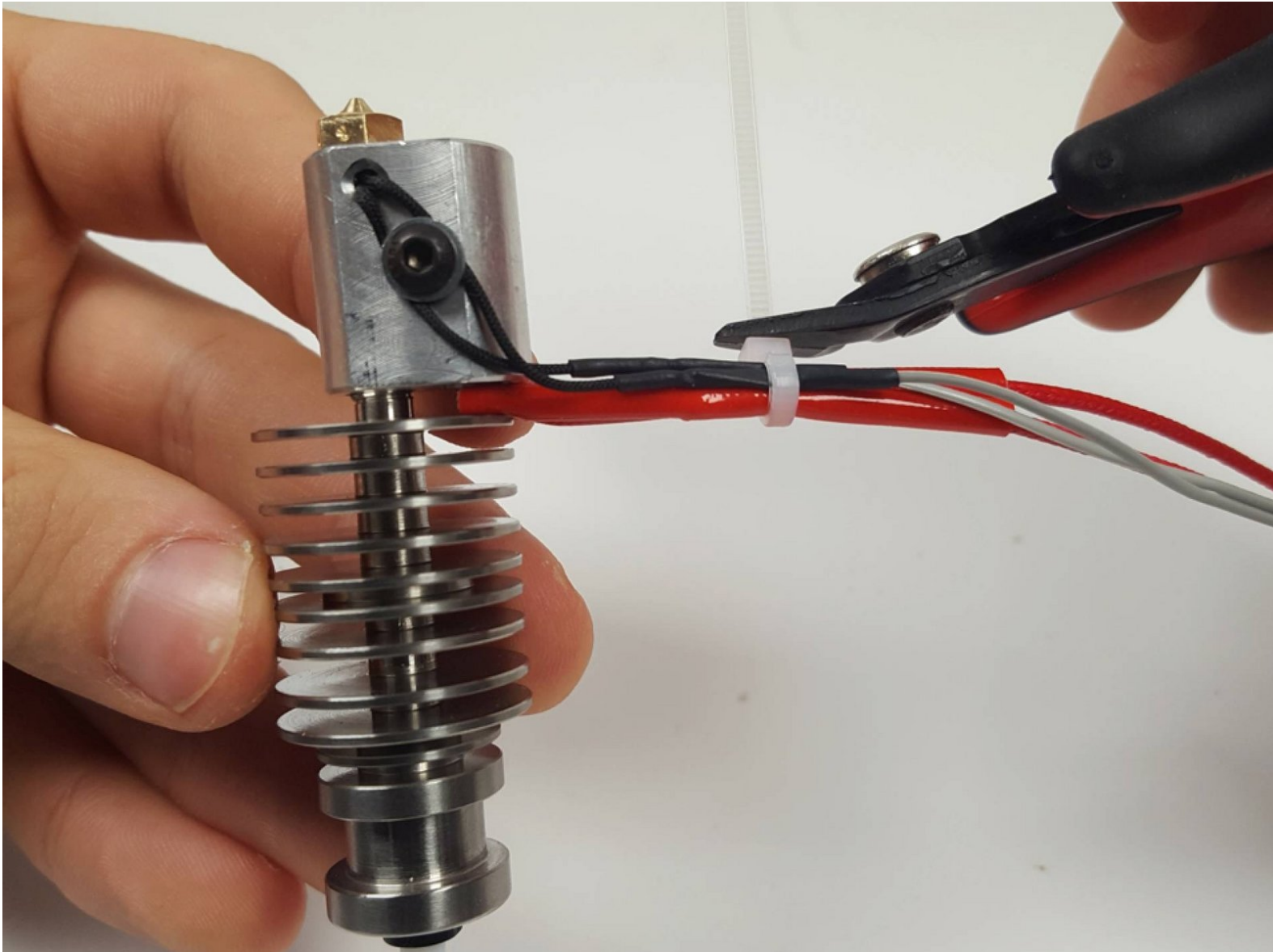


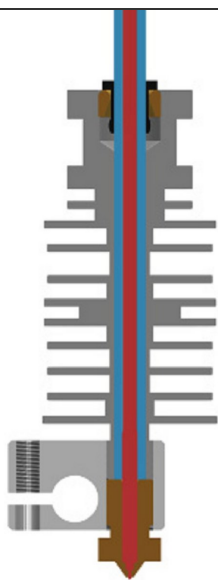


↳ Heatsink

In this guide, we will install the PTFE tubing and the heatsink.



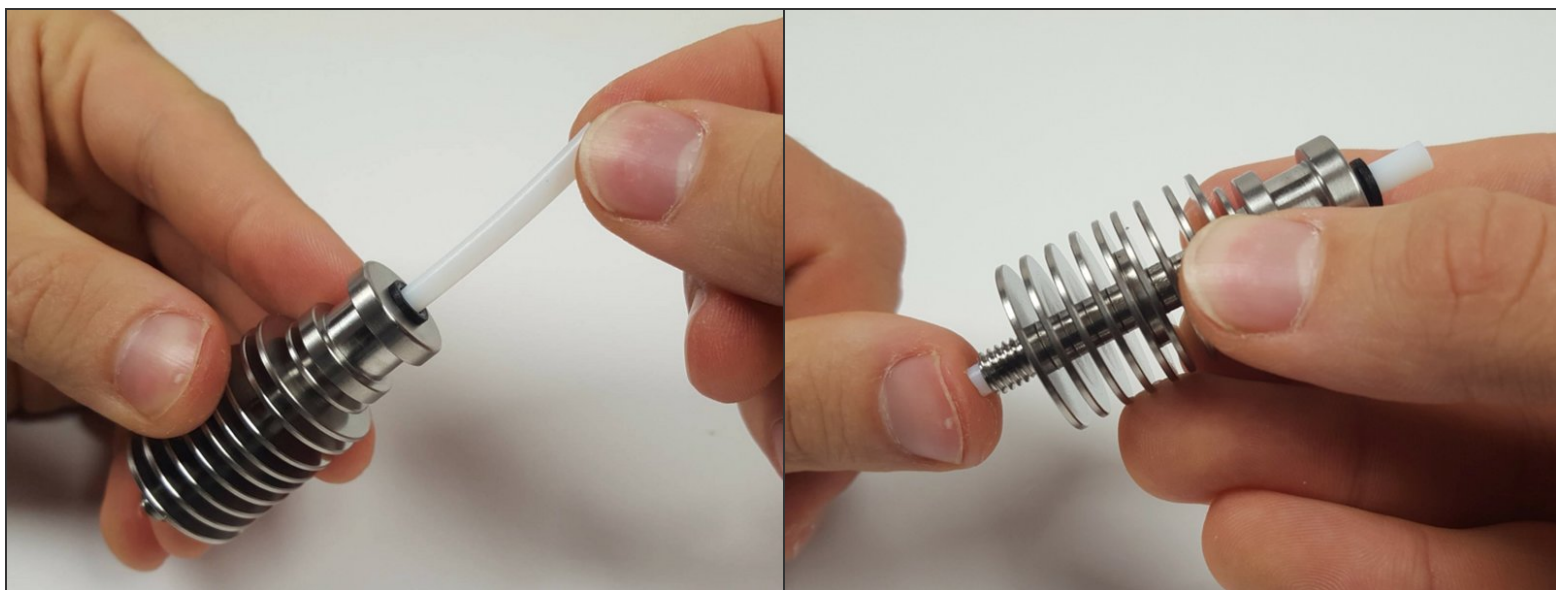
Step 1 — PTFE Tubing, Guidance




⚠ The PTFE tubing is **mandatory**, you must use the tubing or the HotEnd will not function properly.

- The tubing should be inserted from the top of the now assembled hotend and pushed as far down into the hotend as possible at all times.
- The end of the tubing that is inserted into the hotend must be cut cleanly and squarely with a razor.
- To release the tubing from the heatsink simply press down on the black collet in the top of heatsink while pulling on the tubing.

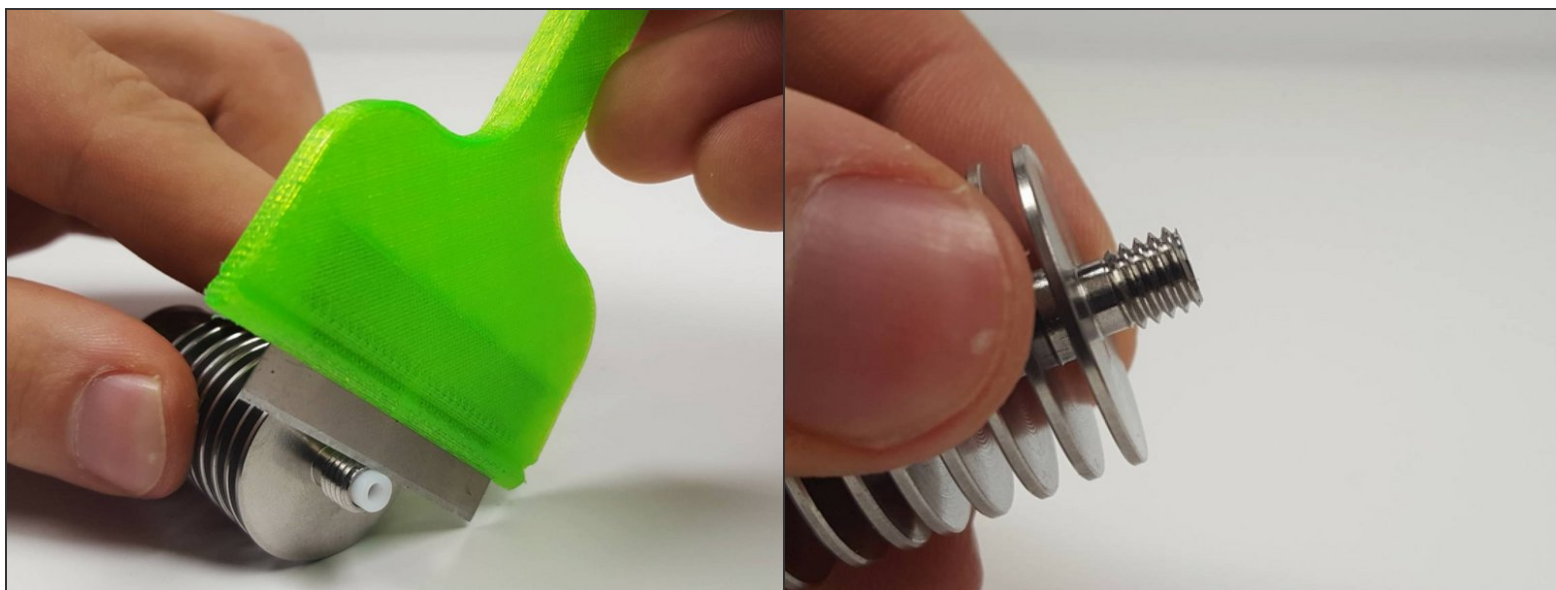
Step 2



 Note: As of summer 2018, we ship our hotends with a premium high-temperature **blue** PTFE tubing. Rejoice.

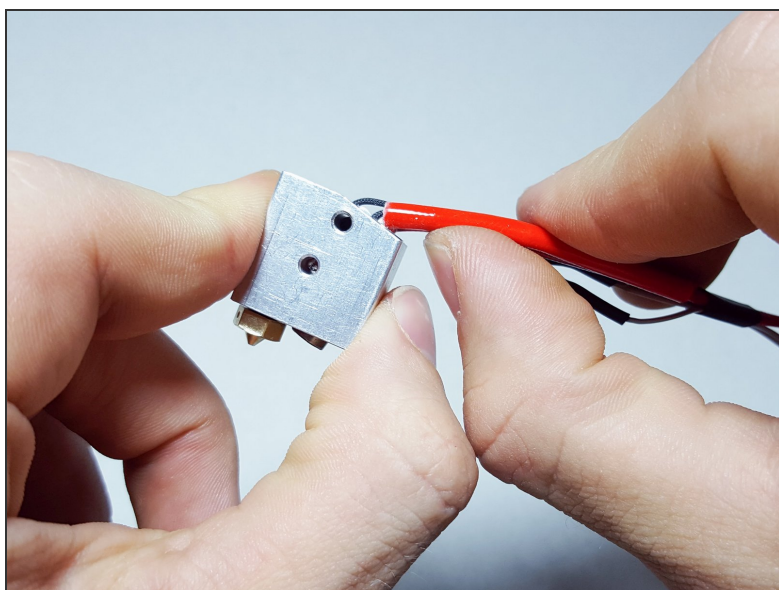
- Inset the PTFE tube all the way through.
- Then, push it back up (as much as the black collet on top rises) so that about 2mm of the tubing ends up sticking out of the threaded end.

Step 3



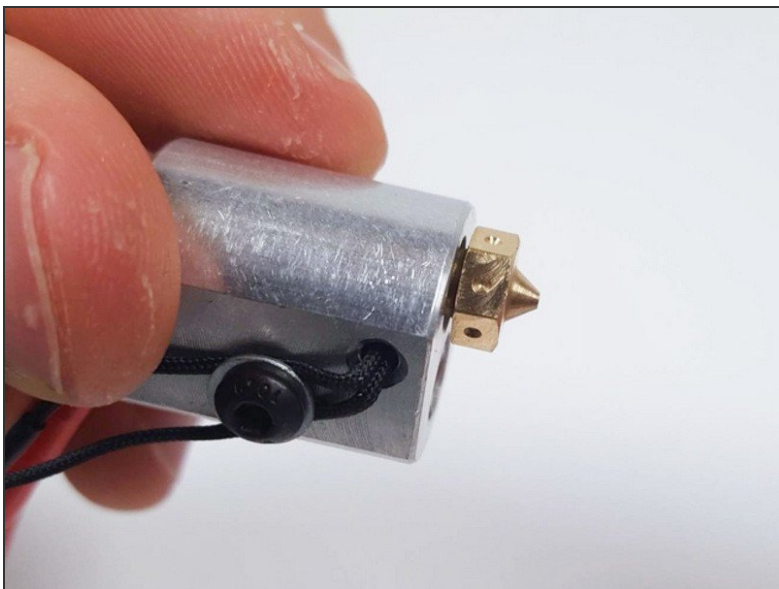
- ❗ The PTFE guides the filament from the cold side of the heatsink right down into the hot nozzle. For it to do so effectively it must butt up against the nozzle squarely and be positively secured in that position.
- Cut the PTFE squarely against the stainless heatsink with a razor blade, x-acto knife, or other very sharp cutting instrument.

Step 4



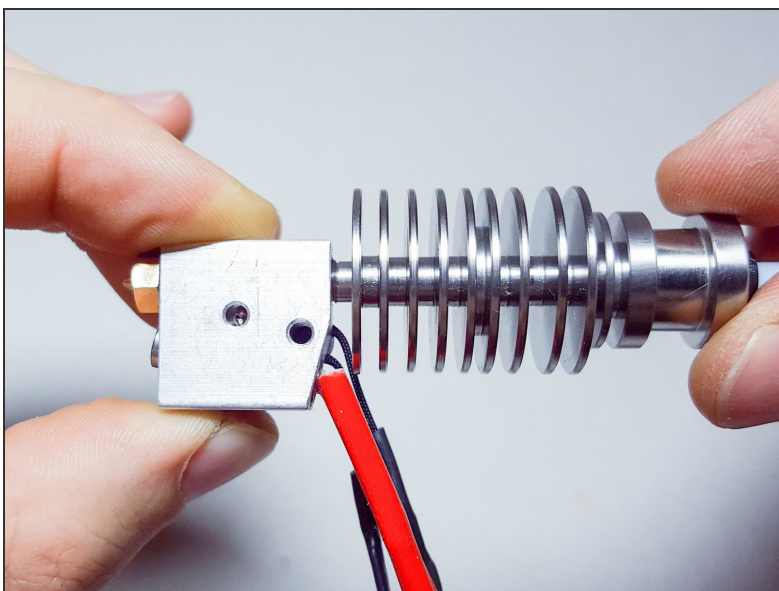
- Gently bend the red heat cartridge wires at about 90 degree angle straight back (see picture).

Step 5 — Heatsink P.1



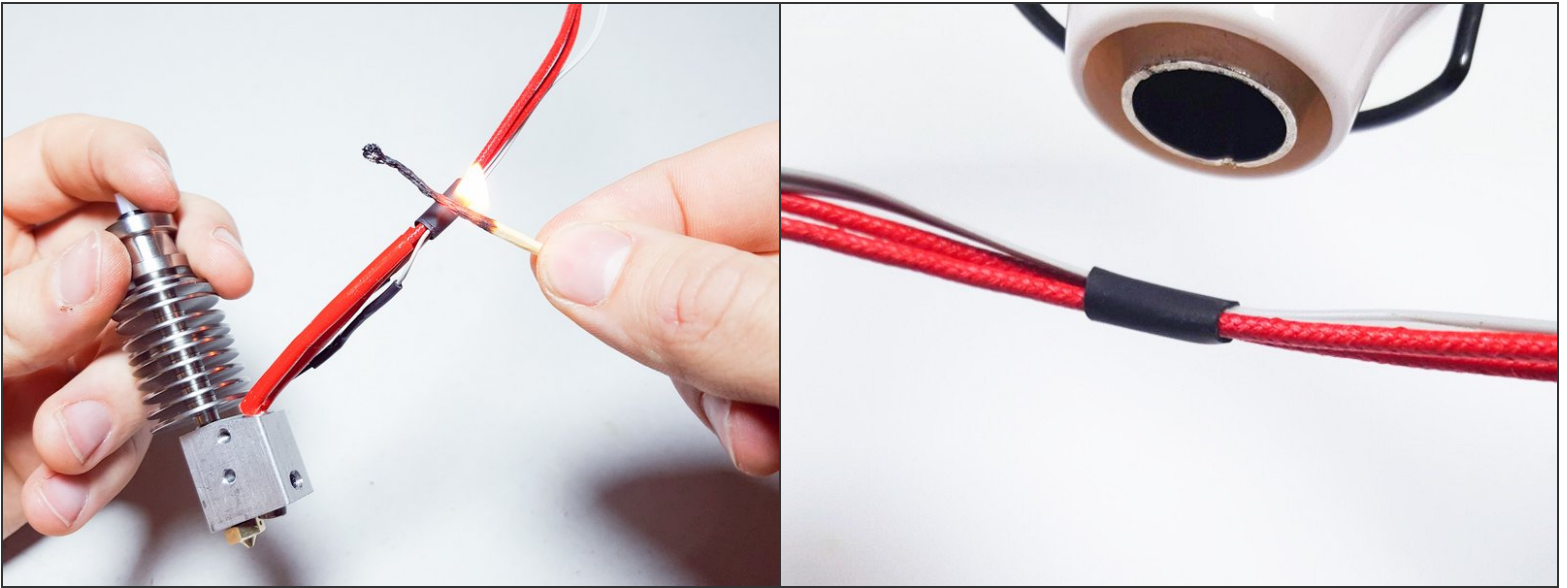
- Unscrew the nozzle about 1/2 of a turn (180 degrees) to create a small gap between the nozzle and the heatblock.

Step 6



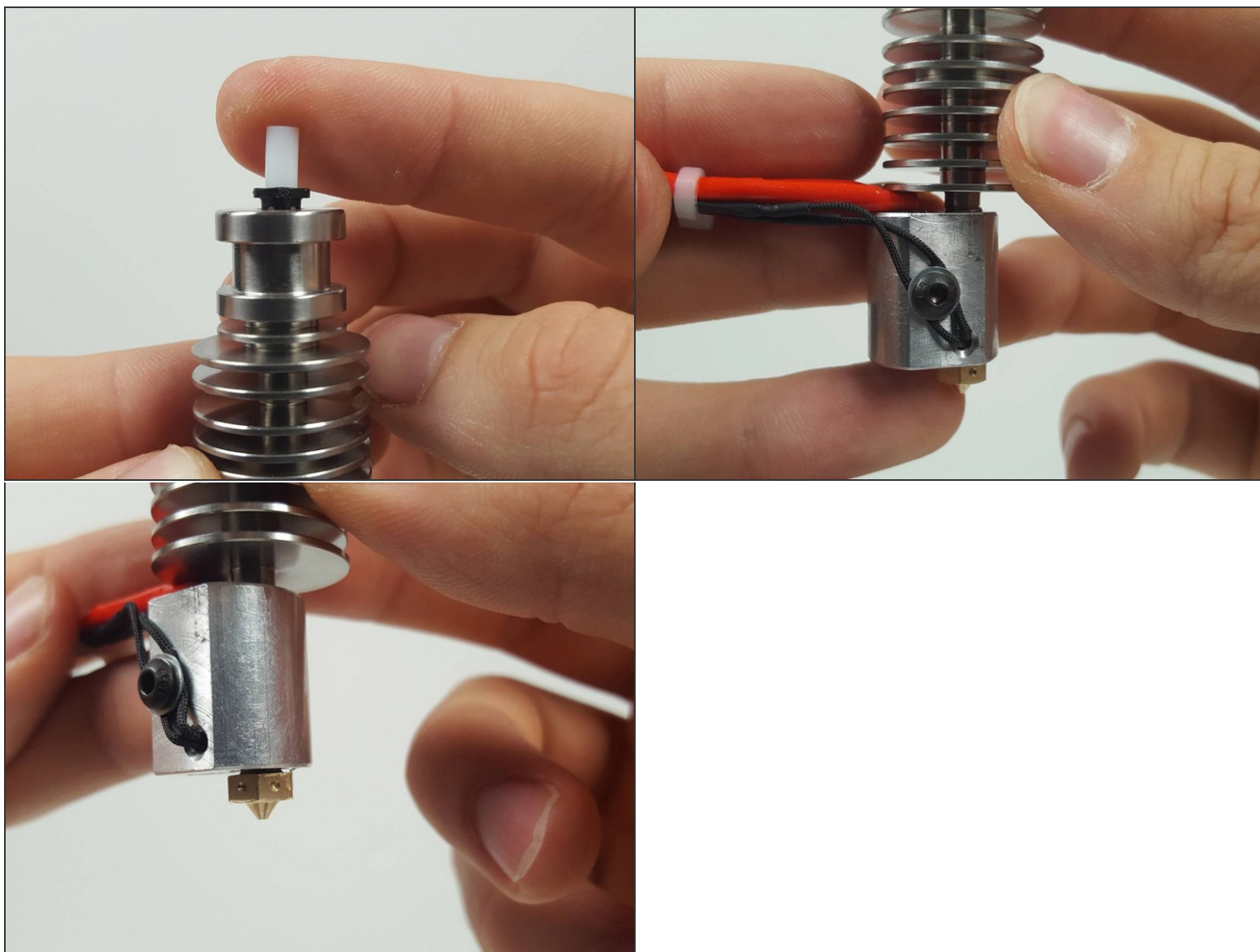
- Screw in the heatsink all the way to touch the nozzle.
- The wires will sit between the heatblock and the heatsink.

Step 7 — Heatsink P.2



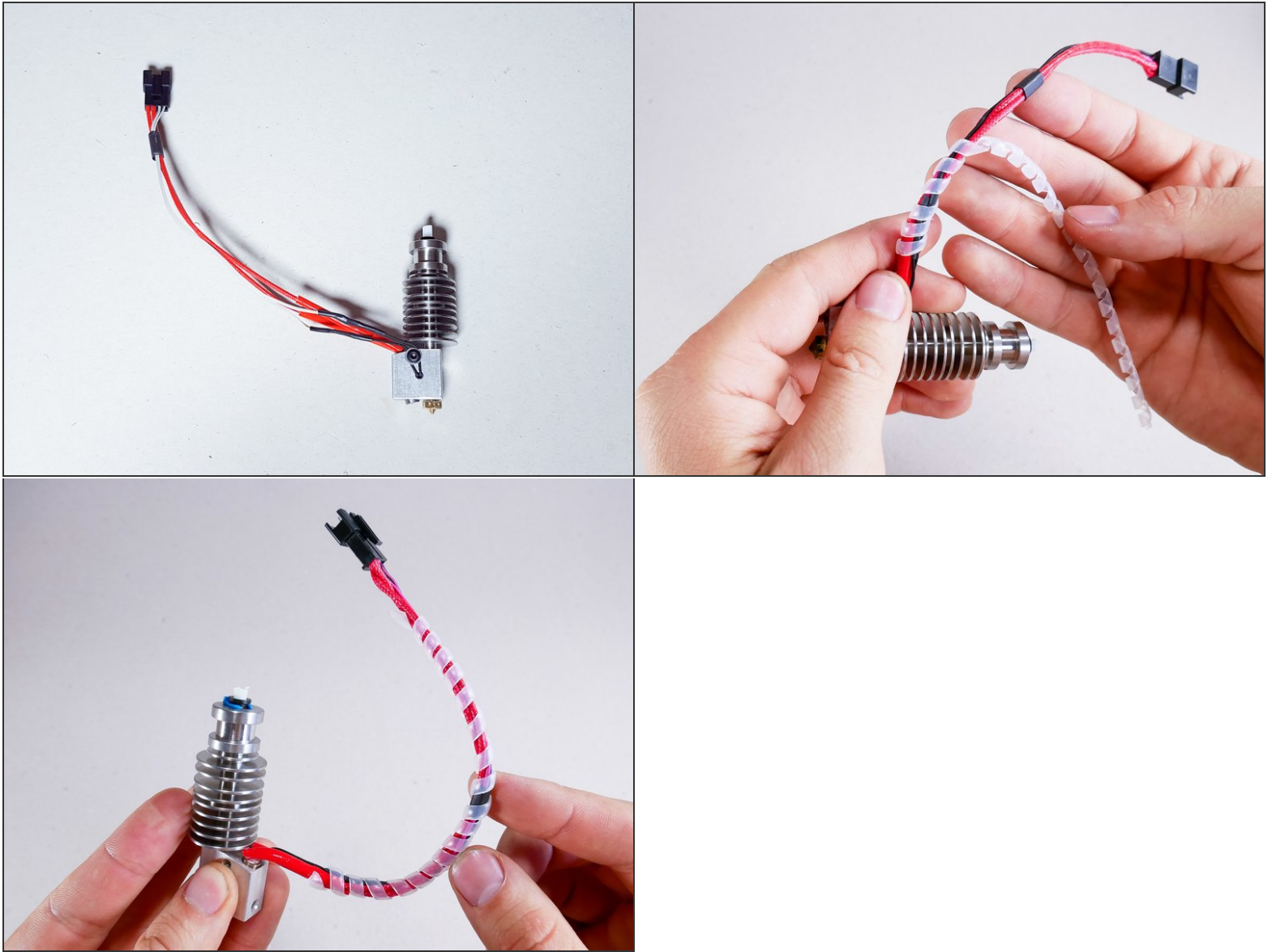
- Shrink the leftover heatshrink at an appropriate place.

Step 8 — CheckPoint: State of the HotEnd



- The PTFE should be sticking out on the top and not moving in any direction.
- The black collet should be all the way up.
- None of the heatshrink should ever touch the heatblock. Only the fiberglass sleeving can withstand printing temperatures.
- There should still be a small gap between the nozzle and the heatblock. The gap can be smaller than the one in the picture, but some gap must be there.

Step 9 — Looking good!



Step 10



Step 11 — You're not done: Hot Tightening !



⚠ Before you can use your hotend, you have to perform a *Hot Tightening* procedure. Hot tightening is essential to sealing the nozzle and heatsink together to ensure that molten plastic cannot leak out of the hotend in use.

- A) If this is the first time you're assembling the hotend, you're done for now! You'll do the hot tightening once you have an otherwise functioning JellyBOX.
- B) If you already have some JellyBOX built, then you may go ahead and follow the [Hot-Tightening Guide](#).