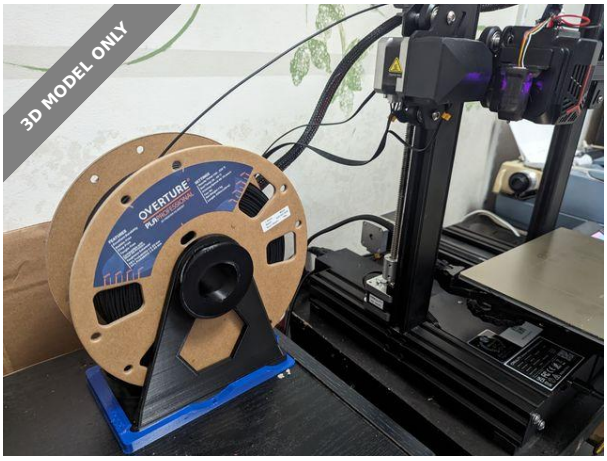


Filament Roller and Storage with Locking Baseplate

Savage

VIEW IN BROWSER

updated 16. 10. 2023 | published 16. 10. 2023

Summary

Interchangeable filament spool roller with locking baseplate. Compatible with standard and XL rolls. Read description.

3D Printers > Other Printer Parts & Upgrades

WHAT IS IT?

This is a multi-part filament spool roller with a baseplate to lock the roller in place. I attempted to solve two problems in one ‘product’ by providing a design that allows you to both store and use your filament while never having to put it on different racks or rollers. Simply load your roll onto this, and move the whole thing from your shelf to your printer.

This eliminates the need for expensive specialty shelving for your filament rolls, these rollers store your filament neatly on regular bookshelves.

Grab the roll you need, snap it into place at your printer, and you're done.

ADDITIONAL HARDWARE NEEDED

- (OPTIONAL) M3 screws/bolts
- (OPTIONAL) Glue

MY PRINT SETTINGS

- I printed base and roller with 0.2mm layer height, 20% infill, with standard PLA. You might need support for the base, depending on how good your printer does with bridges.
- I printed the locking base mount with 0.2mm layer height, 20% infill, with PETG. I used PETG to make the locking tab less stiff. PLA should still be usable if you don't have PETG.

If you would like to use the locking baseplate, you will also need to print one of those. If you have a printer with a side-loading extruder, such as an Ender 3 (v2/v2 Neo), I recommend removing your printer's current filament roller and mounting the locking baseplate next to your printer. That way, the entire spool and roller can be moved and locked into place when needed.

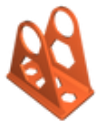
INSTRUCTIONS

1. Slice and print one stand and one roller for each roll of filament you want to use.
2. If you would like to use the locking baseplate system, print one of those for each printer you own.
3. Decide where the locking baseplate should go by placing a base with a spool in it, and seeing what position works best for your printer.
4. Glue/screw down the locking baseplate.

UPDATES

- Version 2.1:
  - Chamfers on the bottom of the base arms have been altered to reduce friction with cardboard spools. (My Overture3D spools were rubbing the chamfers and causing the whole spool to not turn easily)
- Version 2.0:
  - The arms are no longer separate pieces. They were too unstable. Instead, despite the increased print time, they're much better if printed as one part with the base.
  - End cap should fit more snugly.

Model files



standard-base-v21.obj

For standard filament roles, ~70mm thick.

standard-roller.obj

For the standard base. (Spools up to ~70mm width)

end-cap-v20.obj

Compatible with both the standard roller and the XL roller

standard-locking-baseplate.obj

For use with the standard base.

xl-base-v21.obj

For use with larger filament rolls, ~140mm thick.

xl-roller.obj

For larger spools. (Spools up to ~140mm width)

xl-locking-baseplate.obj

For use with either the standard base OR the XL Base.

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