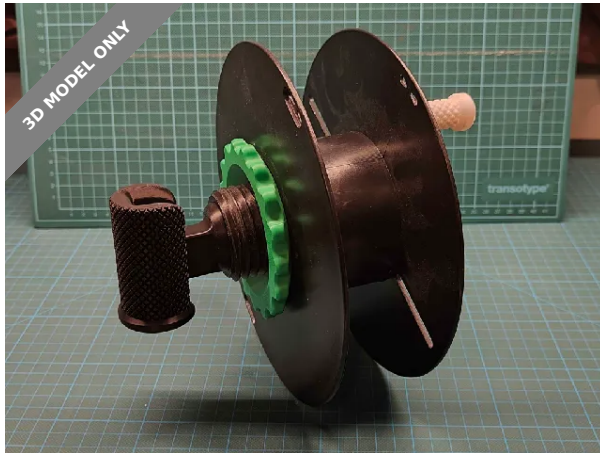




Winder tool for reusing empty filament spools

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[VIEW IN BROWSER](#)

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Summary

A low-profile winding tool to assist in reusing empty filament spools that folds together when not in use

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A winding tool for reusing empty filament spools that folds together when not in use. Fits most* filament spools with a 52-80mm central bore. Tested with eSun, Sunlu, Real filament, Bambu labs and a few no-name brand spools.

The winder is self-centering: the chamfered handscrew centers itself on spools that are bigger than 52mm in diameter. The crank arm locks the telescoping handgrip in place when stowed. The crank arm part uses the side of the filament spool as a leaf spring to lock it in open and closed position with a satisfying click.

The folding grip has a lanyard loop that fits carabiner clips for attaching the spool to something if desired.

Assembly requires no hardware, although the crank handle pin may be replaced with an M4 screw or bolt.

All parts are in recommended printing positions. The threaded and knurled sections do not require supports, but some overhangs do.

[Here's a video](#) of the winder tool in action to demonstrate how the parts fit

together, stow and deploy.

ASSEMBLY:

1. Print all parts. You need one of each part.
2. Slide the folding grip base inside the spool core so that the thin section projects out of the threaded end of the core.
3. Align the cones inside the folding grip with the grooves on the folding grip base and snap the parts together. This requires a moderate amount of force, I recommend using a vise, pliers, etc. to assist with this.

IMPORTANT: DO NOT ASSEMBLE THE “FOLDING GRIP” TO “FOLDING GRIP BASE” BEFORE INSERTING THE FOLDING ARM BASE INSIDE THE “SPOOL CORE”. The geometry of the parts locks them in place within the spool core and they cannot be disassembled without damaging the parts.

4. Align the cones on the crank arm with the grooves inside the notched area on the spool core and snap the parts together. This requires a moderate amount of force too. Ensure that you snap the crank arm in the right orientation, or it will not fold properly.
5. Attach the crank handle to the crank arm, either with the printable pin (friction fit, this will require some fitting and force) or with an M4 screw or bolt.

6. Slip the assembled device into an empty filament spool and screw the handscrew in place on the spool core

7. The device is now complete! Spool away to your heart's content.

*some no-name brand spools with a “recessed” bore were a little tricky, but still worked.

Model files



Filament spool winder

7 files



spool-core.3mf



handscrew.3mf



folding-grip-base.3mf



folding-grip-handle.3mf



crank-arm.3mf



crank-handle.3mf



crank-handle-no-hardware-pin.3mf

☐ Can be replaced with an M4 bolt

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