gMax 2 E3D Hotend Installation

gCreate · May 20, 2021 · e3d hotend install guide

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May 20, 2021 #1

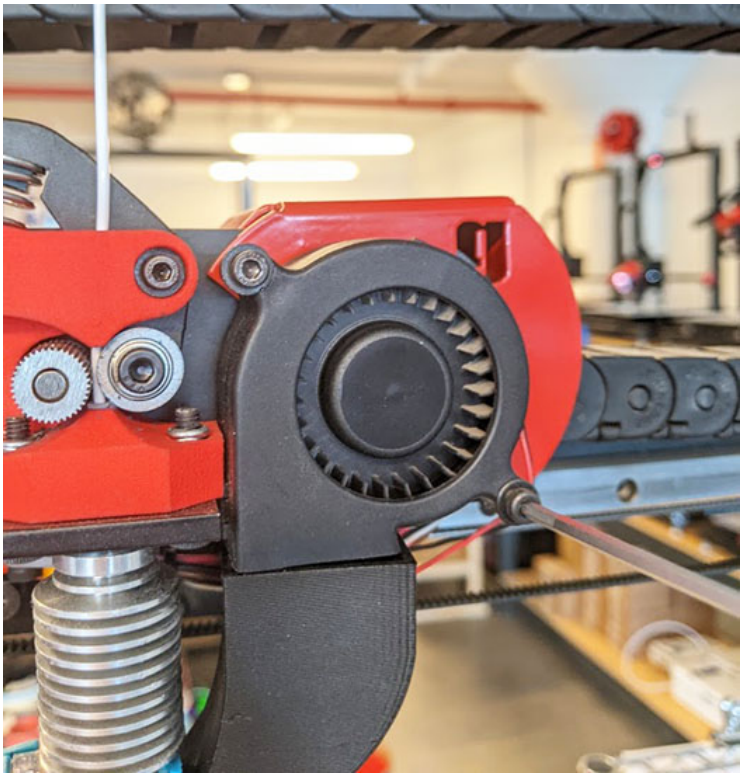
Installing an E3D Hotend on a gMax 2

Overview

You may need to replace the e3d hotend on your gMax 2 and this guide will walk you through the steps to install a fully assembled hotend from our store.

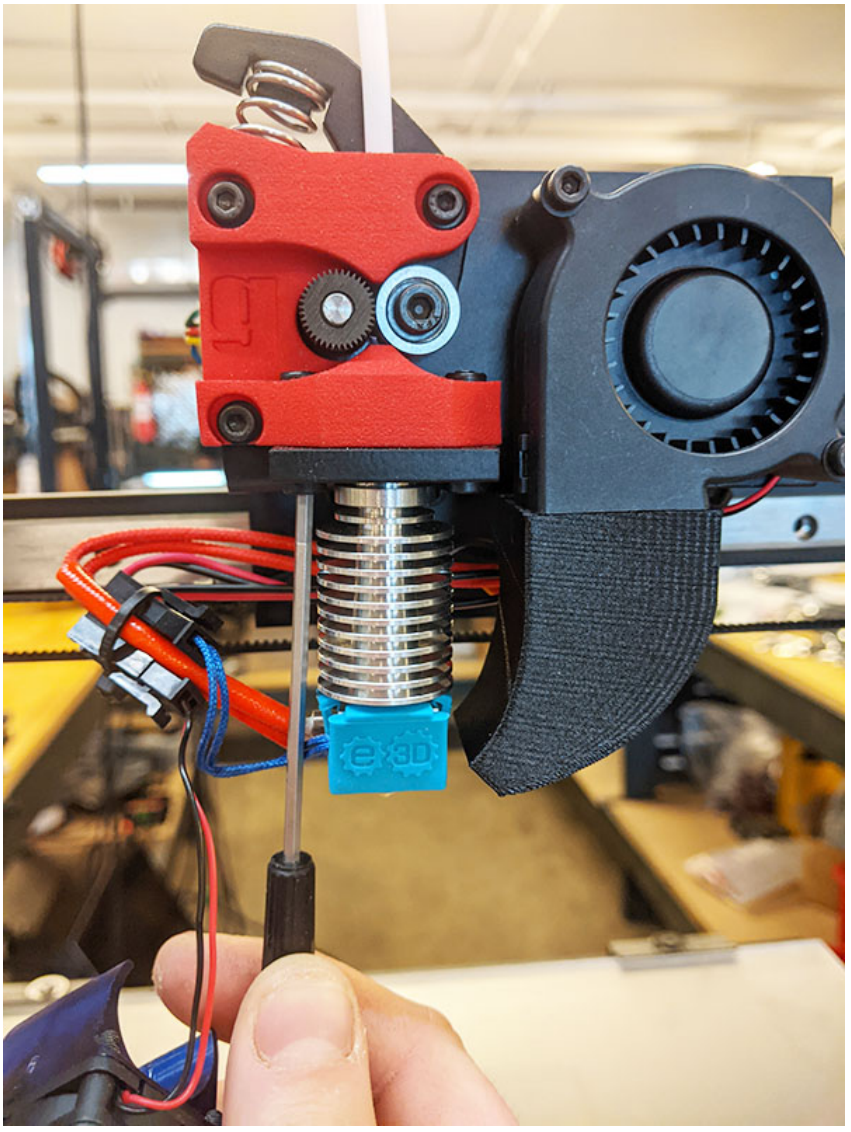
Step 1:

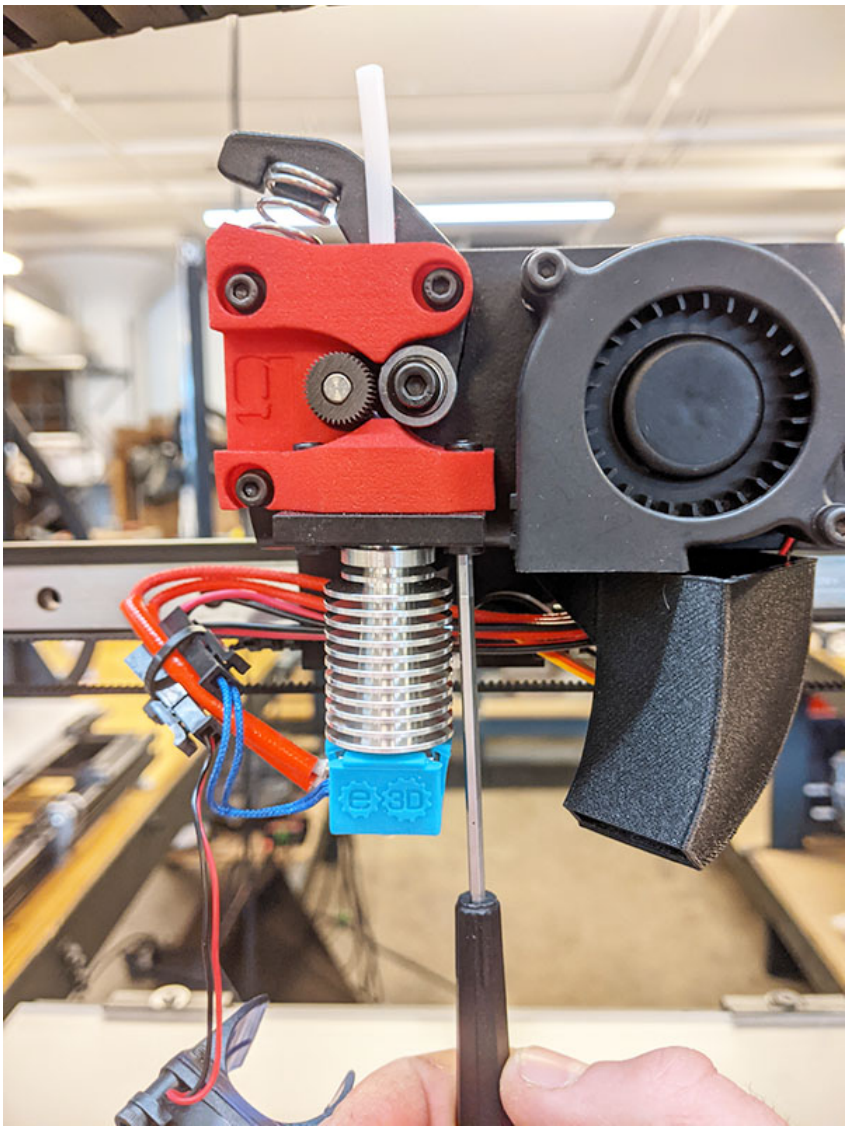
Raise your extruder by going to "**gMax Tools > Raise Z 100mm**" or go to "**Prepare > Move Axis > Move Z > Move 1mm**". 200mm should be enough. Turn off your machine then using a hex wrench, remove the metal red cover on the extruder by removing the two bolts.



Step 2:

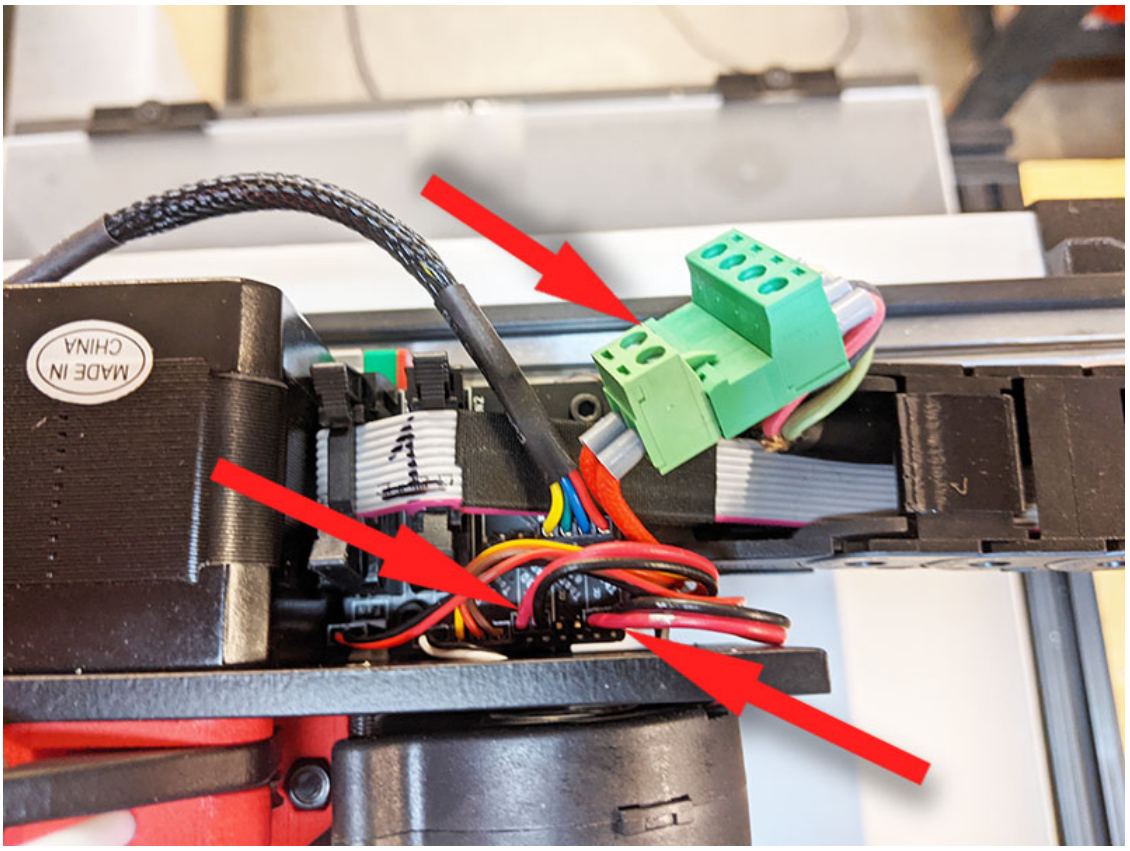
Using a hex wrench (included with your gMax), loosen the two bolts holding holding the hotend to the 3d printed bracket. Note you may need to loosen the fan shroud and remove the e3d cooling fan to make it easier to reach the bolts.





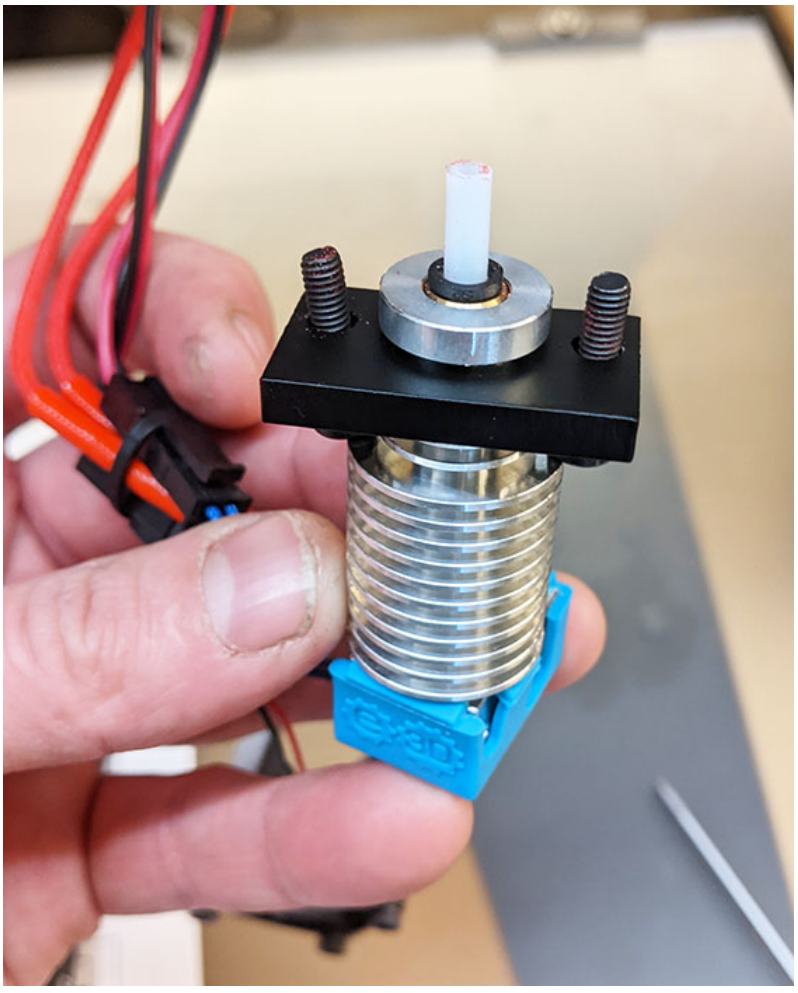
Step 3:

Pull the hotend down out of the extruder and cut any zip ties holding the wires. **Be cautious not to cut the wires.** Unplug the green connector in the extruder, the active cooling fan and the thermistor connector from the circuit board. **Refer to step #8** for a comparison of older and newer extruder boards. Shown below is a newer pcb and the wires are in different locations than the v1 board.



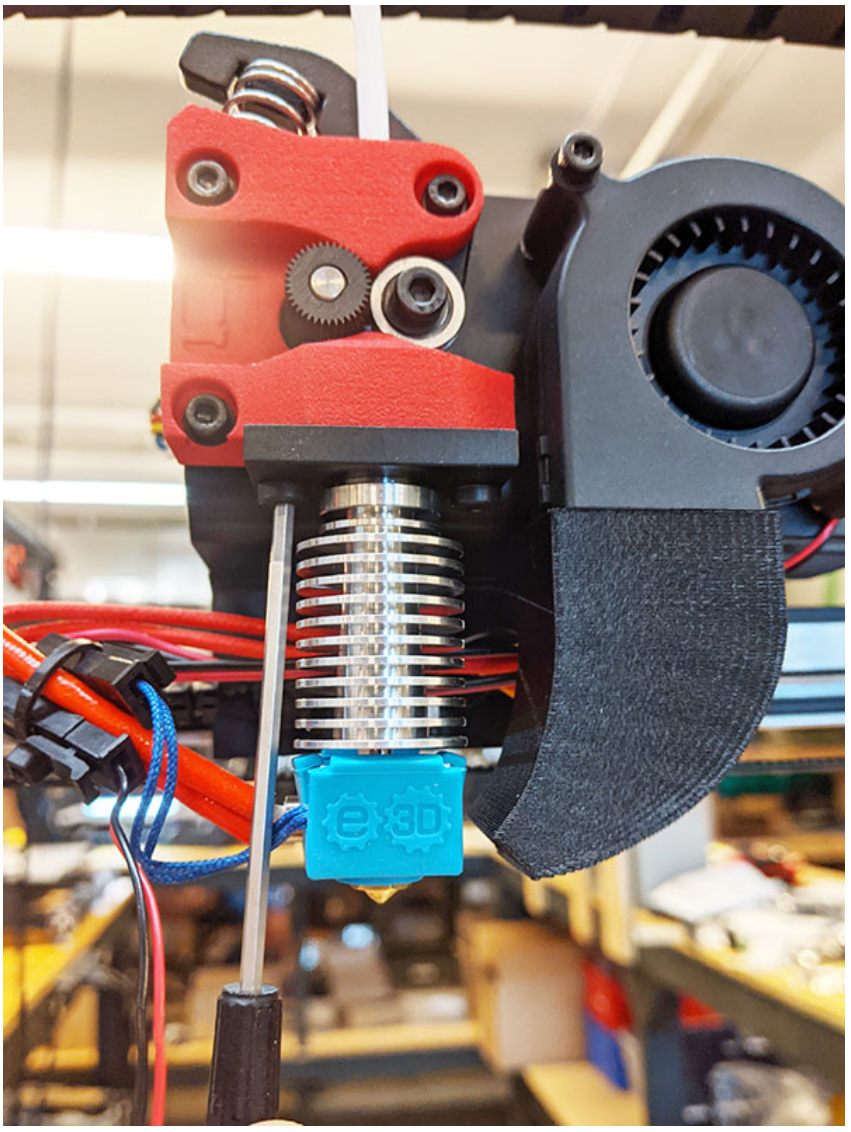
Step 4:

Insert the white PTFE tube in the new hotend and install the hotend on the extruder. The tube will slide inside the printed bracket. The metal plate and bolts go on either side.



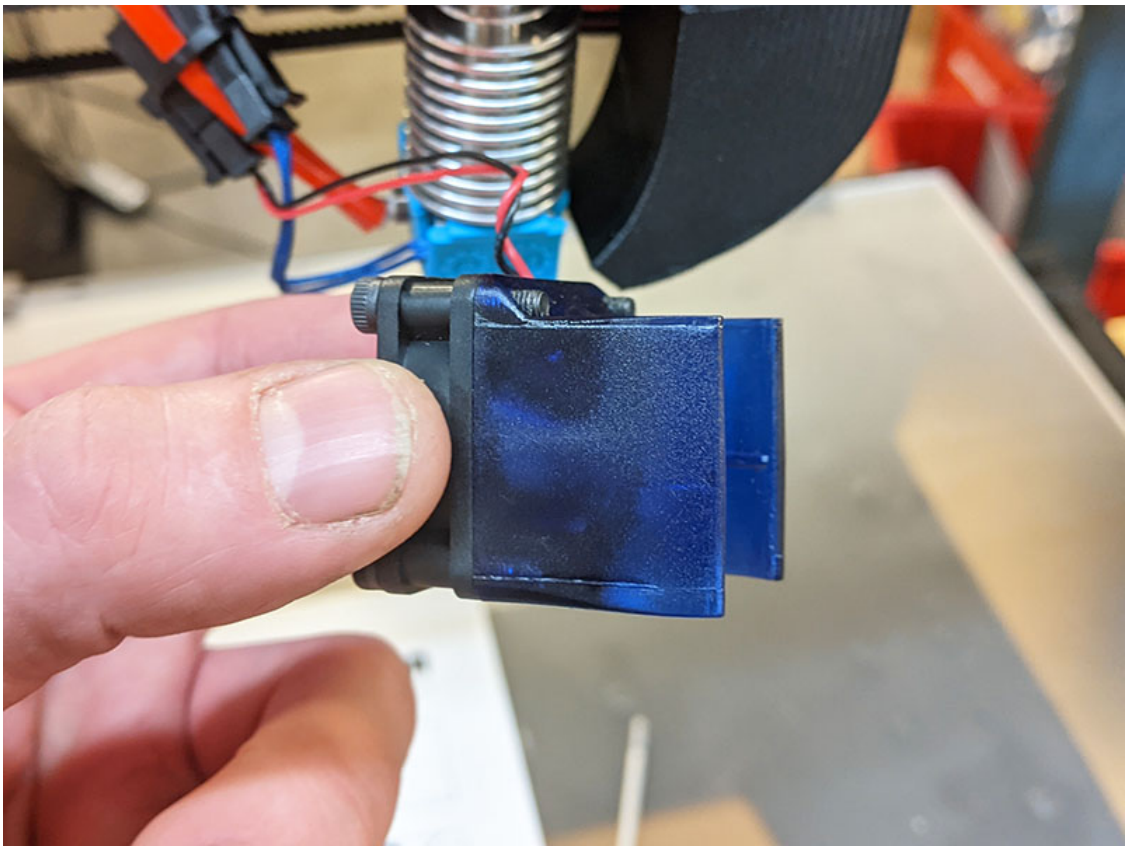
Step 5:

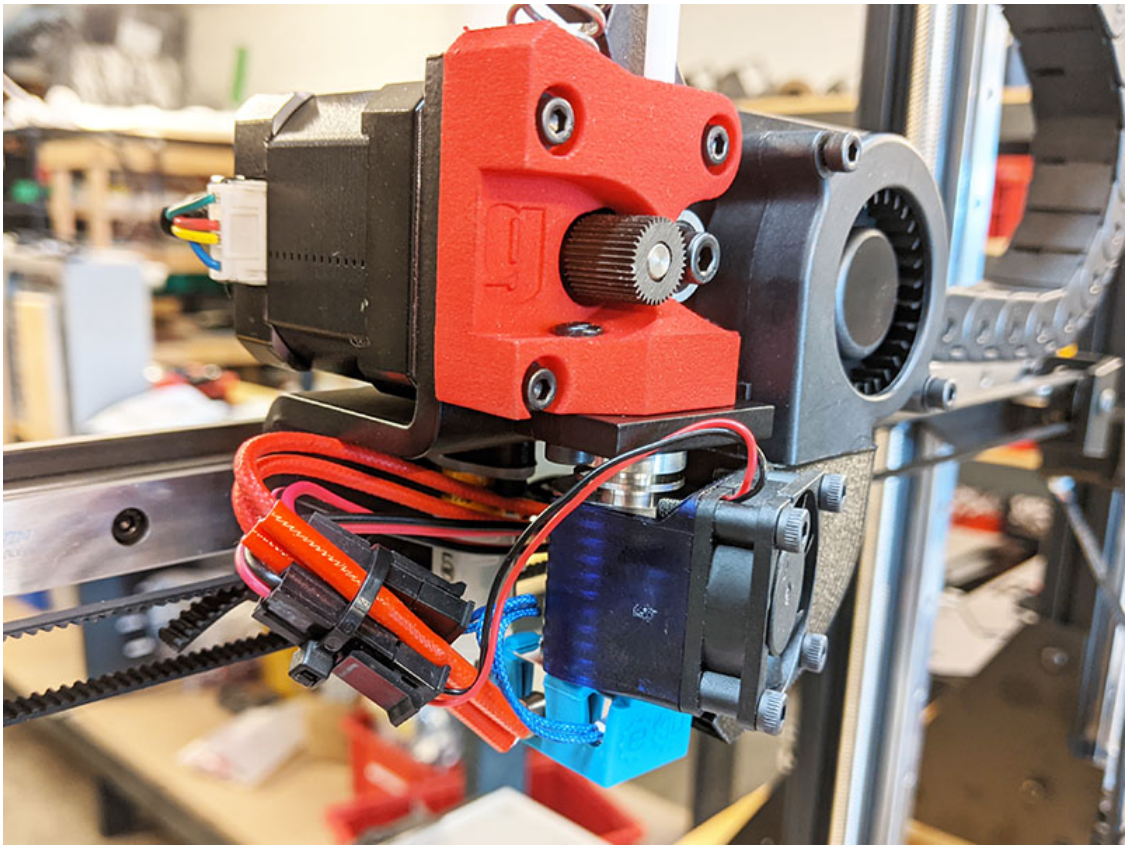
Tighten the bolts on either side of the extruder making sure they are threading into the lock nuts on the top. Make sure the e3d is positioned with the wires coming out the left side. **Do not attempt to rotate the hotend after it is tightened or you risk breaking the heat throat or loosening the heat block.**



Step 6:

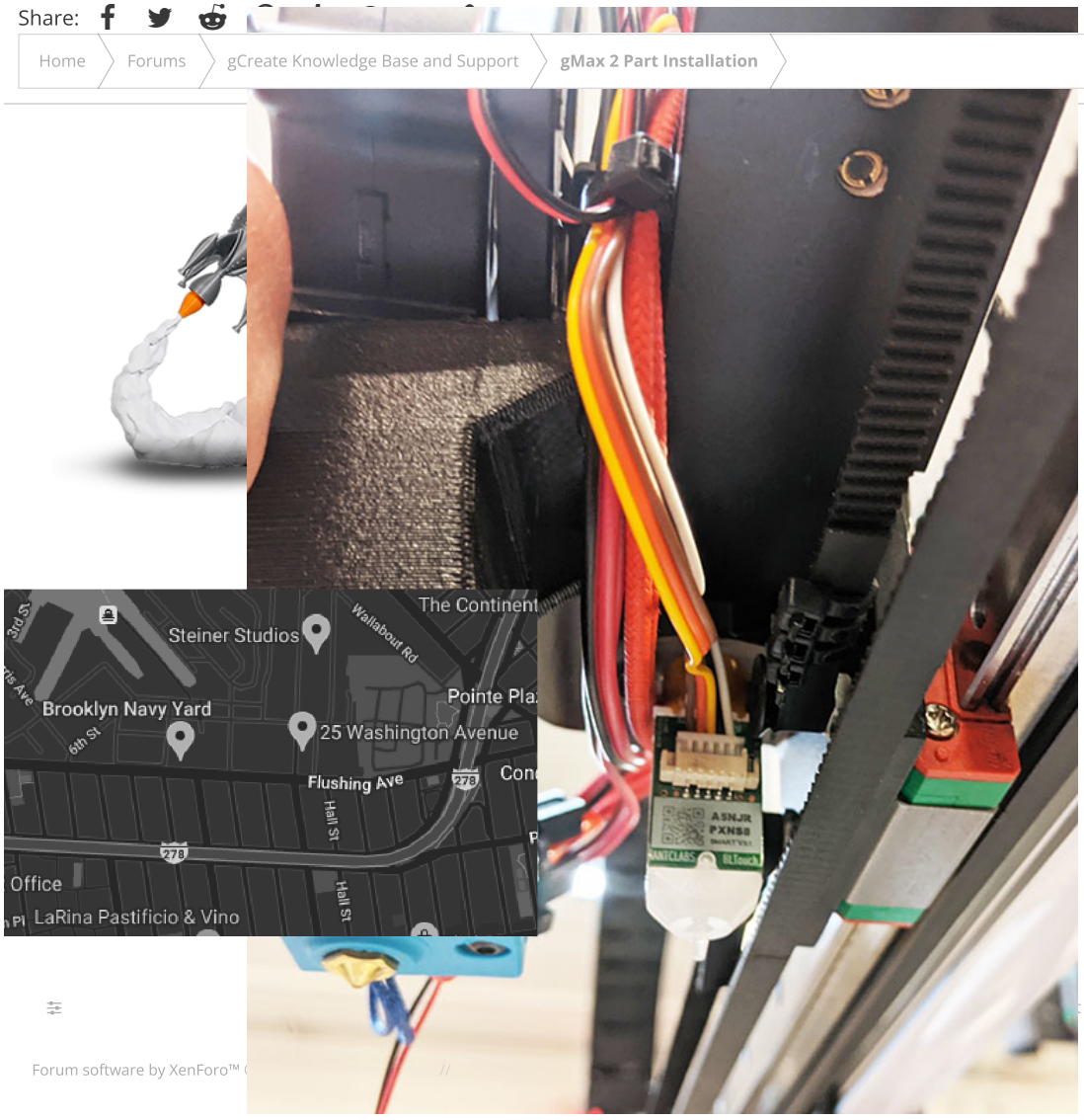
Reinstall the active cooling fan making sure the "indent" is on the top, and the bottom of the bracket is flush with the bottom of the heatsink. Do not install upside down or the heat block might burn the fan. Also straighten the fan shroud and tighten the bolt making sure it is not touching the heat block.





Step 7:

Secure the wires using the supplied zip tie making sure they are clear of the hotend any not hanging below the nozzle.

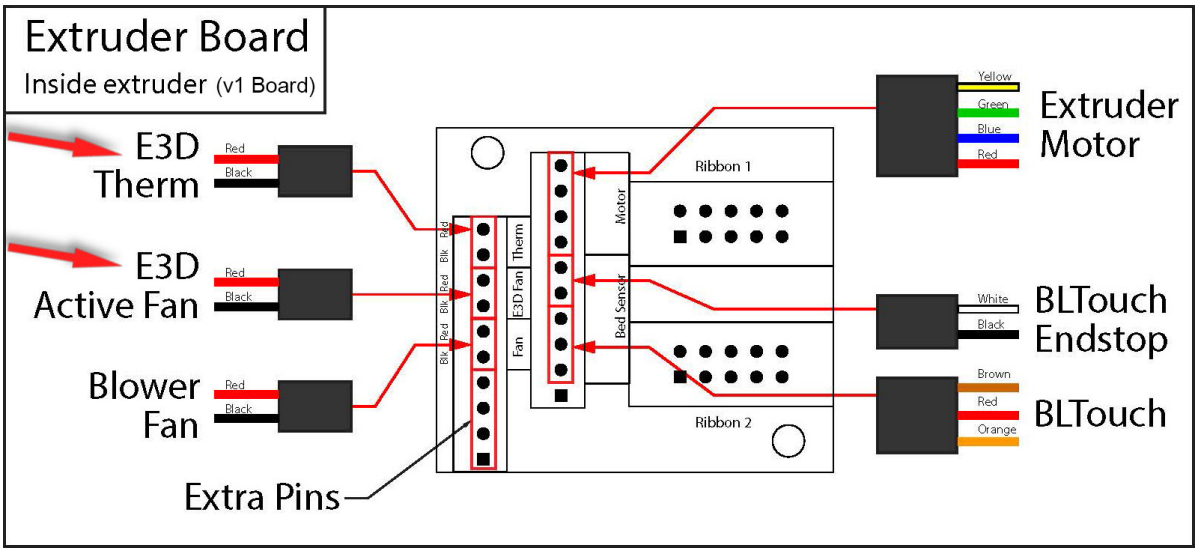


Step 8:

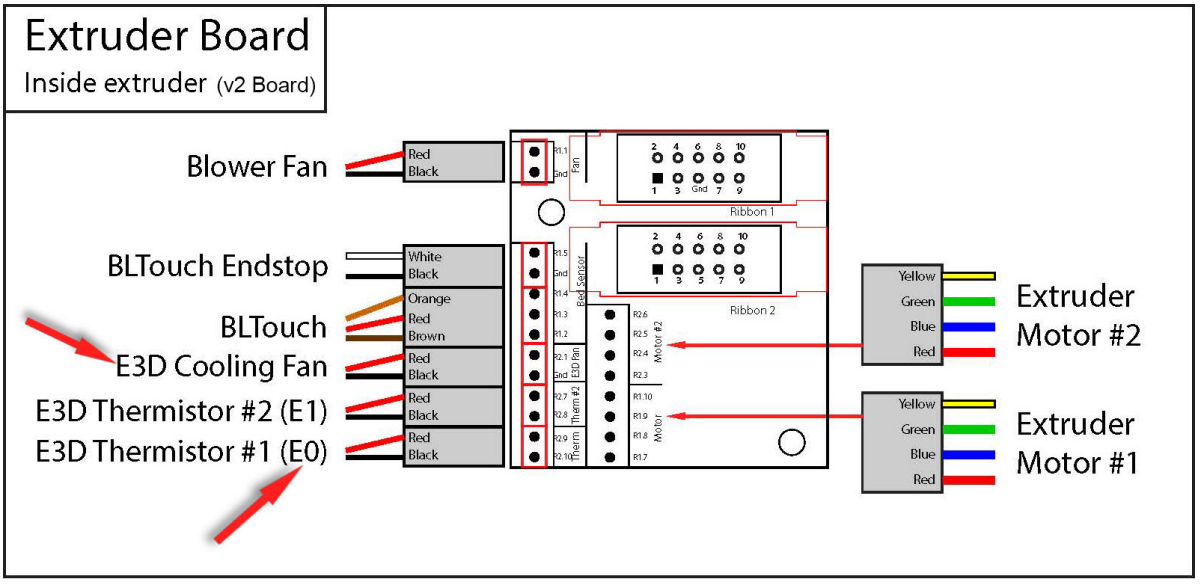
Plug in the cooling fan, thermistor and hotend wires into the circuit board. Depending on your printer, the extruder will either have a v1 board or a v2/v3 board. Use the diagrams below when plugging in the wires making sure to match the orientation. Also double check to make sure the wires are plugged in correctly before turning the printer on to avoid damage.

For the green hotend connector, the red/black wires are for a single extruder and the green/white wires are for a 2nd extruder (for dual extruder setups).

v1 Board



v2 and v3 Boards



Step 9:

As a safety precaution, you can power the machine from the USB cable only to see if the hotend reads temperature.

After turning on the machine, if the hotend doesn't heat, the temperature doesn't read or the blower fan doesn't work, make sure to check all the connections for the correct orientation and make sure none of the wires look cut or are broken.

Even though we test the hotends prior to shipping, you may notice a little smoke after the first heat since any remaining oil from the manufacturing process may burn off.