



Spool winder v3



Luke's 3D

[VIEW IN BROWSER](#)

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Summary

3rd successor to the Spool winder

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Tags: [extension](#) [extensioncord](#) [filament](#) [plastymladec](#) [pm](#)
[spool](#) [wind](#) [winder](#) [3dprinted](#) [diy](#) [handle](#) [upcycling](#)
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Hi guys,

if you wonder what to do with empty spools here's my 3rd iteration of Spool winder (see previous version here: <https://www.prusaprinters.org/prints/5114-spool-extension-cord-winder>). This winder works with empty 1kg spools from PM (Plasty Mladeč) and can hold up to 20m of cord. Max.outer plug diameter is 46,5 mm.

EDIT: I added .STEP files for all components, feel free to modify!

These are the goals I aimed to achieve:

- fully 3D printable
- all parts can be 3D printed on 22x22 cm bed
- sturdy and functional design
- use as few supports as possible

- duplicate as many parts as possible
- nice design

Improvements

- new hexagonal rods which are printed horizontally to improve stiffness
- reduced number of parts including removed shaft washer and adapter cap
- revised design of socket adapter ensures better printability, less used material providing same functionality as before
- new polygonal design
- easier to print shaft screw

Bill of materials

- 3x Rod
- 6x Nut
- 4x Side
- 2x Bottom
- 1x Adapter screw
- 1x Adapter
- 1x Socket spool adapter
- 1x Socket ring
- 1x Shaft bolt
- 1x Shaft nut
- 1x Shaft washer
- 1x Handle
- 1x Bearing

Printing instructions

I recommend using PETG and I will mention only some parts here as other are trivial:

- Rod - print horizontally with supports
- Side, Bottom - unfortunately you have to use supports
- Adapter - print horizontally with supports
- Shaft bolt - print horizontally with supports

Assembly

Firstly, disassemble the spool. You can have a look at how I do this in v1 assembly video:

<https://youtu.be/VXvynGzOpbQ>

Next take Adapter, Socket ring and Socket spool adapter and put them together. Take two sides and click them around Socket ring. Now you can

place the Bottom in place, insert three rods and secure them using Nuts. Take knife or saw and cut away section so that wire can run through the center of the spool. On the other half of spool screw on Spool adapter using Spool adapter bolt. Put Shaft bolt through, place Shaft washer and Bearing on top. Handle comes next and once in place secure it with Shaft nut. Now you can marry the two spool halves together, align Sides and Rods and click the spool into place.

And you're done!

See assembly tutorial here:

https://youtu.be/brvriV_PVi8

If you like this upcycling project you might also like my [Bird feeder](#) upcycling project:



Support









You can support me by liking and downloading my projects or you can [donate here](#) using PayPal.

Also, you can check out my [Instagram page](#) and [Instagram meme page](#) for more great stuff!

Cheers!

Luke

Model files

	STL	15 files
	side.stl	
	bottom.stl	
	rod.stl	
	nut.stl	
	handle.stl	
	bearing.stl	
	socket-ring.stl	



shaft-washer.stl



adapter-screw.stl



spool-adapter-bolt.stl



socket-spool-adapter.stl



shaft-nut.stl



shaft-bolt.stl



spool-adapter.stl

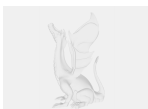


adapter.stl



STEP

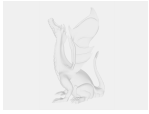
15 files



side.step



bottom.step



rod.step



nut.step



handle.step



bearing.step



socket-ring.step



adapter.step



spool-adapter-bolt.step



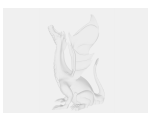
shaft-bolt.step



shaft-washer.step



adapter-screw.step



shaft-nut.step



spool-adapter.step



socket-spool-adapter.step

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