

The Spool Spool Filament Holder



patternsindesign

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Summary

A filament holder that uses the weight of a spool of filament to provide a stable base.

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Welcome to the Spool Spool Holder Project!

It seems like I am always on the hunt for a better spool holder. Spool holders integrated with the printer tend to be an afterthought, many of the printed choices are either for specific use cases or suffer significant design issues, and commercial choices are often just copies of existing designs.

I prefer tabletop spool holders for convenience but I quickly realized that one of the big problems for tabletop stands is mass. Many stands are just plastic frames which are too light and just slide around on the surface they sit on or worse - they can tip over if there is any resistance. Looking around my workshop one afternoon I realized I had a bunch of 1kg weights just laying around - partially used filament rolls. This project is the current version of my filament spool holder based on using the resources in my shop to solve this seemingly simple problem.

The main goals of the project are simplicity and flexibility. The design is modular - you can use it with one or two spools, with or without the optional bowden tube holder, and other options can be added in the future.

Printing Guidance

- I hate supports. The only part which requires supports for this print is the spindle, all other parts are support free.
- I am currently printing this in PETG for stiffness, but PLA should work fine. My recommendation is PETG.
- Recommended infills -
 - Spindle - 100% (required)
 - Base, column, and carriages - 50% (recommended minimum)
 - Bowden arm - 15% has worked fine for me
- Printing orientations
 - Spindle - Prints on either end, enable supports
 - Base and carriage have obvious bottoms
 - The column and bowden arms have been designed for printing flexibility. Based on your needs they can be printed “vertically” or “horizontally” for flexibility.

Last Thoughts

The bearings used are generic 608 skateboard bearings and the fittings are generic PC4-M10 press fittings. Here are links to the ones I used.

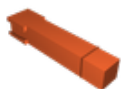
<https://www.amazon.com/gp/product/B01IB81IHG>

<https://www.amazon.com/gp/product/B07R7PR72H>

Future plans -

- Threads for the bowden tube holder
- A base designed to use the weight of two rolls of filament
- A longer column option
- A few better pics

Model files



spool-spool-column-v1.stl



spool-spool-carriage-v1.stl



spool-spool-spindle-v1.stl



spool-spool-base-v1.stl



spool-spool-bowden-arm-v1.stl

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