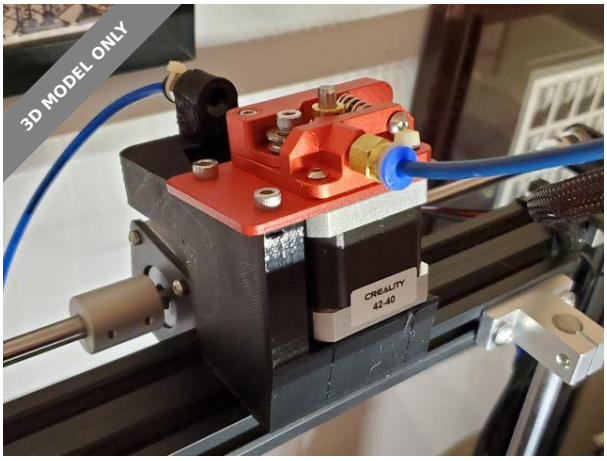

Creality Ender 5 (and Pro) Extruder Re-mount (UPDATED 1/23)

jimmiedave

VIEW IN BROWSER

updated 2. 8. 2023 | published 2. 8. 2023

Summary

Mounts your extruder top-center to shorten your bowden tube, reduce retraction, stringing.

3D Printers > 3D Printers - Upgrades

Tags: ender5pro relocate extrudermount filamentguide bowden

UPDATED: I've re-created this in Fusion 360, and adjusted holes, modeled in screw-threads. Should be more robust, less prone to cracking or slipping.

I made this mount so I could shorten my bowden tube, which in turn lets me reduce the retraction during prints to 5-6mm with PETG, helping to reduce stringing

You'll need a stepper motor extension cable, and a PTFE bowden tube kit with M6 and M10 connectors (same size as the Ender 5 I have here uses).

I recommend you look for a kit that has a tube cutter, so you can get a really straight end on your tube (though you can install this mod without removing your bowden tube from the hot-end; if you take this approach, trim excess at the extruder end).

You'll also need a couple screws and matching V-slot T-nuts to secure the mount to the printer. I _think_ I used M5x8mm button-head socket screws.

You _will not_ have to tap any metal.

I used the PTFE tubing from the bowden kit to act as a filament guide tube from the mounted filament guide to the connector at the back of the extruder. I used my new flexibility to mount the filament spool holder on the left side of the machine sort-of-flush with the left side (not really intruding into the cube frame, you understand), which better suited my space and accessibility needs. One could probably make a case for mounting it in back and flush, too.

It can be a little finicky to add tightly curled filament (from the last stuff on a spool) and get it into the extruder properly. I usually work it up to the extruder inlet (there's enough finger space to fiddle with it a little) and let the extruder motor take it in (hotend will have to be >170C for this to be allowed by the control panel) then once it's properly in the bowden tube, I release the tension and push it up to the hotend from the spool side.

I printed with PETG at 90% infill. Printed the mount on its left side (as you look at it mounted, looking through the printer) for minimal support. I used buildplate support only - the holes seem to make it through just fine, though you might have to clean 'em out a bit with very conservative drilling.

I mounted the extruder on the rail that holds the Z-axis bearing rods, and positioned the motor right in front of the Y-axis stepper (barely seen below the extruder mount in the picture). Placing it in the center of the rail gave me the opportunity to trim inches off the bowden tube, while covering the entire build plate. Make sure you experiment with the build plate and how much tube you have to leave behind BEFORE you cut.

It's important to re-route the hot-end cabling, and to zip-tie it to the relocated bowden tube. (I hadn't done so yet, and got the electrical cabling hooked around the X-axis gantry while I wasn't looking, which led to much panicky, loud, belt-skipping fun).

Model files

extruder-mount-v6.stl

---

filament_guide_01.stl

License

This work is licensed under a
Creative Commons (4.0 International License)

Attribution—Noncommercial—Share Alike

✖ | Sharing without ATTRIBUTION
✔ | Remix Culture allowed
✖ | Commercial Use
✖ | Free Cultural Works
✖ | Meets Open Definition