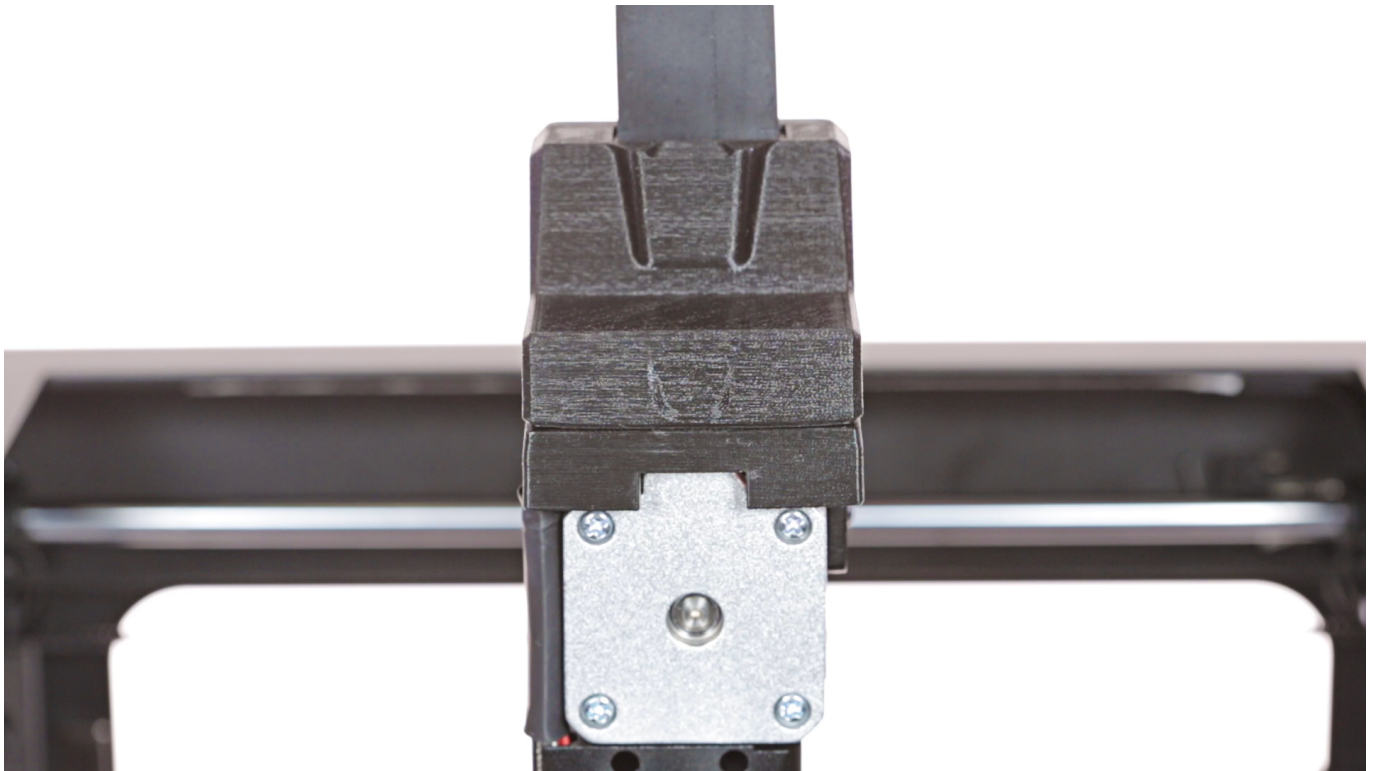
## Unplugging the Power Cable



Turn off the printer and unplug the power cable.



## Extruder Upper Cover Removal



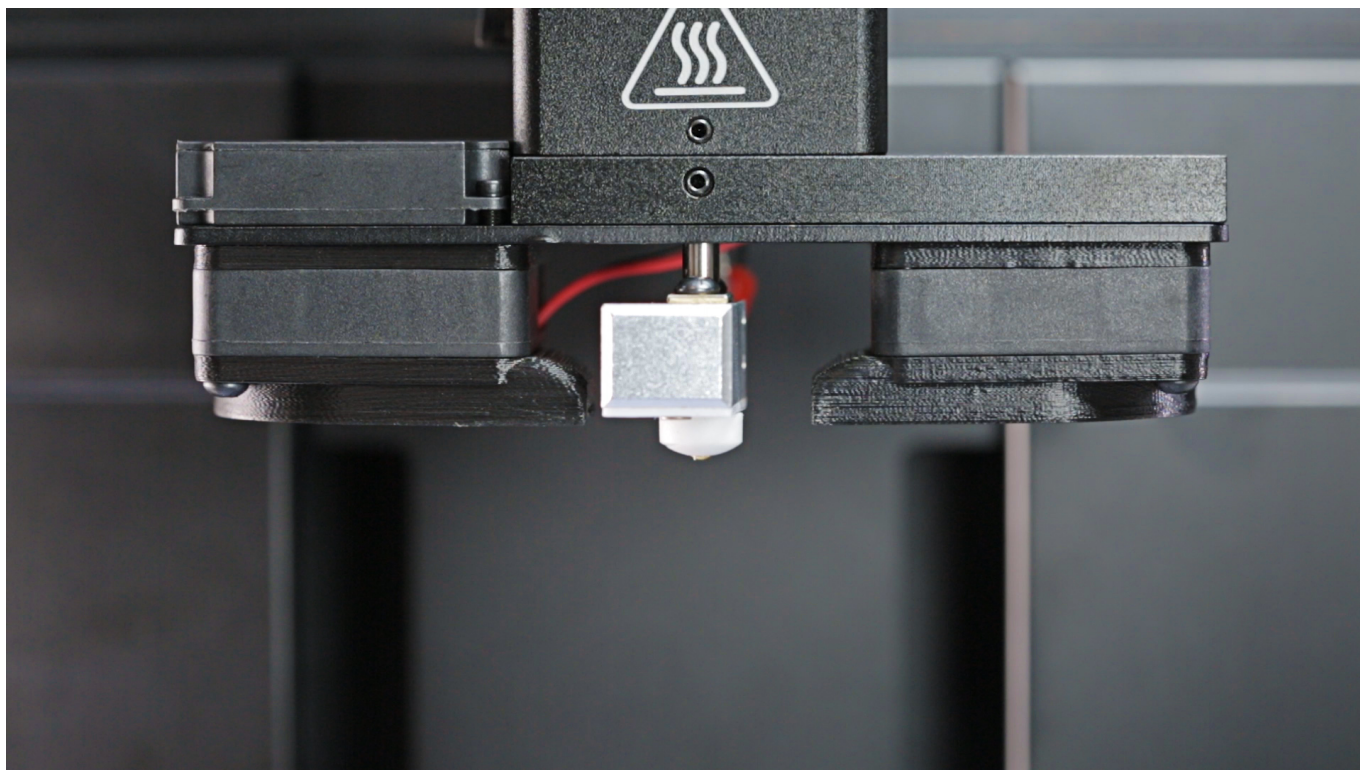
Detach the extruder upper cover from the extruder.

## Unplugging the Extruder Cable



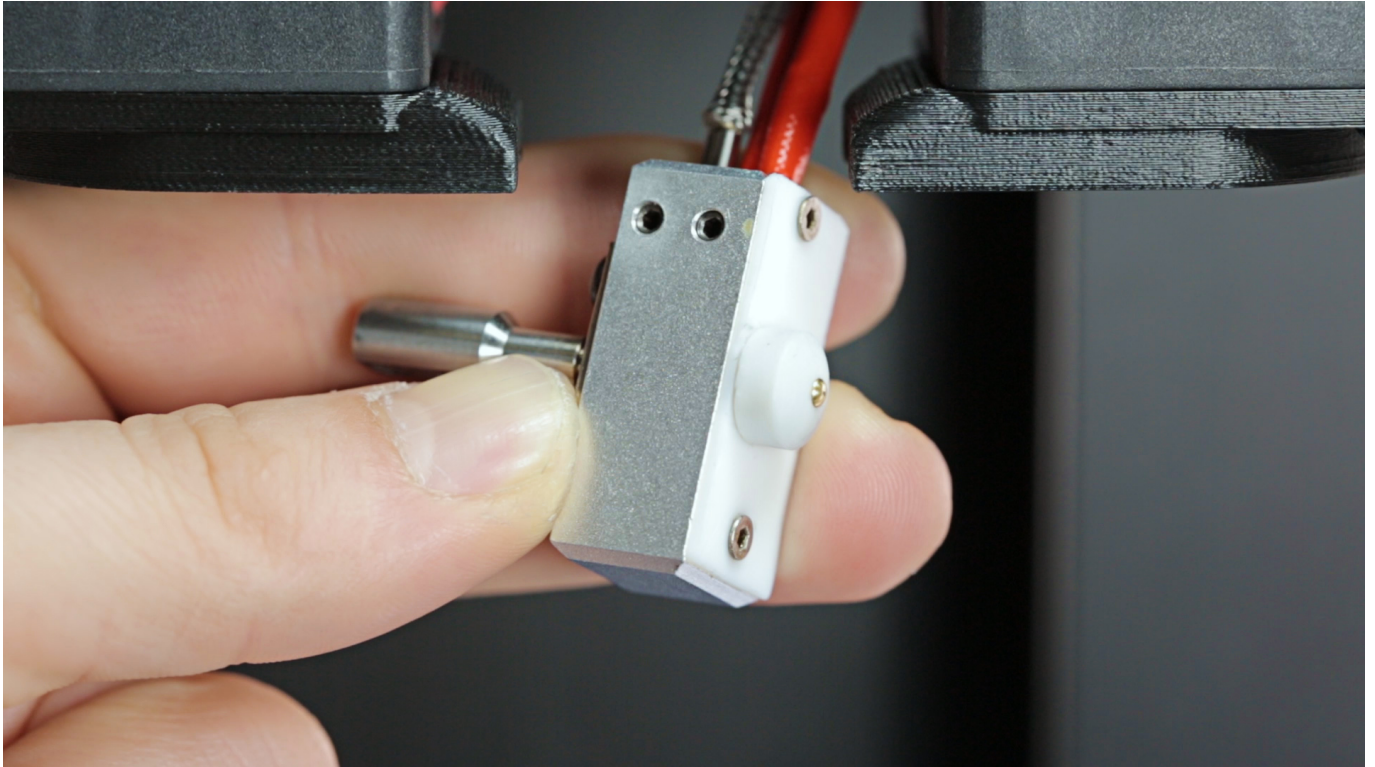
Detach the material guide and unplug the extruder cable.

## Hotend Removal



With a 1.5mm Allen key loosen the two screws that secure the hotend and remove the hotend from the extruder.

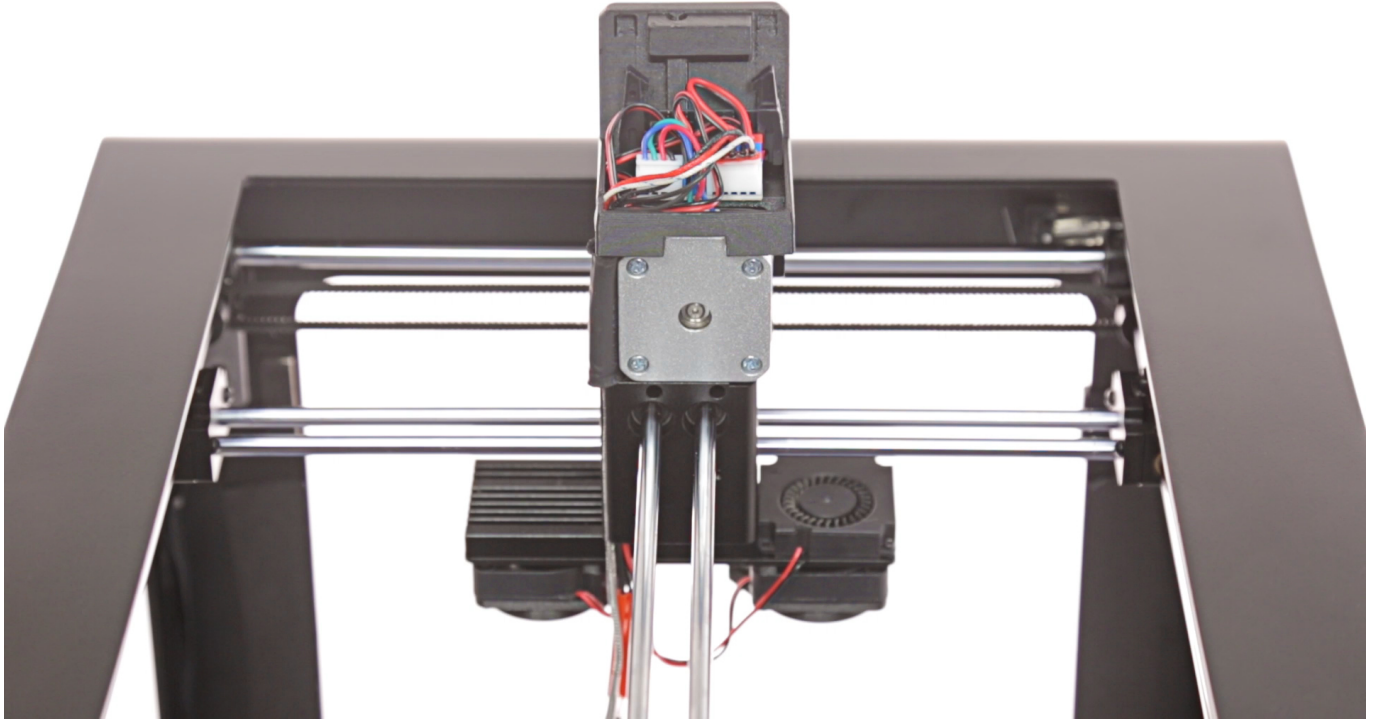
## Heater and Thermocouple Removal



With a 1.5mm Allen key loosen the two screws that secure the heater and thermocouple in the hotend. Then remove both the heater and the thermocouple from the hotend.



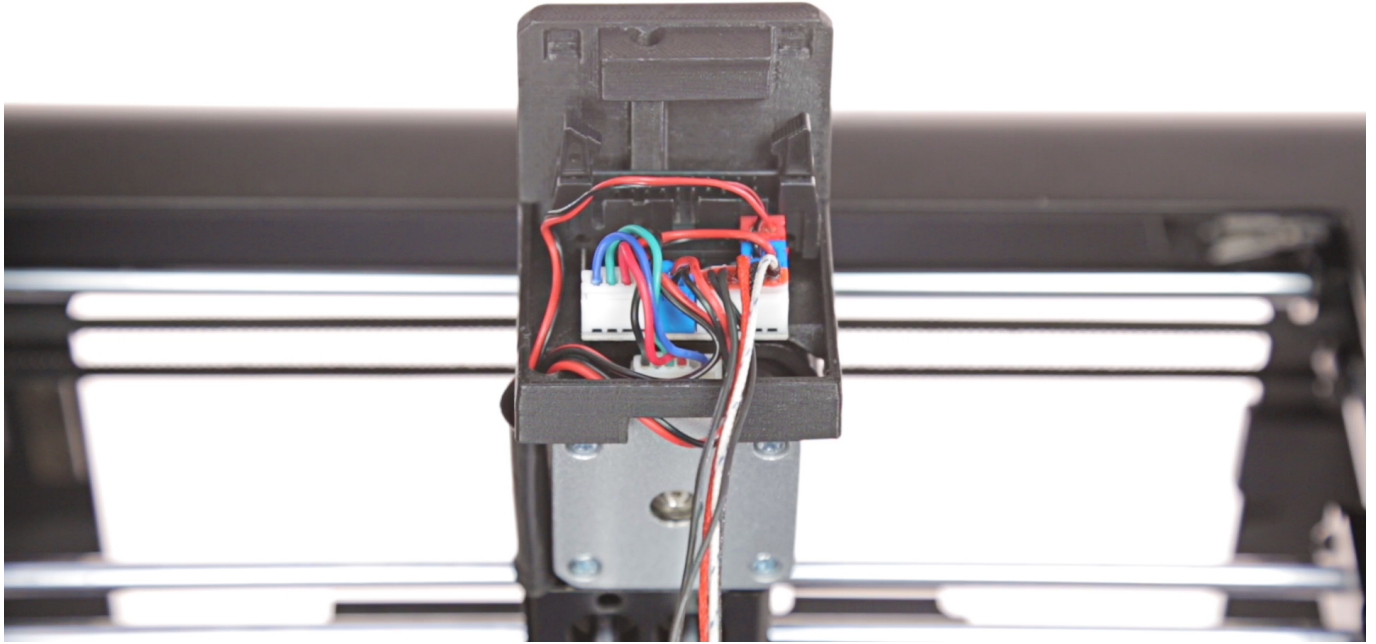
## Heater and Thermocouple Removal (from the Extruder)



Remove the heater and thermocouple from the extruder block and the heat shrink tubing.

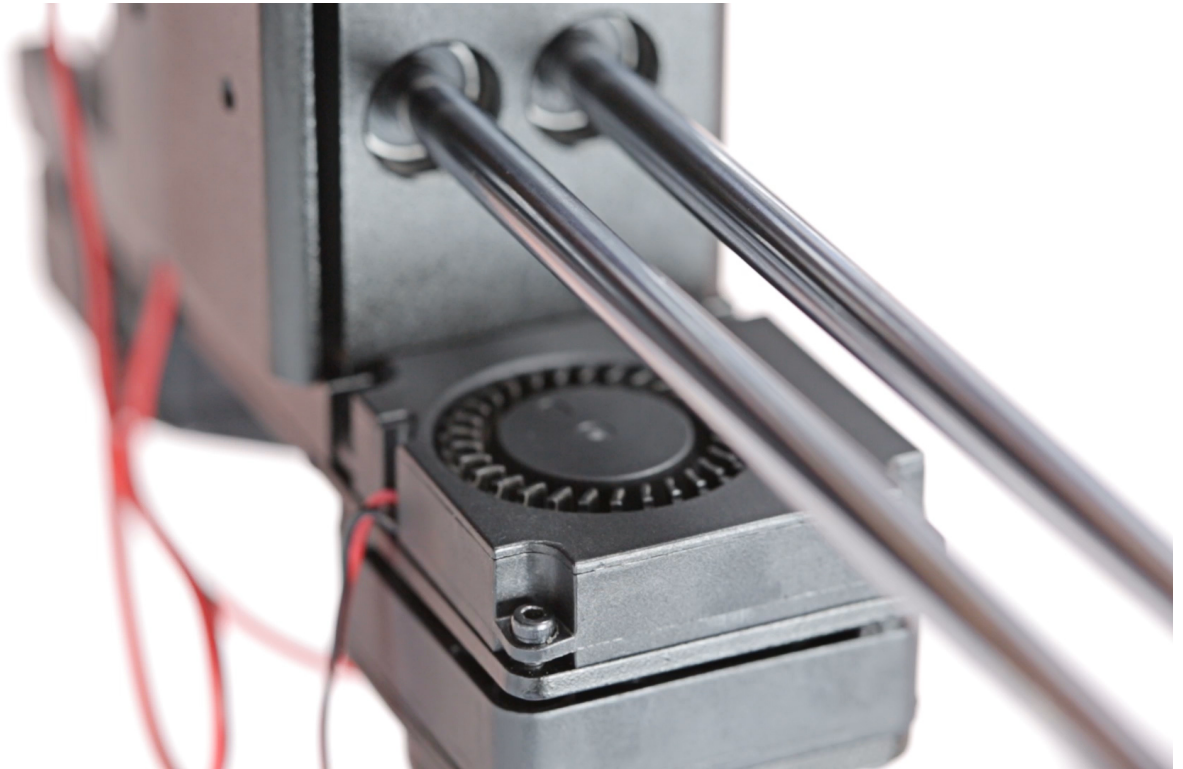
# Extruder Upper Fan Replacement

## UNPLUGGING THE EXTRUDER UPPER FAN CABLE



Unplug the red connector from the extruder PCB. Remove the cable from the heat shrink tubing.

## UNSCREWING THE EXTRUDER UPPER FAN



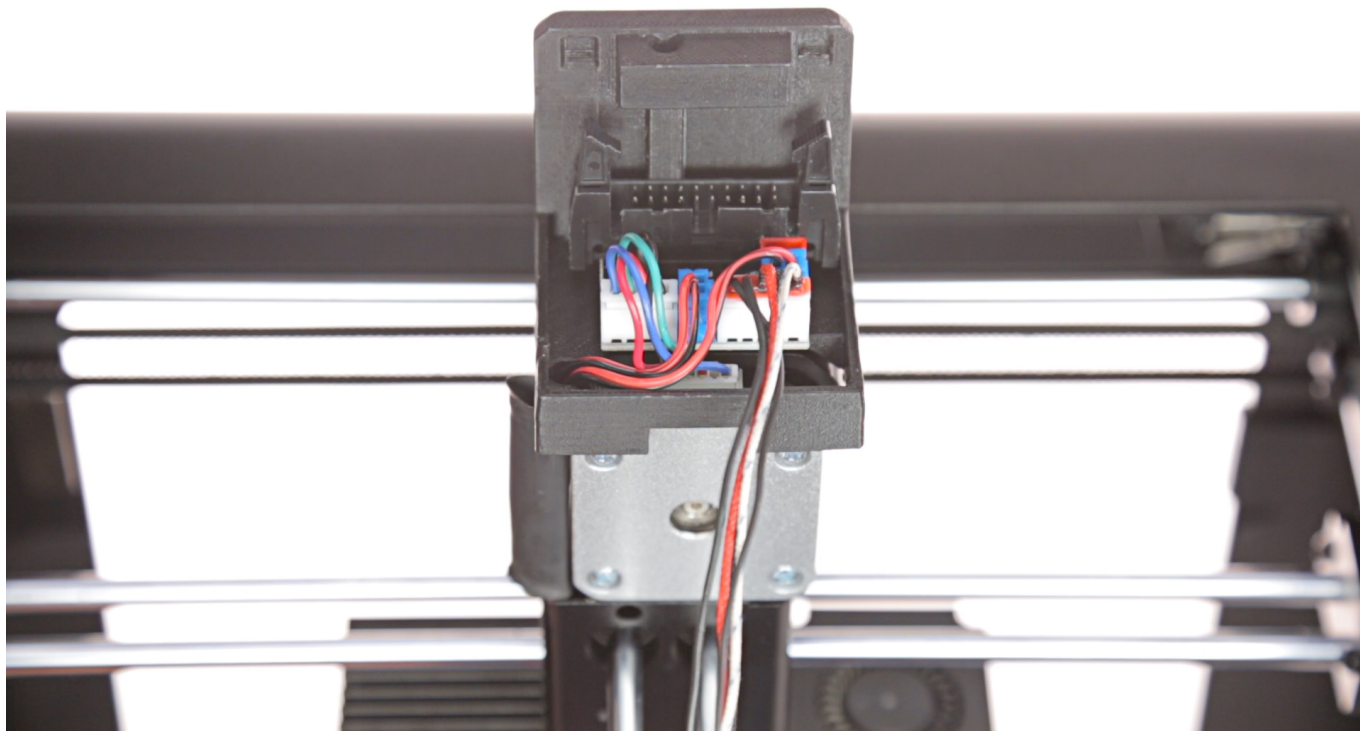
Unscrew the two screws that secure the extruder upper fan. Remove the fan.

#### **EXTRUDER UPPER FAN ASSEMBLY, PART 1**



Place the extruder upper fan on the heat sink next to the extruder aluminum block. Secure the fan with the two screws.

## **EXTRUDER UPPER FAN ASSEMBLY, PART 2**



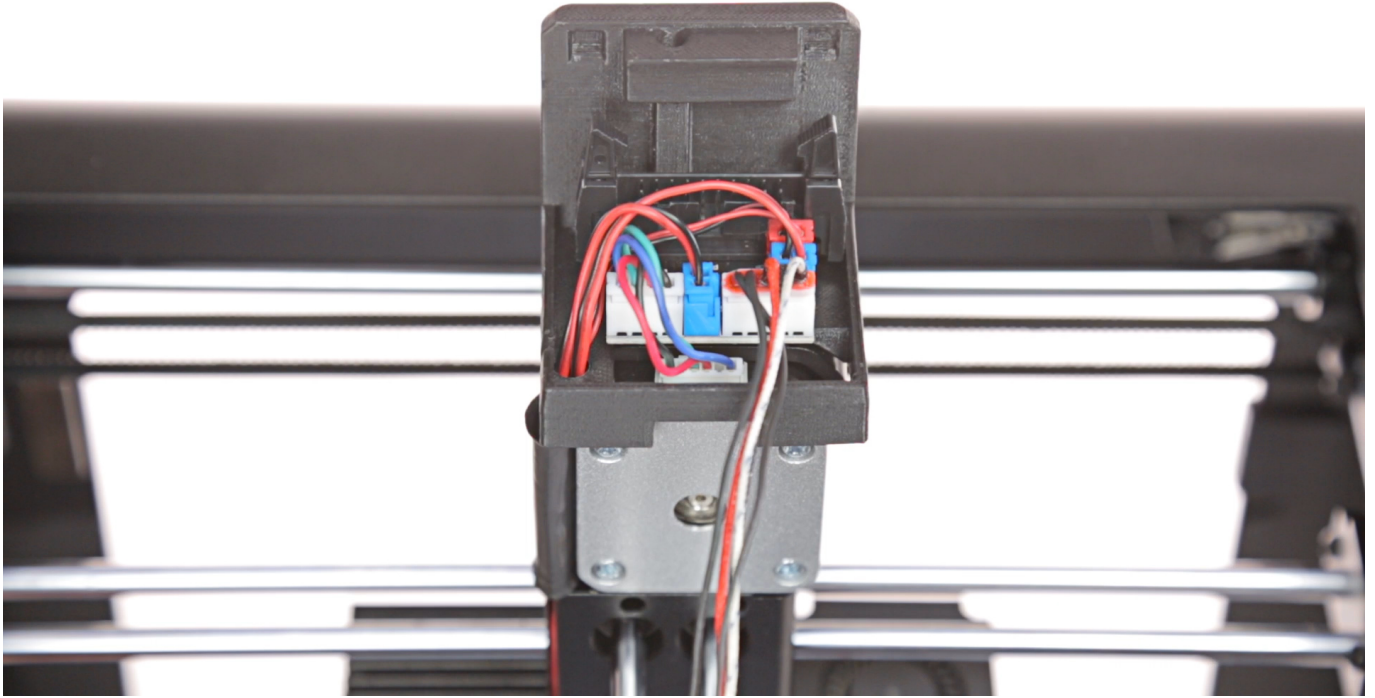
Pass the extruder upper fan cable through the heat shrink tubing and plug in its connector.

CAREFULLY PUT THE CABLE IN THE GAP IN THE EXTRUDER ALUMINUM BLOCK. BE CAREFUL NOT TO DAMAGE THE CABLE.



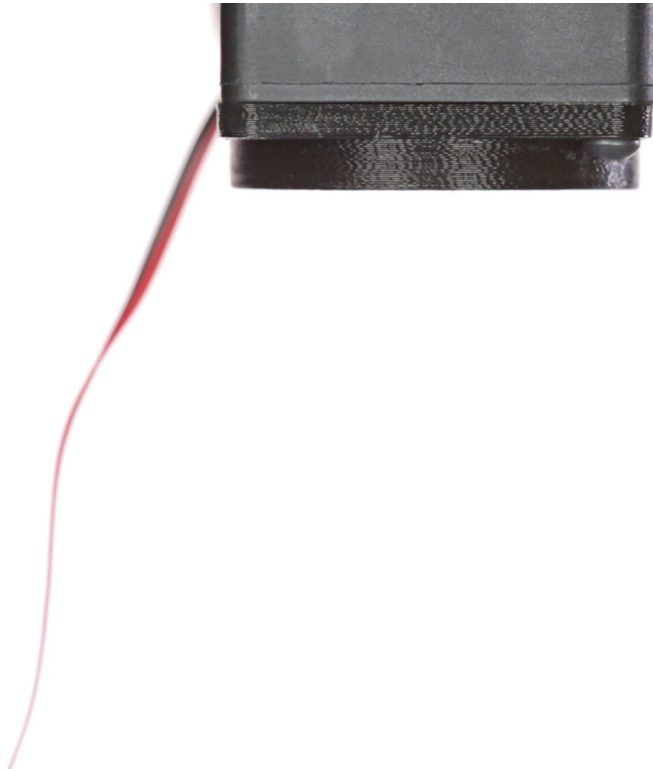
# Extruder Lower Fan 1 Replacement

## UNPLUGGING THE EXTRUDER LOWER FAN CABLE



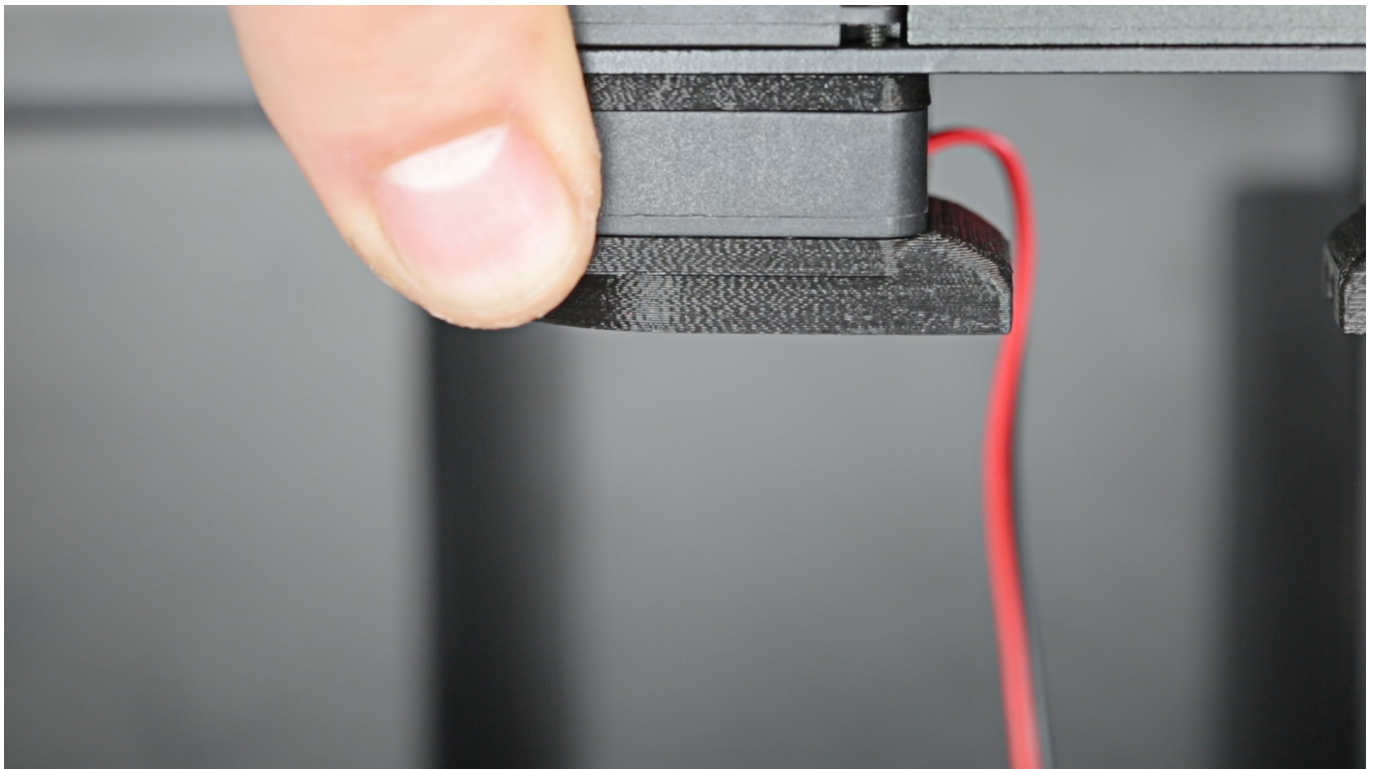
Unplug the blue connector from the extruder PCB. Remove the cable from the heat shrink tubing.

## UNSCREWING THE EXTRUDER LOWER FAN



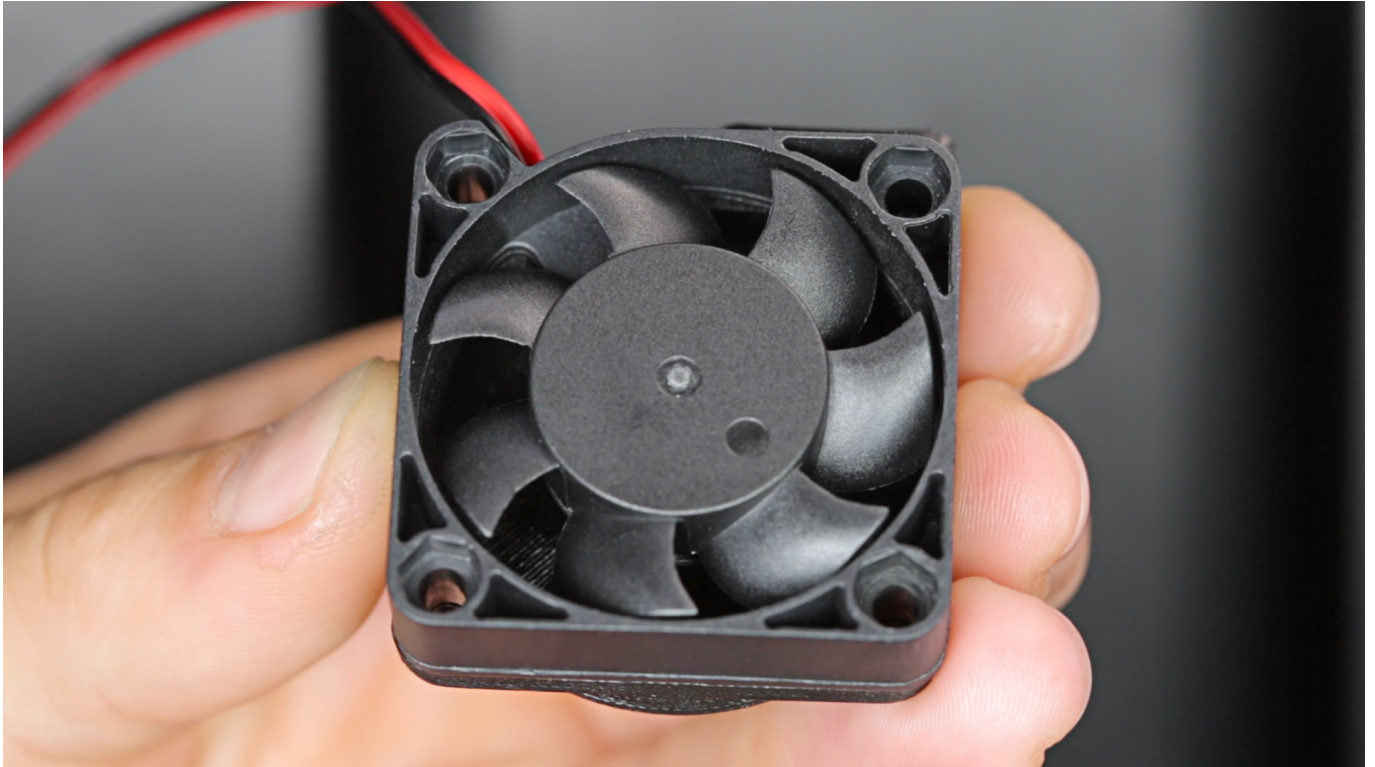
Unscrew the two screws that secure the extruder lower fan.

## **EXTRUDER LOWER FAN REMOVAL, PART 1**



Separate the extruder lower fan from the heat sink and remove the distance piece.

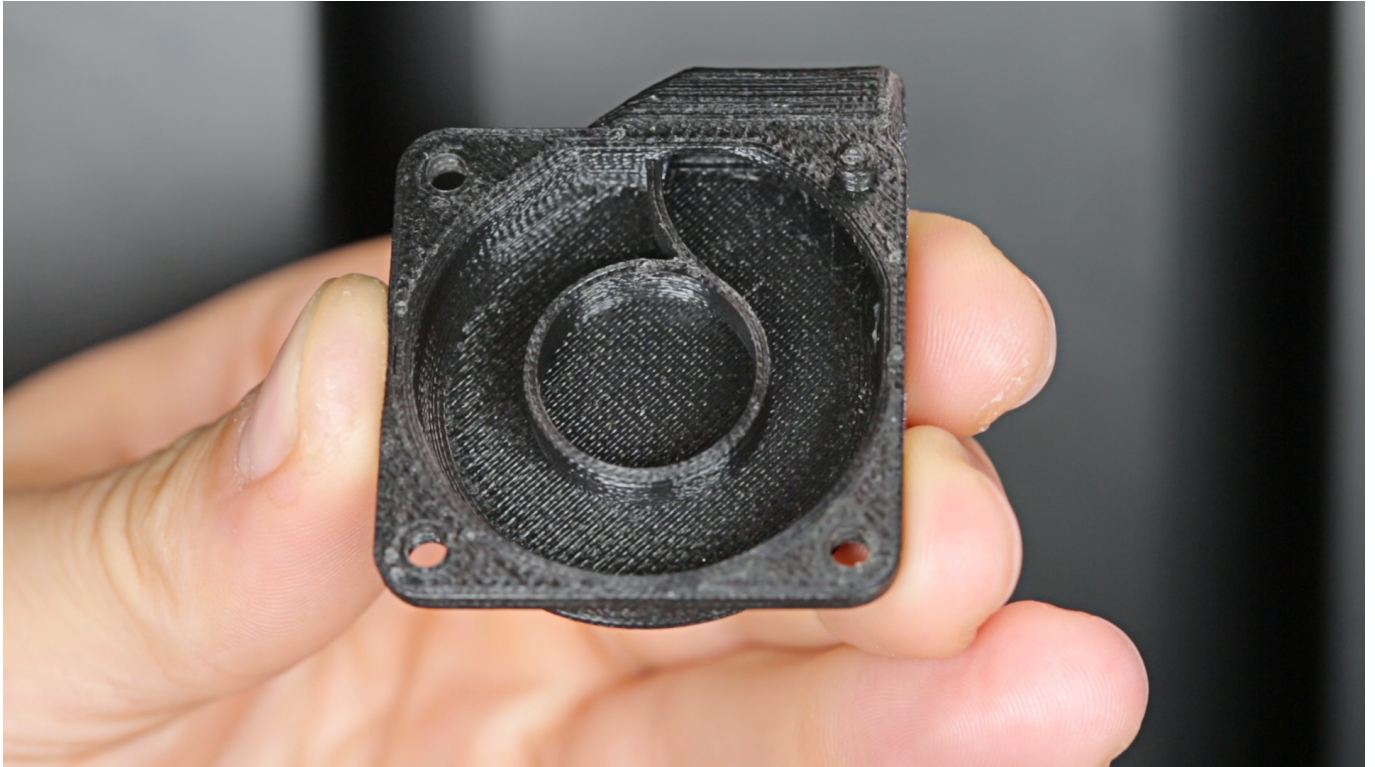
## **EXTRUDER LOWER FAN REMOVAL, PART 2**



Separate the extruder lower fan from the fan shroud.

## **EXTRUDER LOWER FAN ASSEMBLY, PART 1**





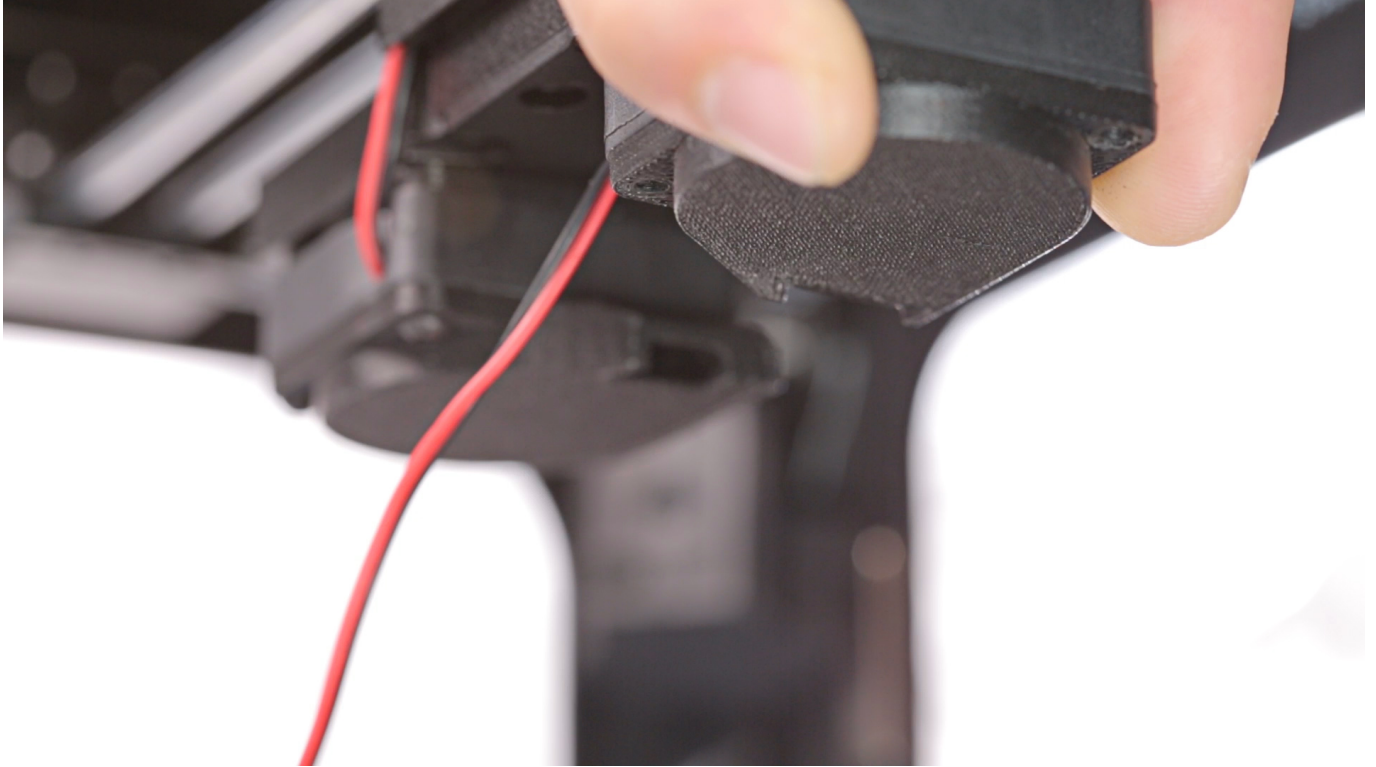
Put the fan shroud together with the new extruder lower fan.

## **EXTRUDER LOWER FAN ASSEMBLY, PART 2**



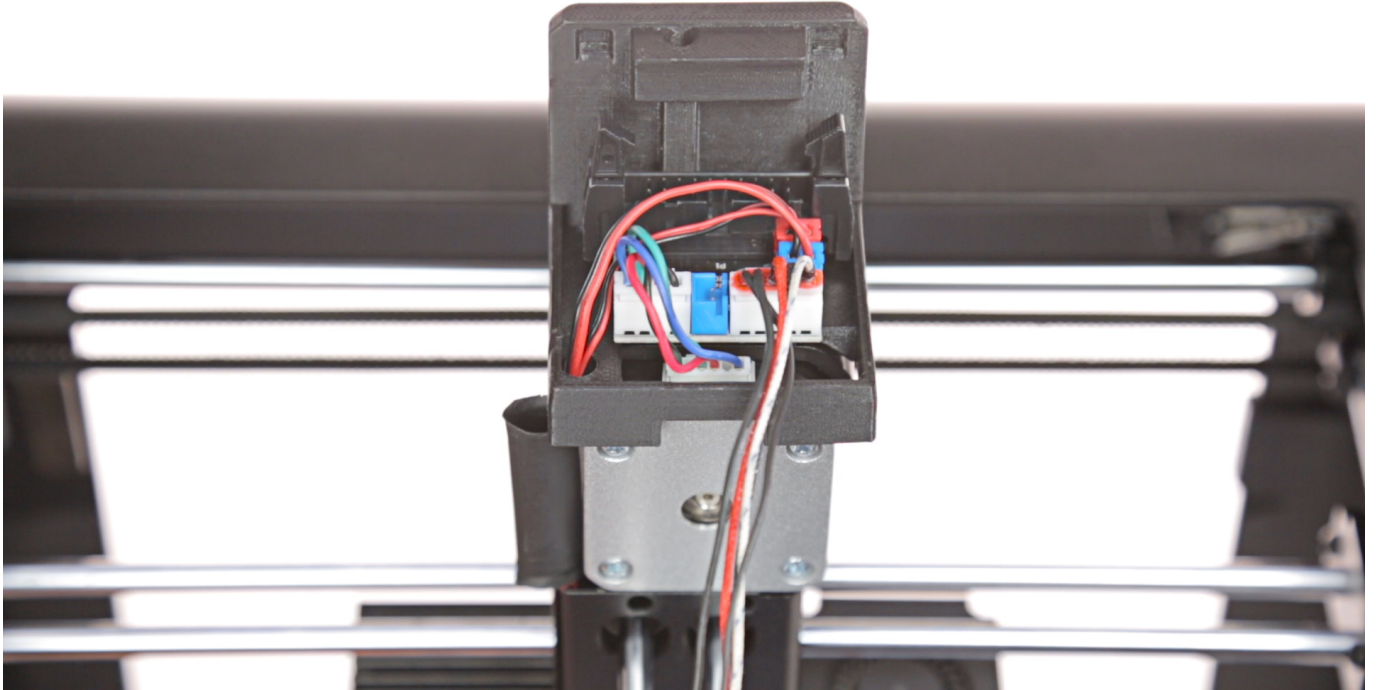
Place the distance piece on the extruder lower fan. Install the fan under the heat sink.

### **SECURING THE EXTRUDER LOWER FAN**



Secure the extruder lower fan with the two screws.

### **PLUGGING IN THE EXTRUDER LOWER FAN CABLE**

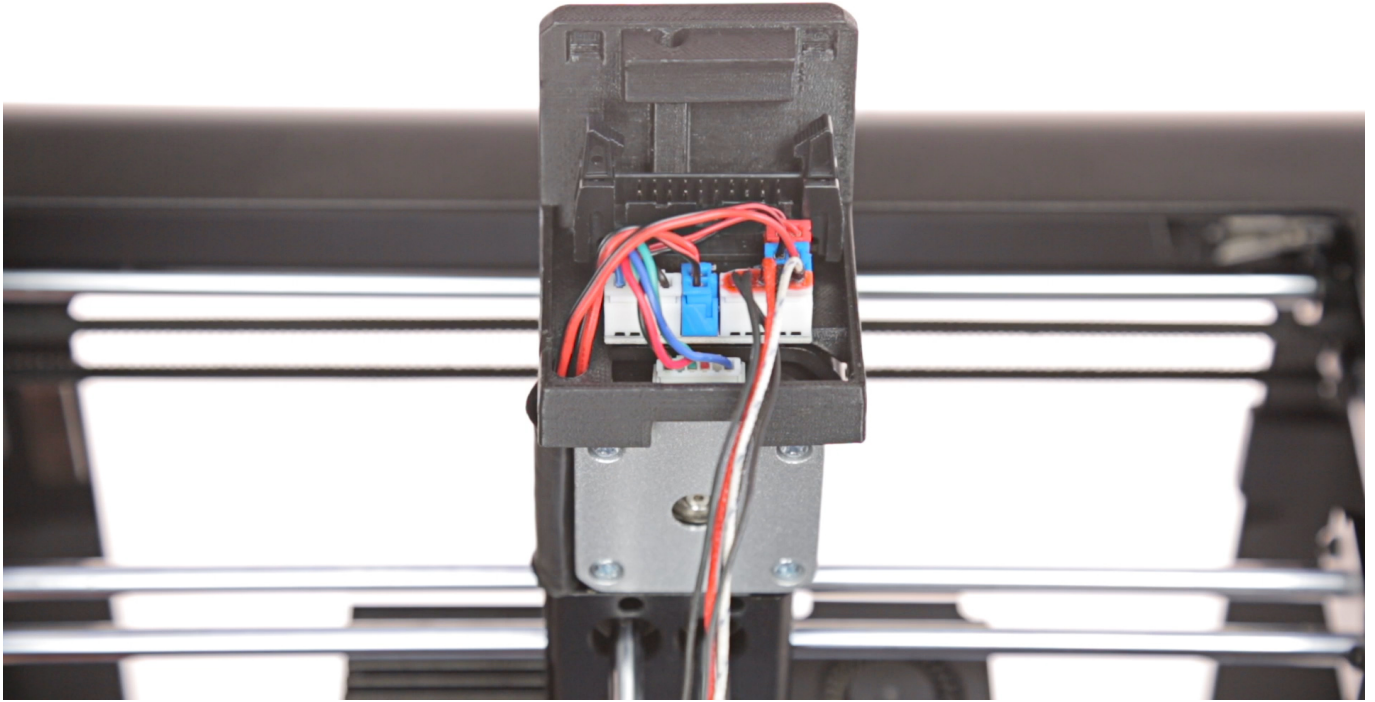


Put the extruder lower fan cable through the heat shrink tubing and plug it in.



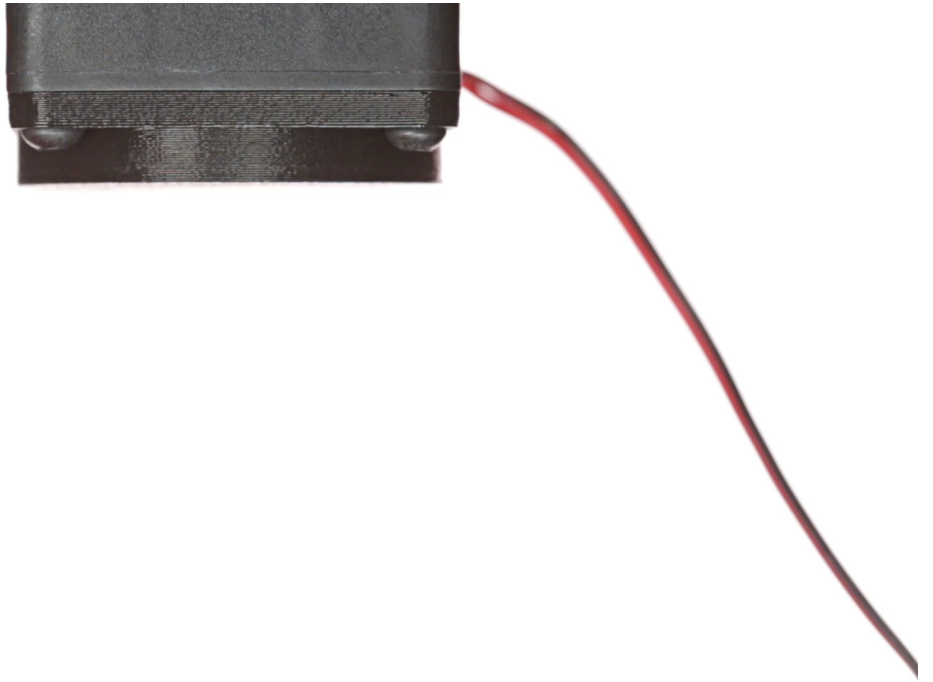
# Extruder Lower Fan 2 Replacement

## UNPLUGGING THE EXTRUDER LOWER FAN CABLE



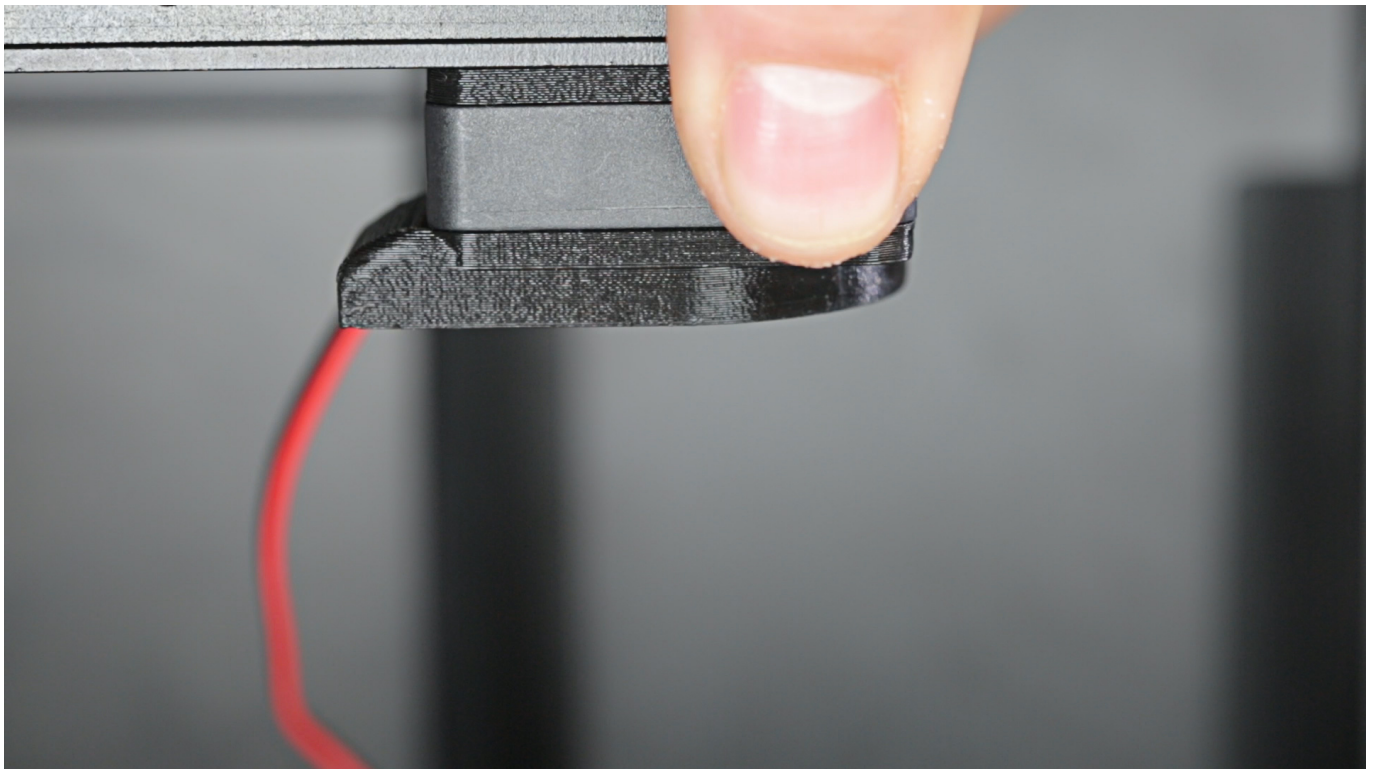
Unplug the other blue connector from the extruder PCB. Remove the cable from the heat shrink tubing.

## UNSCREWING THE EXTRUDER LOWER FAN



Unscrew the three screws that secure the extruder lower fan.

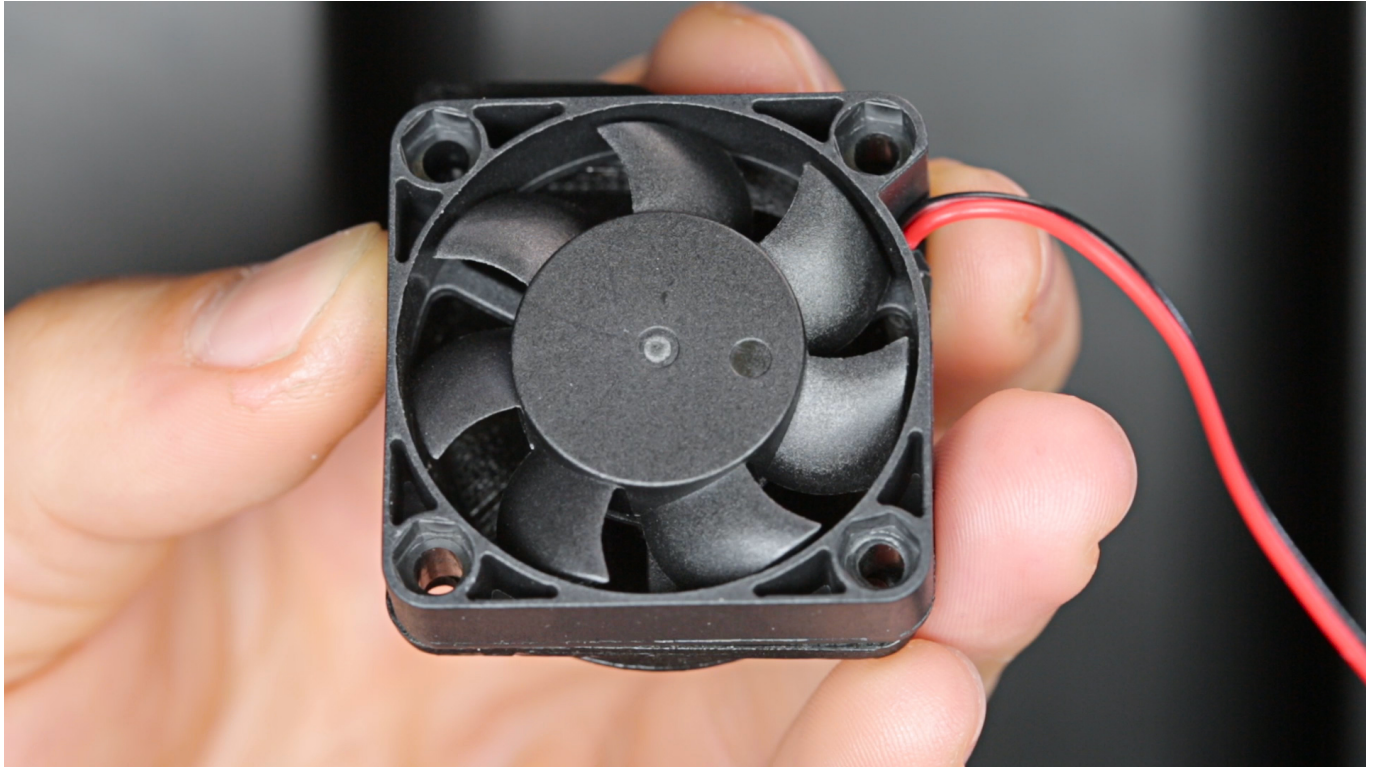
### **EXTRUDER LOWER FAN REMOVAL, PART 1**





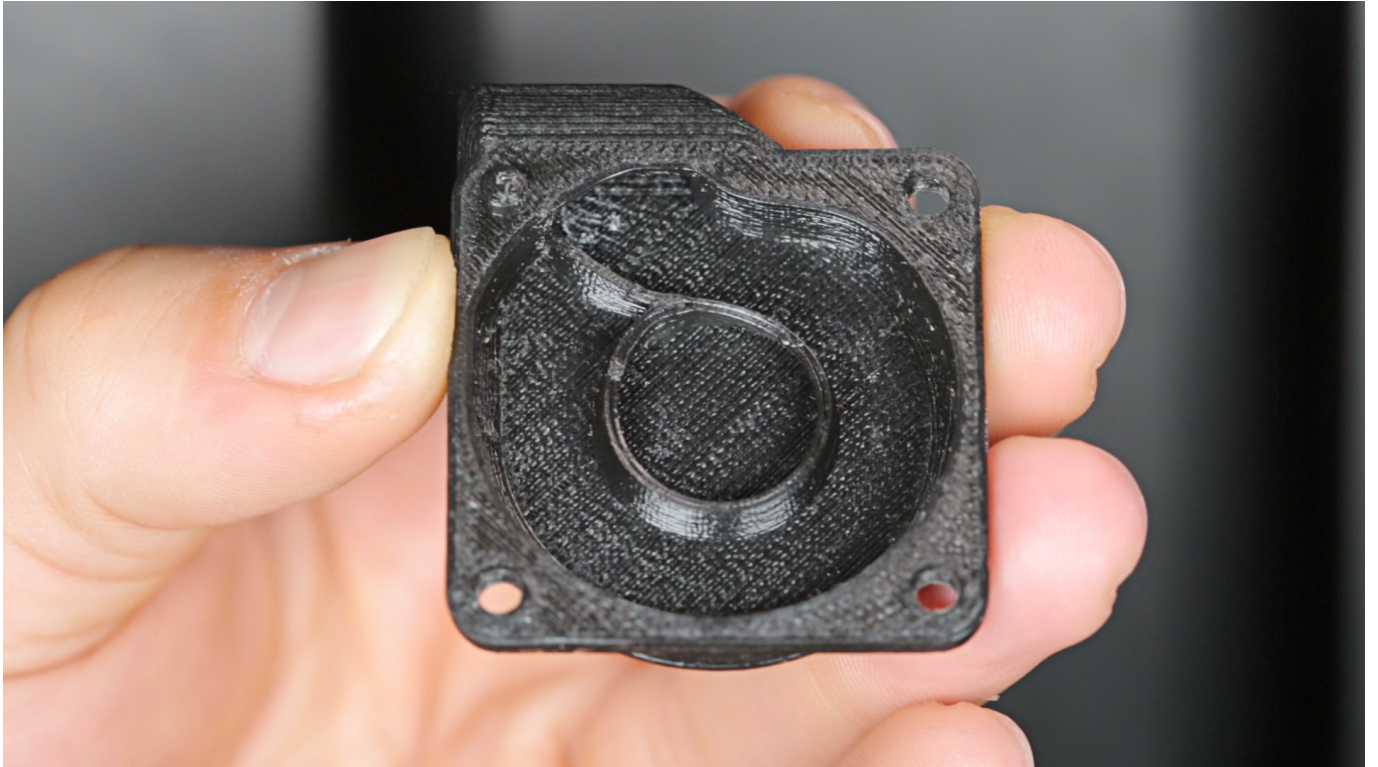
Separate the extruder lower fan from the heat sink and remove the distance piece.

## **EXTRUDER LOWER FAN REMOVAL, PART 2**



Separate the extruder lower fan from the fan shroud.

## **EXTRUDER LOWER FAN ASSEMBLY, PART 1**



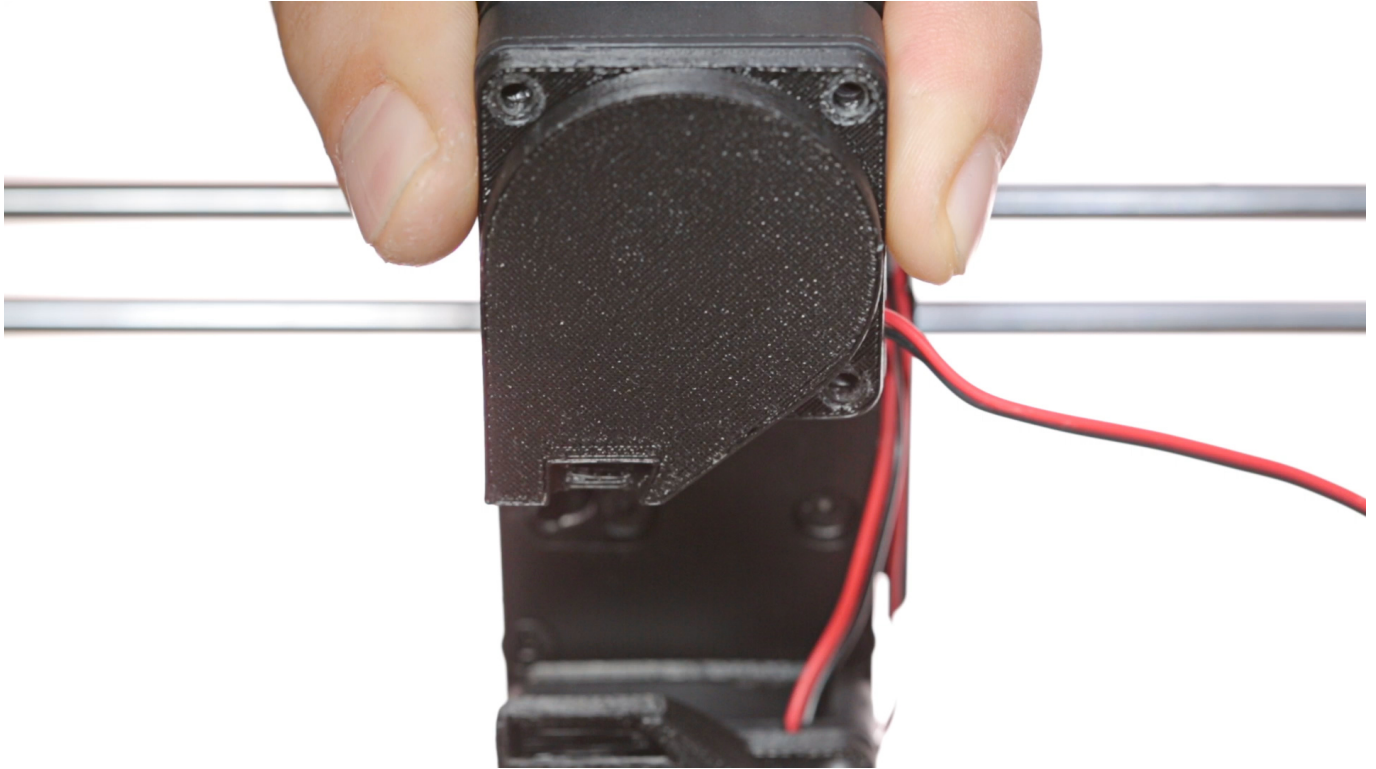
Put the fan shroud together with the new extruder lower fan.

## **EXTRUDER LOWER FAN ASSEMBLY, PART 2**



Place the distance piece on the extruder lower fan. Install the fan under the heat sink.

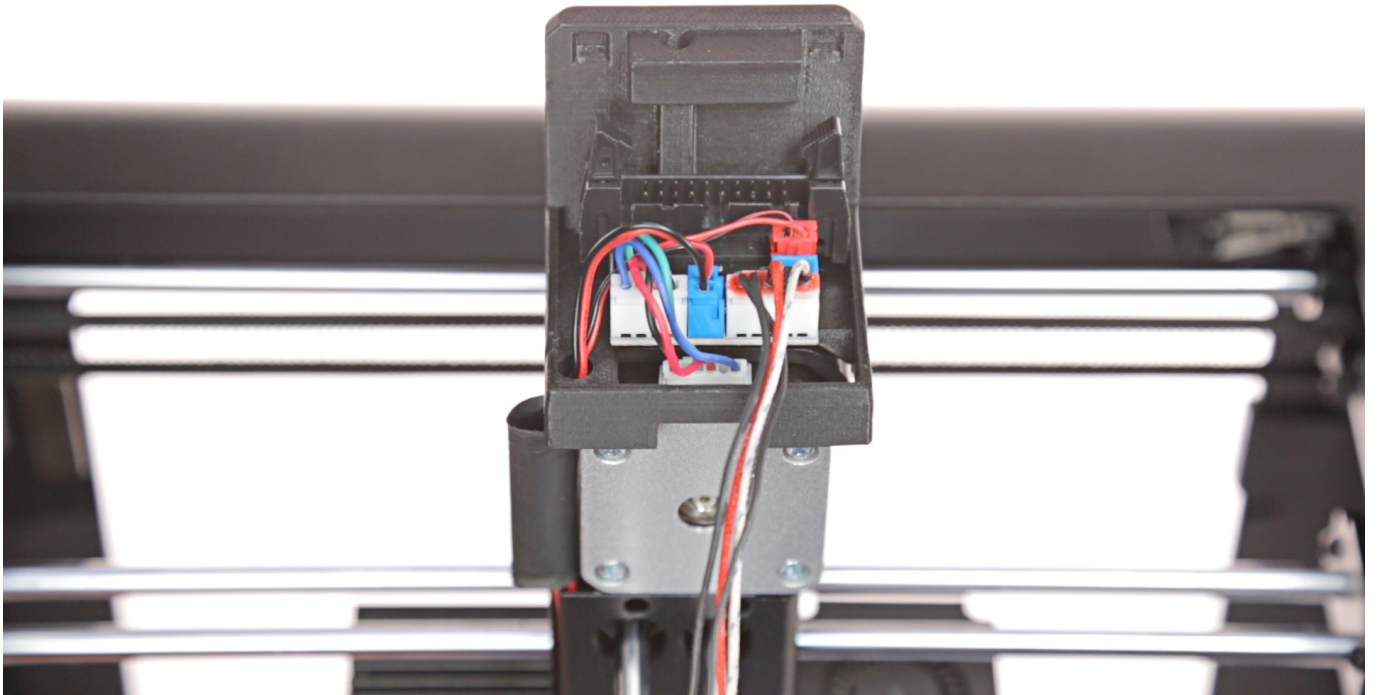
## **SECURING THE EXTRUDER LOWER FAN**



Secure the extruder lower fan with the three screws.

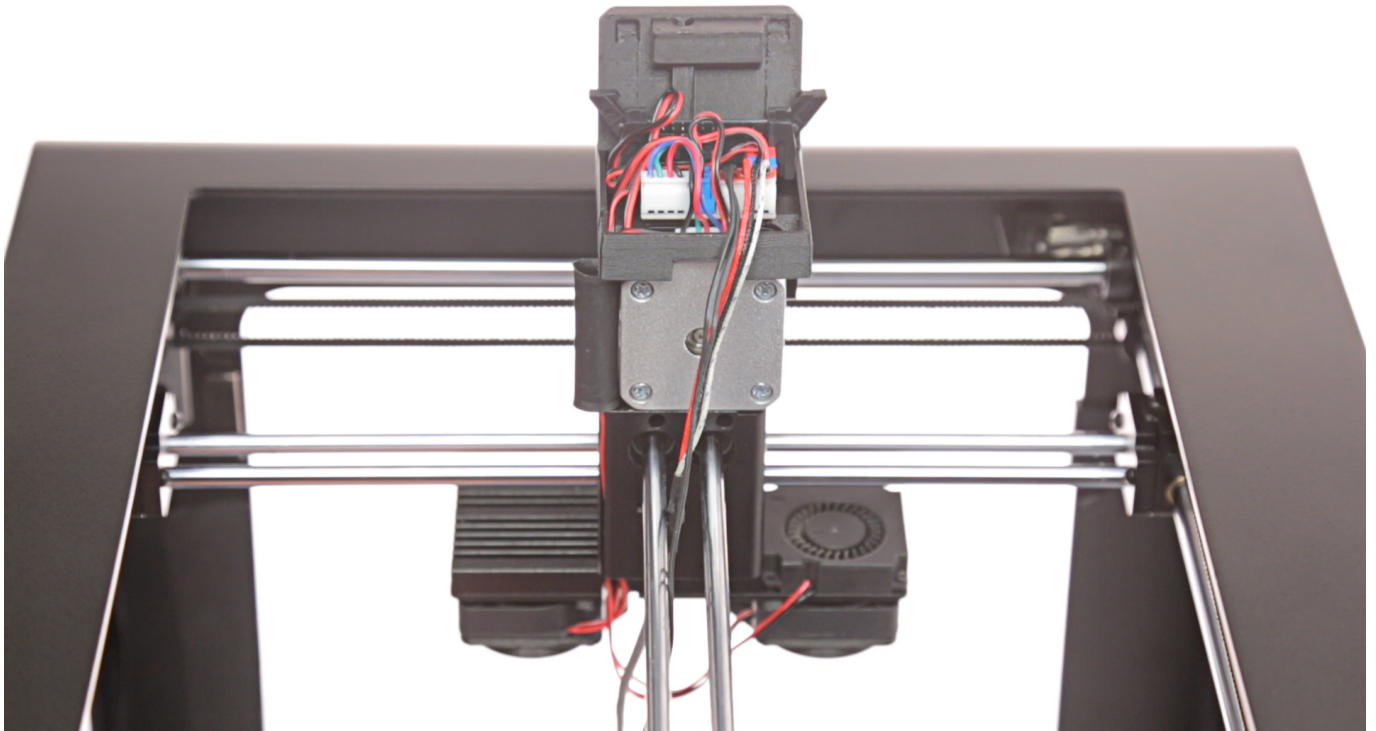
## **PLUGGING IN THE EXTRUDER LOWER FAN CABLE**





Put the extruder lower fan cable through the heat shrink tubing and plug it in.

## Heater and Thermocouple Assembly



Put the heater and thermocouple cables through the heat shrink tubing.

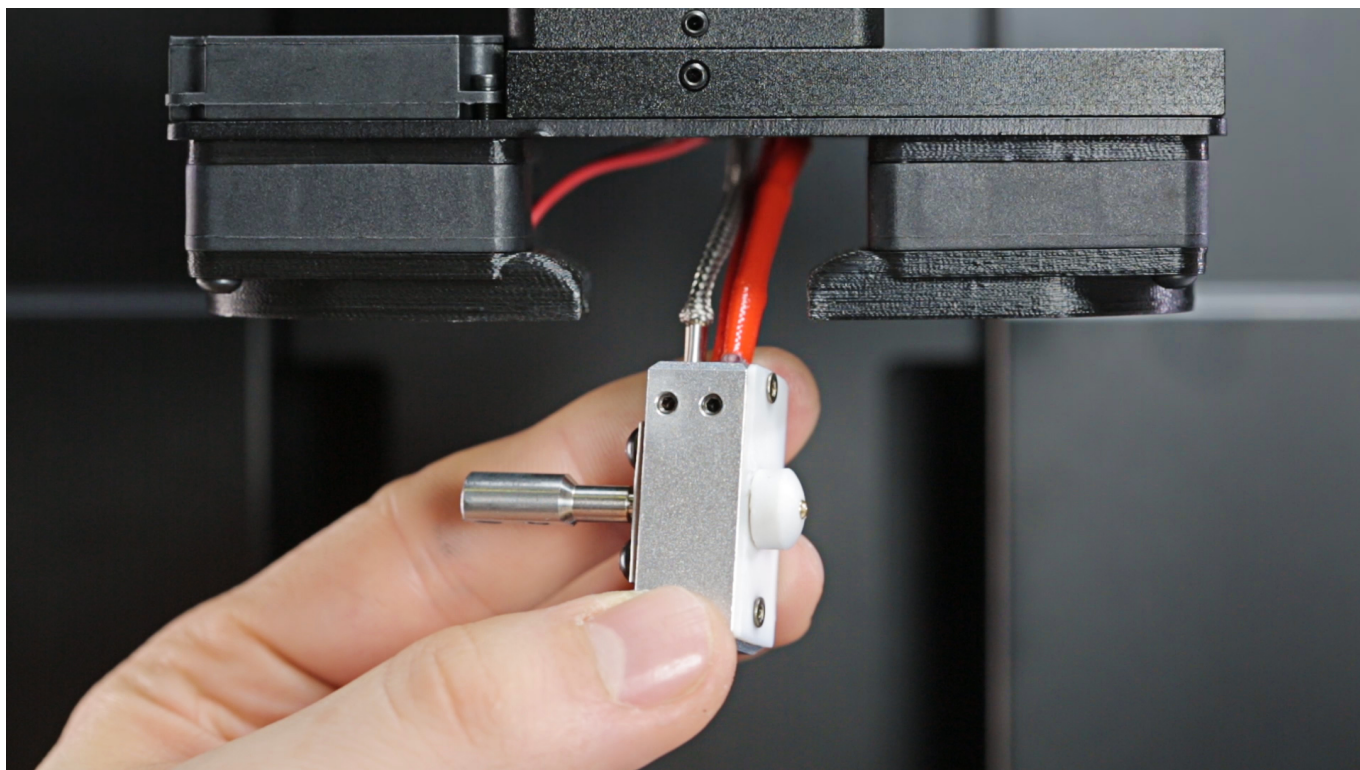
CAREFULLY PUT THE CABLES IN THE GAP IN THE EXTRUDER ALUMINUM BLOCK. BE CAREFUL NOT TO DAMAGE THE CABLE.

## Heater and Thermocouple Assembly (in the Hotend)



Insert the heater and thermocouple into the hotend and firmly tighten the two screws (using a 1.5mm Allen key).

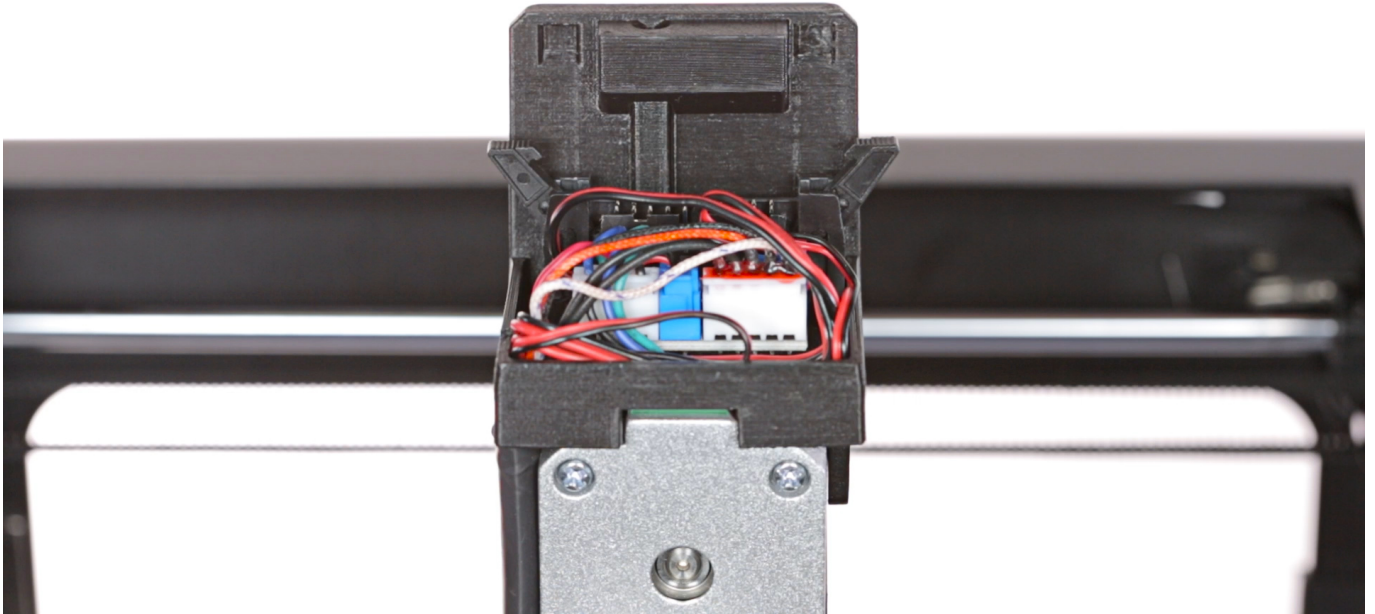
## Hotend Assembly



Insert the hotend into the extruder and tighten the two screws that secure it (using a 1.5mm Allen key).



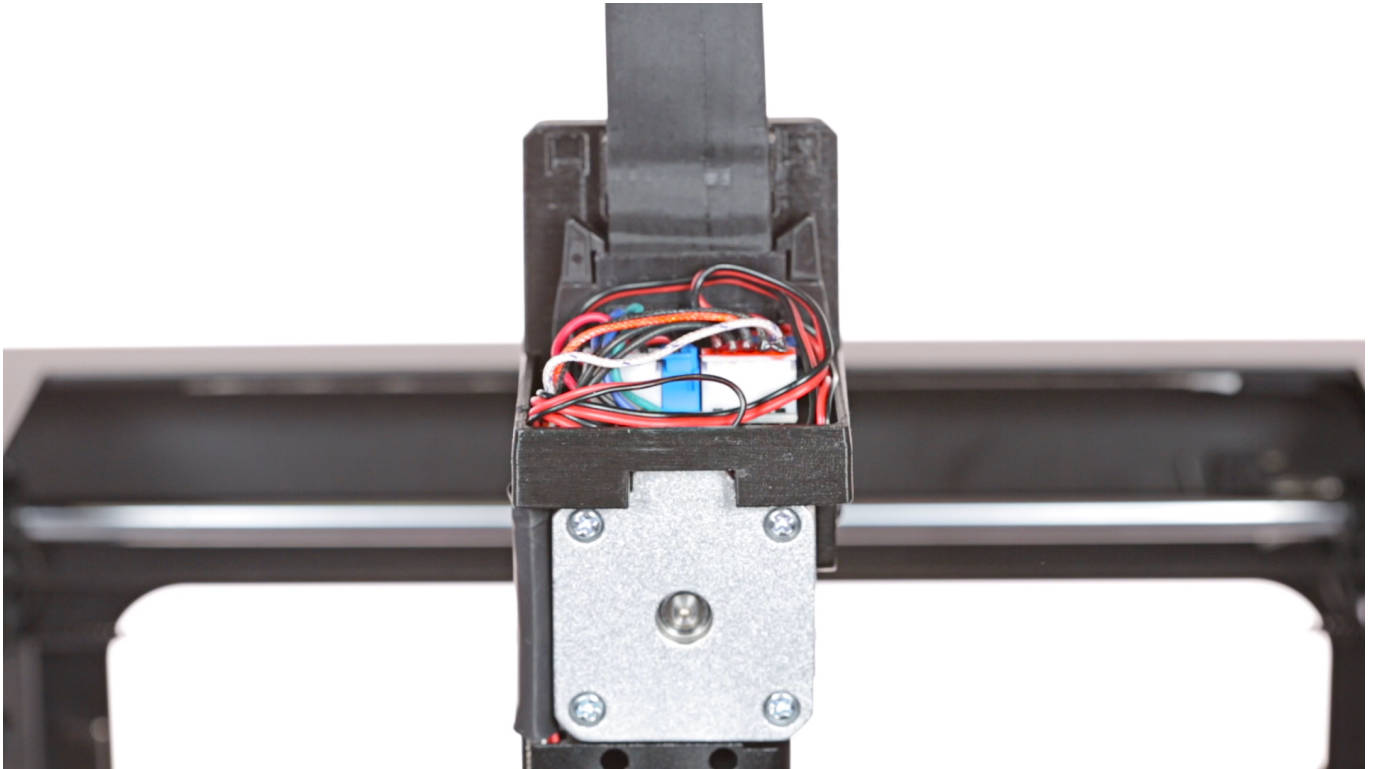
## Plugging the Extruder Cable



Plug in the extruder cable and attach the material guide to the extruder top cover.



## Extruder Upper Cover Assembly



Attach the extruder upper cover to the extruder.