

Extruder calibration jigs

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Summary

Some extruders like the LGX Lite need a tool to calibrate their extrusion length. These jigs make the task easier.

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I found that my new LGX Lite is 6% off the required extrusion length and needed a calibration.

The usual process is like this:

- 1.) measure 120mm of filament from the extruder inlet and mark or cut the position
- 2.) slowly(!) extrude 100mm, i.e. G1 E100 F60
- 3.) check if 20mm are left at the inlet - if the length is different, you need to readjust according to the results.

These jigs allow to measure the required length and to check for precise result. One jig is 120mm, the second is 20mm, and the small one also got a slit to allow measurements.

With the LGX Lite, my procedure is like follow:

- 1.) I put the lever to the left position, pull out all the filament.

- 2.) I put it through the 120mm jig, and reinsert into the extruder
- 3.) I put the lever to the middle position
- 4.) I extrude 10mm to make sure the backlash in the extruder is compensated
- 5.) Now I cut the filament flush at the top of the jig
- 6.) At regular extrusion temp, I extrude 100mm with the command "G1 E100 F120" (this takes almost a minute, but it's more accurate than faster extrusion).
- 7.) Now I use the short jig to check if the filament is flush with the top edge

The pictures show a draft version of the tool. The final version has a small anchor at the bottom to make alignment easier.

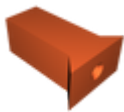
- Update 13.07.22: Re-added a version of the 20mm jig with a slot so you can see the length of filament from the front.

Model files

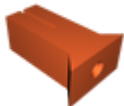
jig-120mm.stl



jig-20mm.stl



jig-20mm-with-slot.stl



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