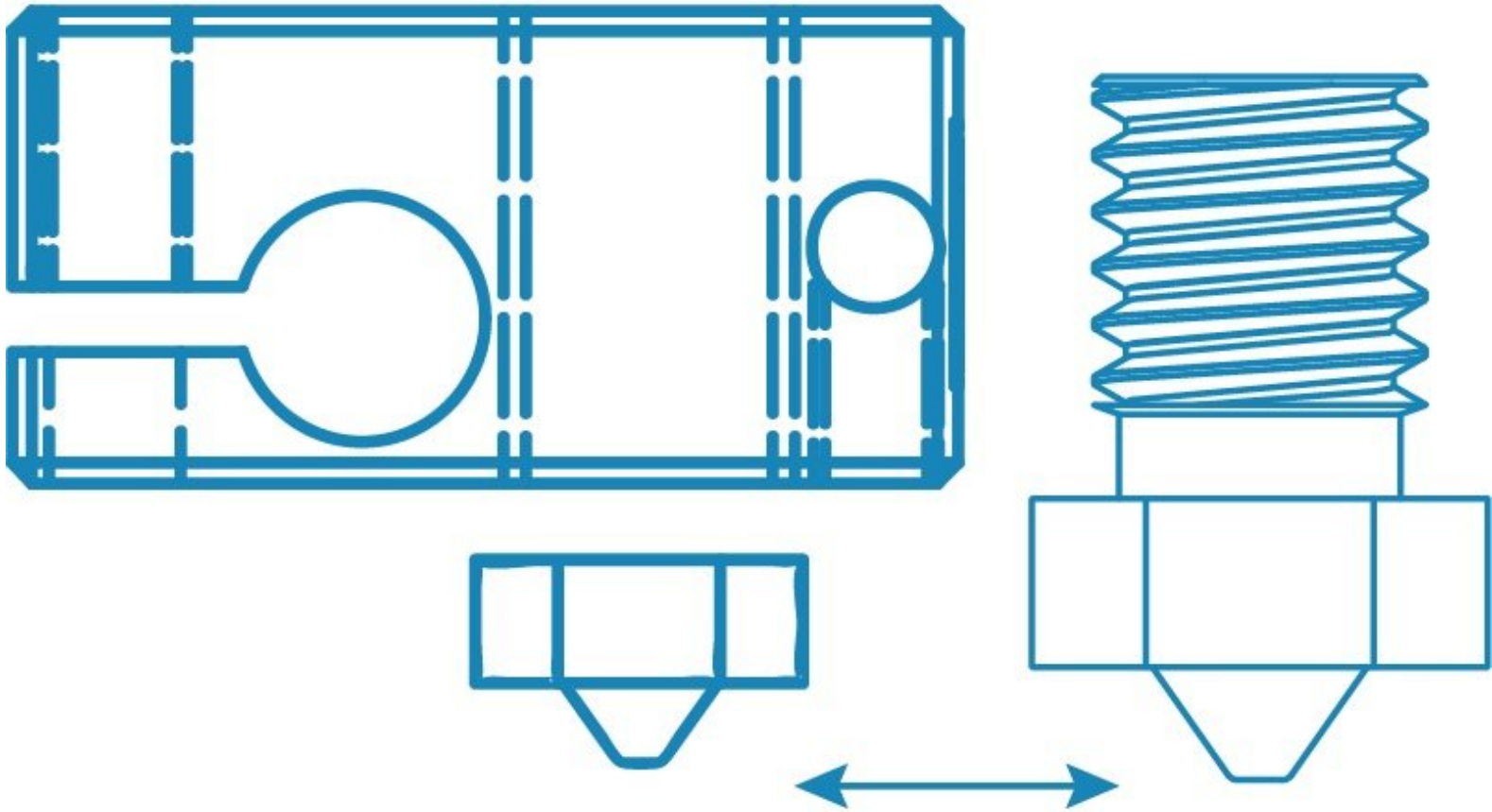




# Changing Nozzles

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## INTRODUCTION

Note: You'll be working with your printer while it is hot. **No matter how experienced you are, be extra careful not to burn yourself!**

### TOOLS:

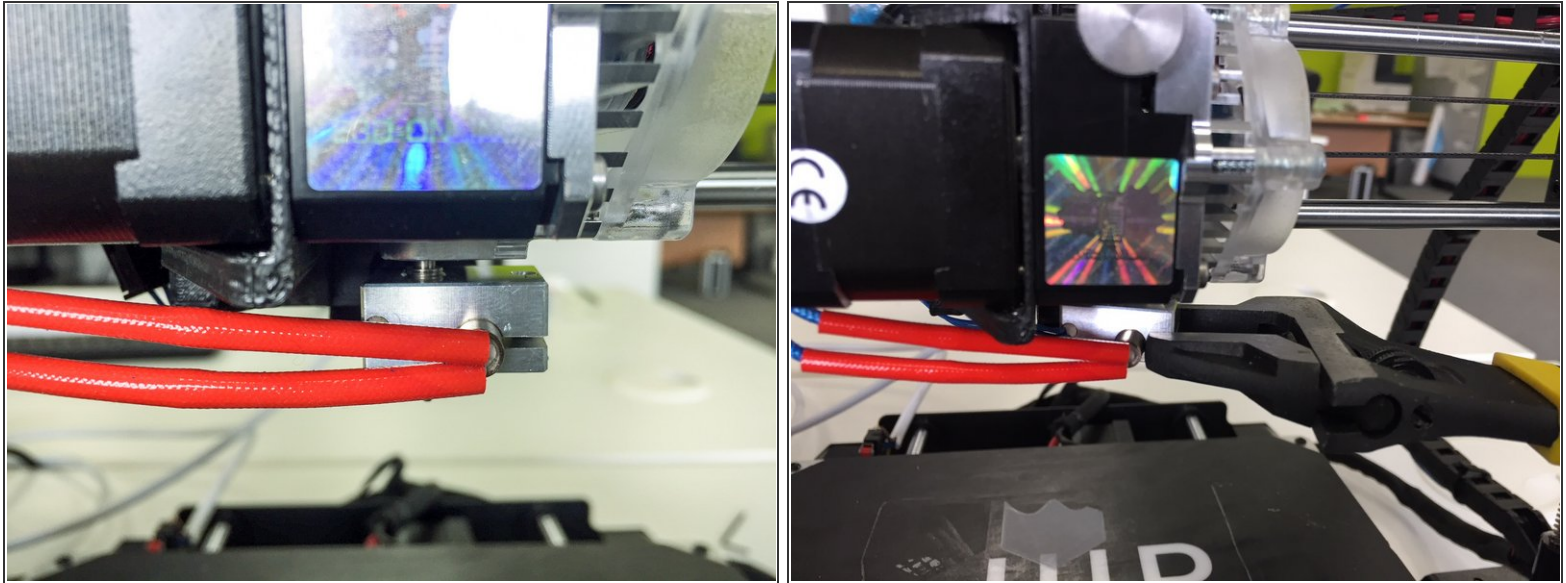
- [Pliers](#) (1)
- [Nozzle Spanner](#) (1)

### PARTS:

- [V6 Nozzles](#) (1)

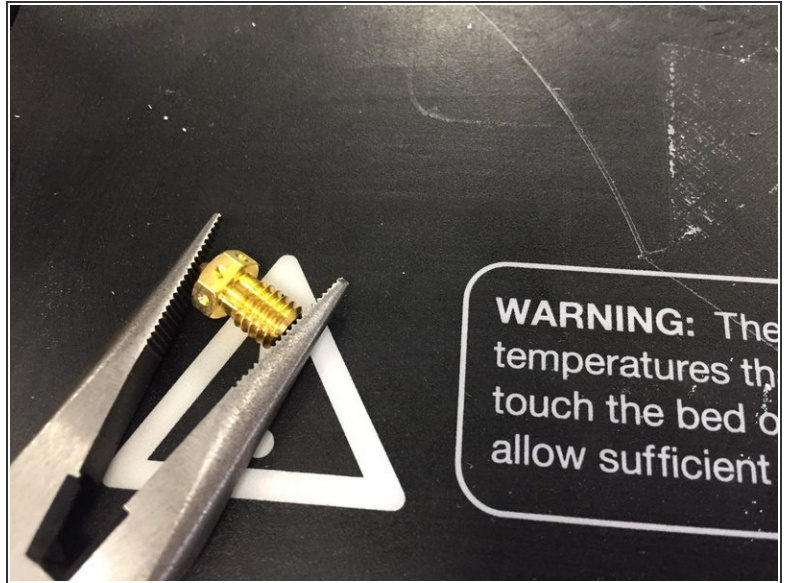
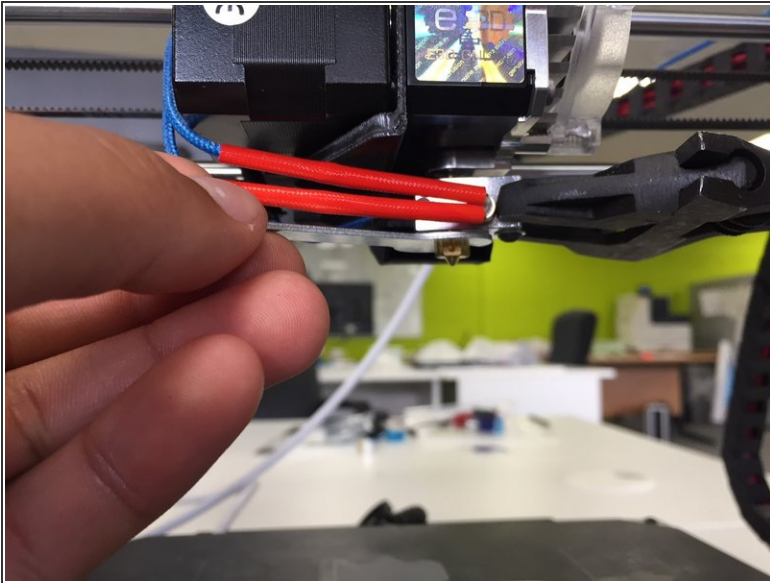
*Procedure is the same for Volcano Nozzles*

## Step 1 — Changing Nozzles



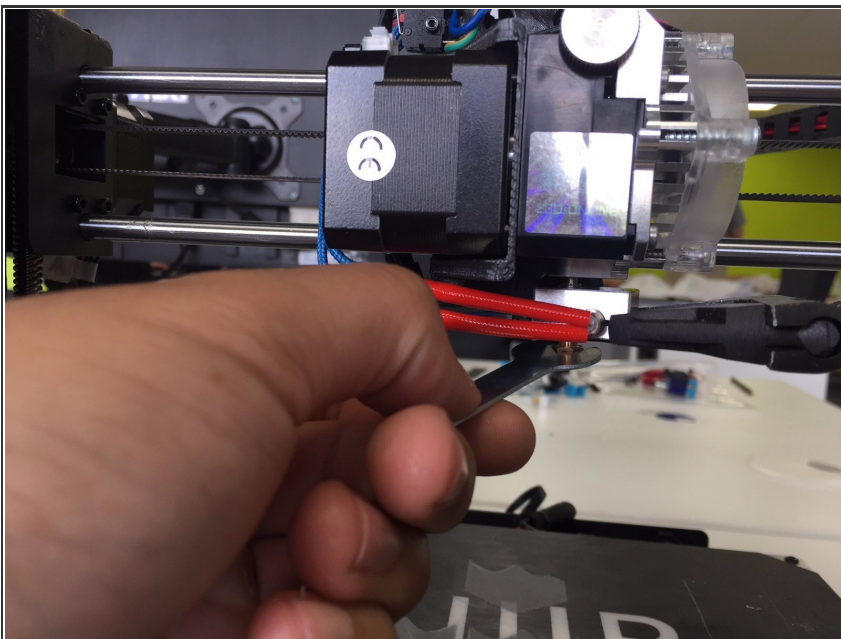
- ⓘ Note: Do not mix and match V6, Volcano, or Cyclops nozzles with the other's heater blocks. Filament will go everywhere and you will be sad.
- Using pliers rotate the heater block to loosen the heat break from the heat sink.
  - Heat up your HotEnd to 300°C. Do not overshoot as you risk damaging your thermistor.

## Step 2



- Unscrew the existing nozzle from the heater block.
- ⚠ Be careful when unscrewing the nozzle the last little bit, as it will fall unless you grip it. Don't let it fall on you or something flammable.
- ⚠ Use a pair of pliers to move the nozzle to a non flammable surface to let it cool down

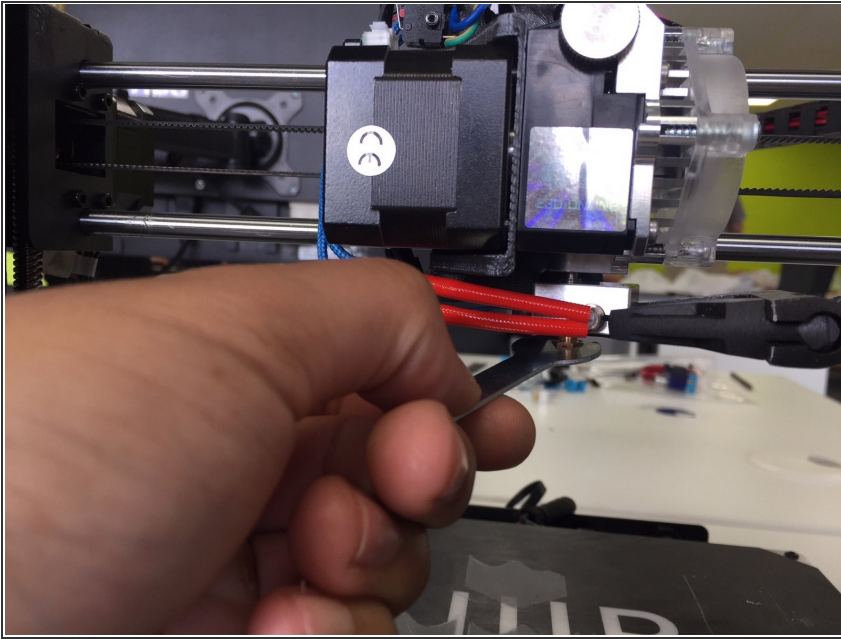
## Step 3



- ⓘ If you are not experienced working around a HotEnd while it is hot, we recommend cooling down your HotEnd before inserting the new nozzle.
- Screw in your new nozzle
- Once you have it threaded in, you can heat up your HotEnd again (if you'd cooled it down earlier)
- Heat up the HotEnd to 300 °C for standard setups.

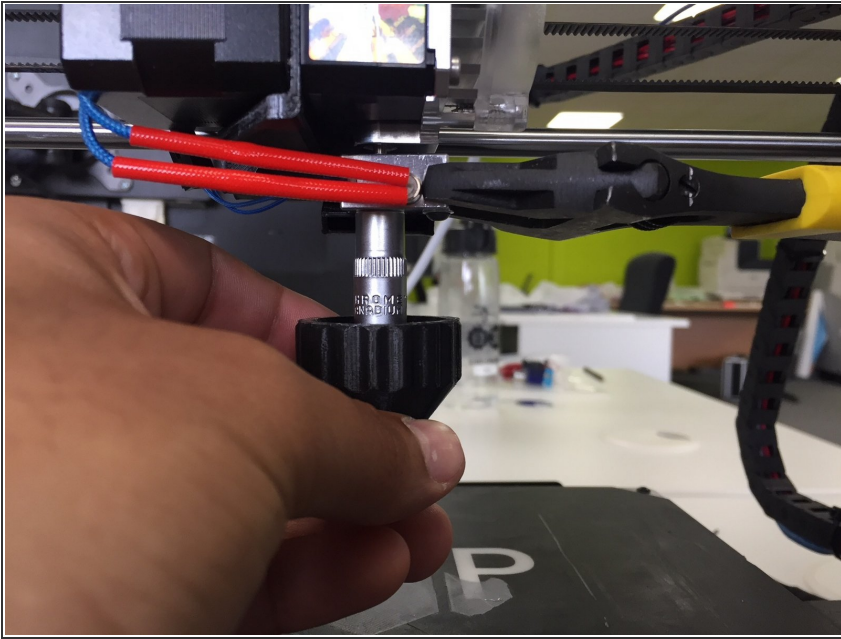


## Step 4



- Grip the heater block with pliers or a spanner.
- You want to aim for 2Nm of torque on the hot nozzle—this is about as much pressure as you can apply with one finger on a small spanner.
- ⚠ Do not apply force to the heat break, it is more fragile than your heater block or nozzle.
- ⚠ Over tightening your nozzle can damage it or your heater block. It's better to have your nozzle be too loose, and proceed to tighten it later, rather than damage your hardware and have to buy new parts.
- Cool down your HotEnd
- Re-tighten the heat break into the heatsink

## Step 5



- To make nozzle changing easier you can print and use the nozzle torque wrench. For our Nozzle we recommend 2nm of torque. A good example of such printable torque wrench can be found here: <https://www.thingiverse.com/thing:261305...>
- ⚠ Please note that for the above file the material that you print the torque wrench with is important.

You're all done! Happy printing! If you notice any leaking filament, hot-tighten again—a littler tighter this time.