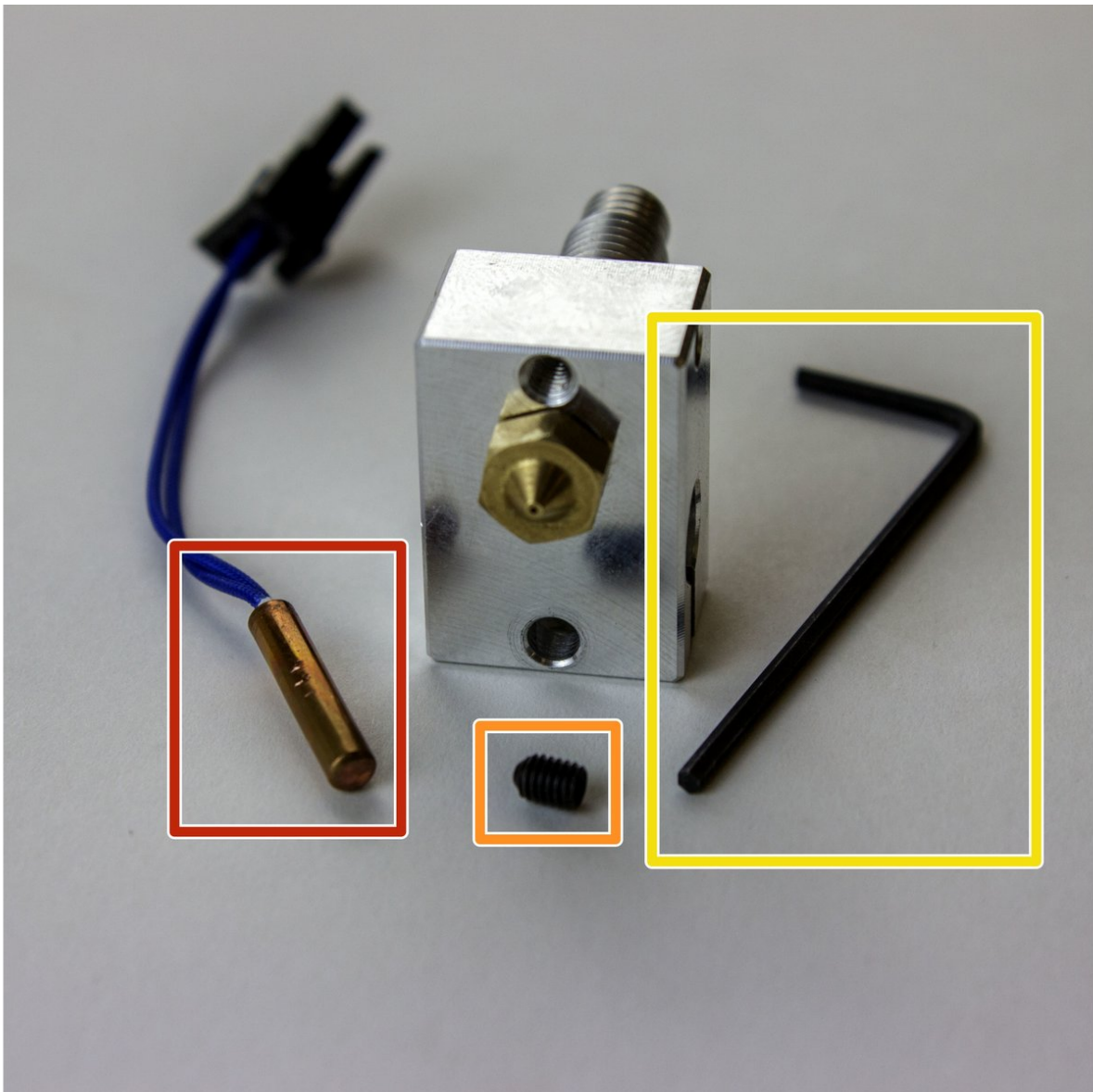




# V6 Electronics Assembly

Guide to assembling the thermistor and heater cartridges.

Written By: Gabe S.



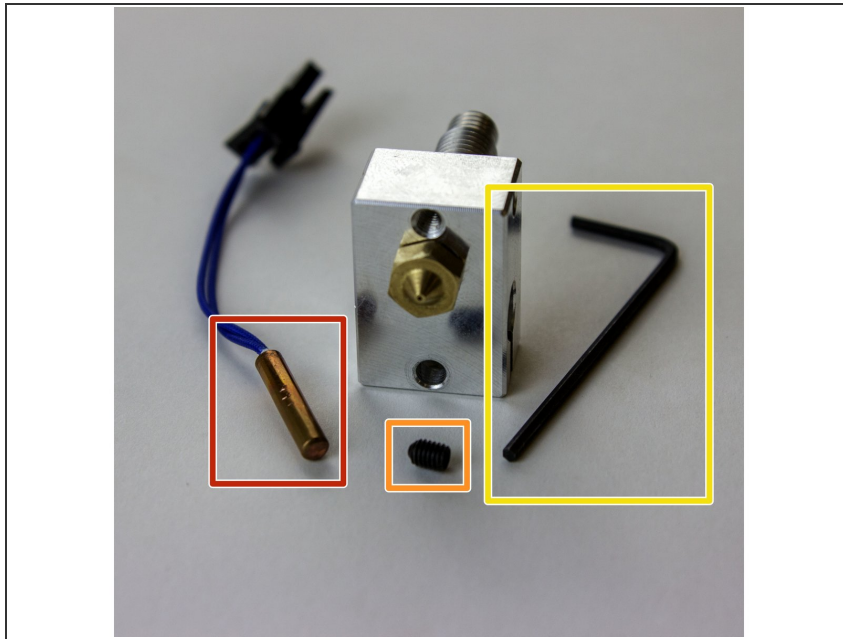
 **TOOLS:**

- Hex Wrench, 2.5mm (1)
- Hex Wrench, 1.5mm (1)

 **PARTS:**

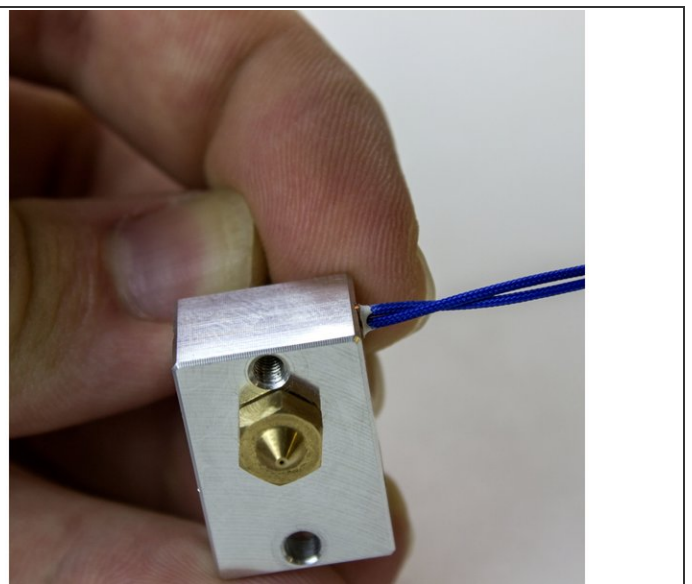
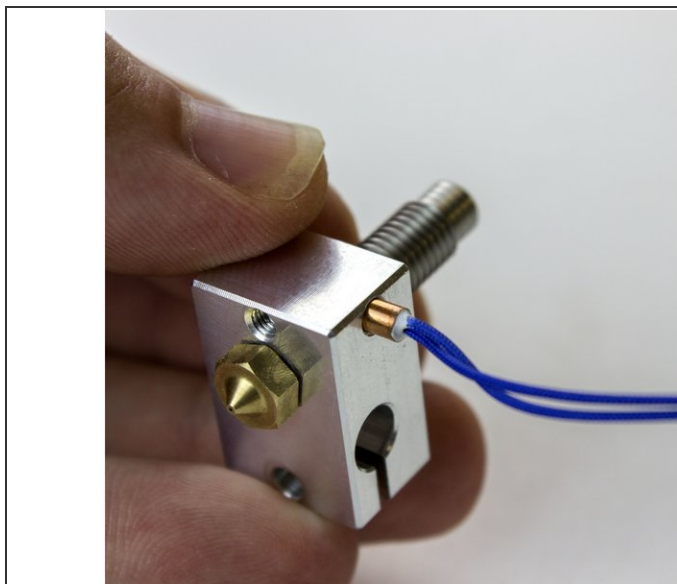
- Thermistor Cartridge (1)
- Heater Cartridge (1)
- M3 Grub Screw (1)
- M3 Washer (1)
- M3x10 Socket Dome Screw (1)
- Extension Wires (1)

## Step 1 — Gather Thermistor Parts



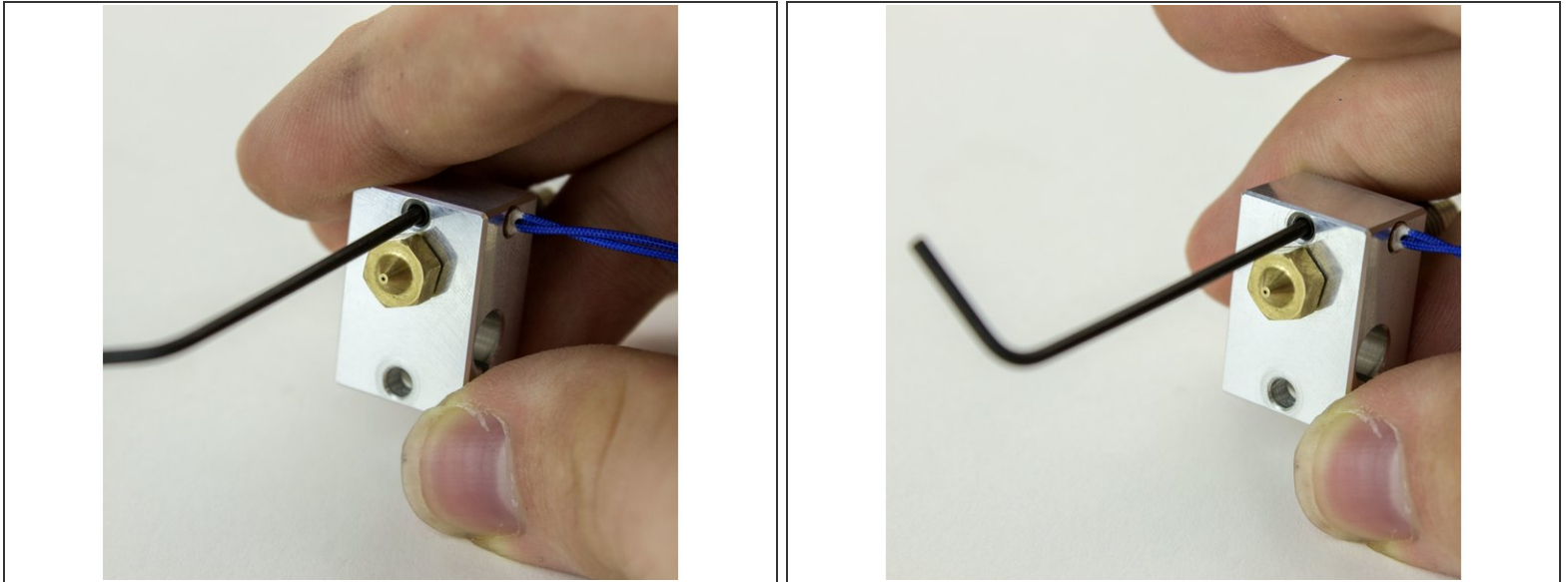
- Gather the parts you'll need to install the thermistor:
  - Thermistor Cartridge
  - The Smaller, 1.5mm Hex Wrench
  - M3 Grub Screw
  - Heater Block

## Step 2 — Slide in Thermistor




- Slide in the thermistor cartridge.
- You can slide the cartridge in either direction so that the wires extend from one side or the other of your heater block. Think about how you'll be organising your wiring to decide which makes sense for your printer.

### Step 3 — Screw in Grub Screw



- Screw in grub screw until it just touches the thermistor.
- Tighten M3 grub screw by an 1/8 of a turn.

 Do not over tighten the screw. The thermistor cartridge is soft, and you might deform it if you over-tighten the screw.

## Step 4 — Test Heater Cartridge

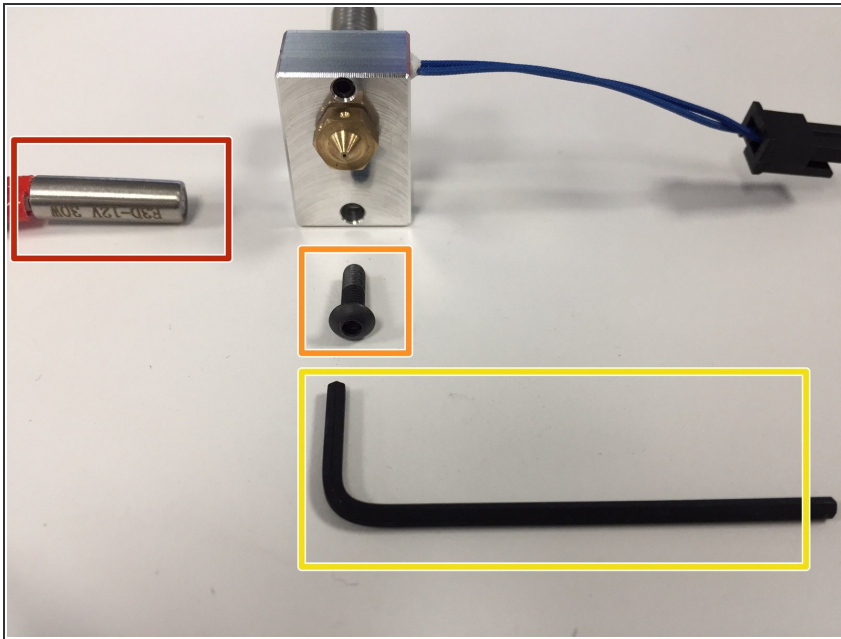
This is within acceptable bounds  
for a 12v heater cartridge



- Before you install your heater cartridge, you should double check that you both purchased and received the correct voltage cartridge. *This process is less annoying than putting out a house fire.*
- Your heater cartridge will be either 30w or 40w, with blue and red wires receptively.
- If you have a 12v heater cartridge, your resistance reading will be (about) 3.5 or 4.8  $\Omega$  for 40w and 30w respectively.
- If you have a 24v heater cartridge, your resistance reading will be (about) 14.4 or 19.2  $\Omega$  for 40w and 30w respectively.

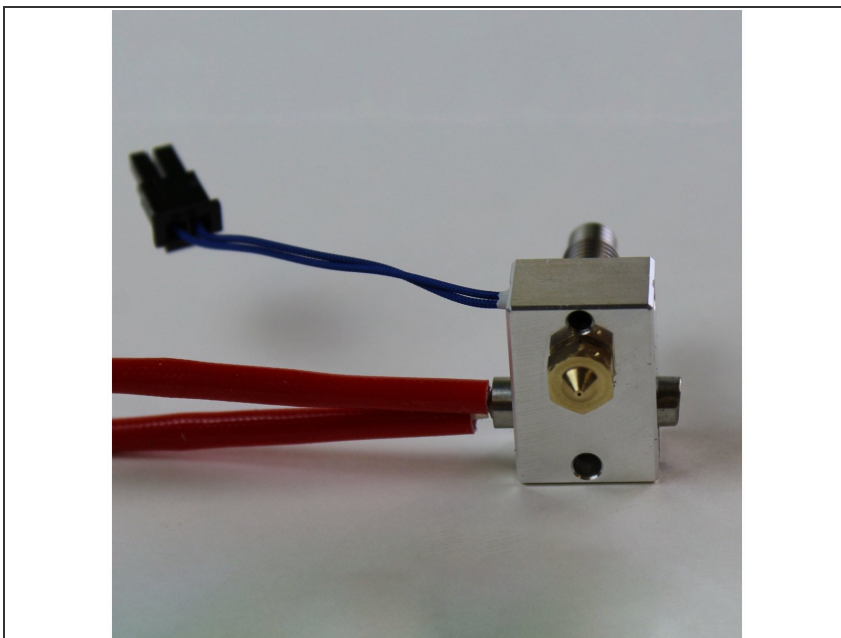


## Step 5 — Gather Heater Cartridge Parts



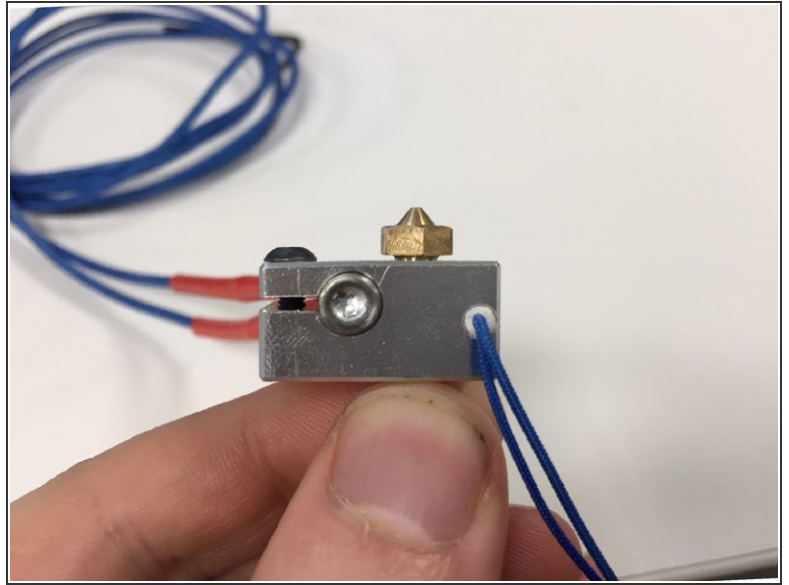
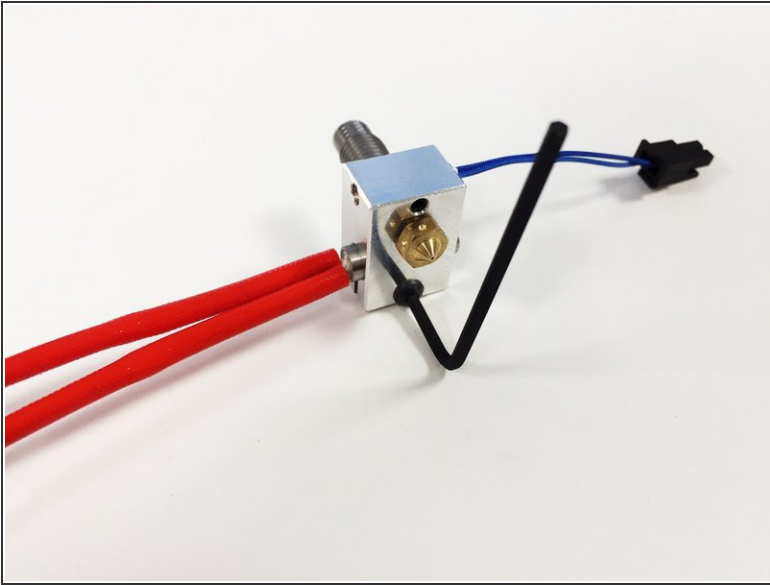
- Gather heater block, heater cartridge, 2mm hex key and M3x10 screw with washer:
  - Heater Block
  - Heater cartridge
  - 2.5mm, Hex Wrench
  - One of the longer M3x10.

## Step 6 — Slide in Heater Cartridge



- Slide in the heater cartridge. Typically you'd want the wires to come out the same side as your thermistor wires.

## Step 7 — Screw in M3x10 Screw



- Tighten the M3 x 10 socket dome screw with 2.5 mm hex key until the clamp deforms slightly (as shown in the second picture).
- Gently tug the heater and thermistor wires to check they won't slide out