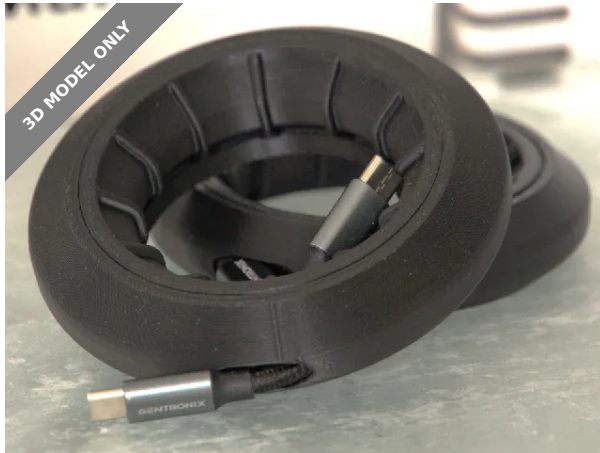




Next Gen USB (and more) Cable Winder / Organizer (Print-in-Place, Multiple Sizes, Stackable)



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[VIEW IN BROWSER](#)

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Summary

An entirely new approach to cable winding, especially for high-end cables. Multiple sizes. Stacking possible.

[Household](#) > [Office](#)

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Based on the experience with my previous remixed [Advanced Stackable Print-in-Place USB Cable Winder](#), I found out central winding not to be optimal when it comes to thicker cables, especially modern high-quality USB-C cables.

Thus, here is an entirely new “Donut-Style” approach for a cable winder, consisting of two concentric rings encapsulating the cable in its natural winding. The slim design fits perfectly in your backpack as on your desktop. The cable can be pulled out to the outside and winded so that an appropriate end stands out inside.

I have included various sizes in Ø60 mm, Ø80 mm and Ø100 mm with openings for smaller USB-C (and Micro-USB) plugs and also for larger USB-A plugs. The latter are especially useful for devices with fixed USB cables and for oversized USB-C.

Separate stacking rings and baseplates allow for stacking of all versions of the same diameter. Thus, you can neatly sort your cable mess on the desktop (see my photo as an example).

Current updates

2025-03-01 Added parametric Fusion 360 source and opened license to allow for remixes.

2025-10-18 Added parametric Fusion 360 source with new cutout design. It also includes the winding ring.

For improved winding I have created a handle:

A guide for sizes

The diameter is always the outer diameter of the flat top/bottom part and corresponds roughly to the average diameter of the cable spool. The total outer diameter also depends on the height and is a bit larger. This allows for stacking of all winders of the same diameter class.

1 m of cable takes exactly 4 turns in the Ø80 mm versions. So you can in advance measure on your cable what size to print. Leave some room to not jam the cable!

The 80×20 version is considered the “base” and holds well a braided 1 m USB-C cable with Ø5 mm. The 80×24 catches up to 3 m of Ø4 mm cable. For thinner cables, go downwards respectively.

The Ø60 mm versions are suitable and sufficient for thinner non-braided USB cables, fiber optics etc.

Plug cutouts

The cutouts for the plugs are extruded tangentially and thus not symmetric. This means there is only one correct orientation for winding, and the cutout is effectively a bit wider than depicted.

Cutout sizes:

- USB-C 7×10.5 mm²
- USB-A 8×14 mm²
- Fiber 9×14 mm²
- HDMI 11×20 mm²

Printing

Print in Place (both rings together) with standard slicer setup (0.4 mm nozzle, 0.2 mm layers, 2 perimeters, 15% infill). It is tempting to print with more perimeters, but experience shows then prints to fail. Reduced print temperature (-10 °C) might be helpful. Caution: **0.6 mm nozzles do not work!**

Usually no supports are needed. Depending on the bridging capability of your printer and the cutout size organic supports for the cutouts may be helpful.

PLA+ and PLA are recommended materials due to their high stiffness. More flexible materials (PETG, ASA, ABS) may be problematic and may lead to disassembly of the rings, especially for the large sizes. **Use at your own risk.**

The design uses a 0.35 mm gap as a compromise between good printability and functionality. Should you experience issues with separation of the two parts, you might use the Fusion 360 model and try adjusting the gap down to 0.3 mm or even 0.25 mm. But this will only work on very well-tuned printers!

Remixing

For remixes simply use the provided user parameters:

▼ <i>fx</i> Benutzerparameter					
☆ Benutzerparameter	radius	mm	40 mm	40.00	
☆ Benutzerparameter	height	mm	20 mm	20.00	
☆ Benutzerparameter	gap	mm	0.35 mm	0.35	
☆ Benutzerparameter	plug_height	mm	7 mm	7.00	
☆ Benutzerparameter	plug_width	mm	10.5 mm	10.50	

I suggest sticking to the standard diameters (60, 80, 100, 120 mm).

Spin-off designs

Just contact me for other sizes.

Model files



Fusion 360 Source

2 files



cable-winder-next-gen.f3d

☐ Parametric Source



cable-winder-next-gen-new-cutout.f3d

☐ Parametric Source



60mm USB-C

3 files



cable-winder-next-gen-60x16.stl



cable-winder-next-gen-60x18.stl



cable-winder-next-gen-60x20.stl



80mm USB-C

6 files



cable-winder-next-gen-80x16.stl



cable-winder-next-gen-80x18.stl



cable-winder-next-gen-80x20.stl



cable-winder-next-gen-80x22.stl



cable-winder-next-gen-80x24.stl



cable-winder-next-gen-80x26.stl



100mm USB-C

3 files



cable-winder-next-gen-100x24.stl



cable-winder-next-gen-100x26.stl



cable-winder-next-gen-100x28.stl



60mm USB-A

3 files



cable-winder-next-gen-usb-a-60x16.stl



cable-winder-next-gen-usb-a-60x18.stl



cable-winder-next-gen-usb-a-60x20.stl



80mm USB-A

5 files



cable-winder-next-gen-usb-a-80x18.stl



cable-winder-next-gen-usb-a-80x20.stl



cable-winder-next-gen-usb-a-80x22.stl



cable-winder-next-gen-usb-a-80x24.stl



cable-winder-next-gen-usb-a-80x26.stl



100mm USB-A

3 files



cable-winder-next-gen-usb-a-100x24.stl



cable-winder-next-gen-usb-a-100x26.stl



cable-winder-next-gen-usb-a-100x28.stl



60mm Fiber

3 files



cable-winder-next-gen-fiber-60x16.stl



cable-winder-next-gen-fiber-60x18.stl



cable-winder-next-gen-fiber-60x20.stl



80mm Fiber

3 files



cable-winder-next-gen-fiber-80x16.stl



cable-winder-next-gen-fiber-80x18.stl



cable-winder-next-gen-fiber-80x20.stl



120mm HDMI and Ethernet

2 files



cable-winder-next-gen-hdmi-120x26.stl

☐ Use stiff material (PLA)



cable-winder-next-gen-hdmi-120x30.stl

☐ Use stiff material (PLA)



Stacking

8 files



stacking-ring-60.stl



base-plate-60.stl



stacking-ring-80.stl



base-plate-80.stl



stacking-ring-100.stl



base-plate-100.stl



stacking-ring-120.stl



base-plate-120.stl

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