



MK4 - Universal direct spool holder with ball bearings



nice_3d

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Summary

The new filament spool holder with ball bearings for up to 3 (4) spools.

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Hello all.

Have you ever been annoyed by the filament spool holder on the MK4?
This can now be an end.

I would like to introduce the MK4 Universal Spool Holder. The MK4-USH has space for up to three coils filament of 1kg each or up to 4 small spools.

For great flexibility I have created the parts for different rods and ball bearing sizes. So I can use what you have at home.

For this project you only need 1-2 rods and some ball bearings (4 per spool) and 2 worm screws.

The height of the printer including filament rolls (195-197mm diameter) and short arms is 550mm. For a housing you need about 15mm more space in height.

Infill: 15-20%, Top/Button/shelf: 4, Support: no

What you need for this:

1 Main rod in 8mm or 10mm (length is about 285mm or shorter if you like)

4 Ball bearings type 608 (22x8x7mm) or 6200 (30x10x9mm or 30x10x10mm) per spool

Optional:

1 slider rod in 5mm, 6mm or 8mm (length is about 230mm or shorter if you like) For 5mm rod with bearings you need 2 ball bearings (10mmx5mmx4mm).

2 worm screws (one for each stopper)

Hints:

- The holders are for spools up to 240mm diameter. The short version is for spools up to 215mm diameter.
- The spool mounts are for inner diameters from 40 to 79mm.
- The stoppers do not have an internal thread, so simply screw the screw directly into the plastic.
- The stoppers can be placed to the right or left of the main brackets.
- The spacers have a length of 2mm. If this is not enough, print them in the desired length.
- The spacers should be mounted on the outside of the spools so that the filament rolls are not braked and can rotate freely.
- For the main shaft you can use any material that is stable enough. (steel, aluminum, carbon, wood, glass, etc.). The slider rod should be very smooth and create as little friction as possible.
- If you do not use small filament spools, the slider parts are not mandatory!
- In the case that you have no 6200 ball bearings at home, you can use the stopper as a short-term centering aid.
- All fits are tight but with PETG and the MK4 this is not a problem. It fits ;-)

Model files



mk4-spoolholder-10mm_v6.stl



mk4-spoolholder-short_10mm-rod-v3.stl



mk4-spoolholder-8mm_v2.stl



mk4-spoolholder-short_8mm-rod-v2.stl



mk4-universal-spool-bearing_for_10mm_rs6200_v2.stl



mk4-universal-spool-bearing_for_8mm_rs608_v2.stl



mk4-spacer-10mm-v1.stl



mk4-spacer-8mm-v1.stl



mk4-stopper_10mm-v1.stl



mk4-stopper_8mm-v1.stl



mk4-slider-mount-5mm-rod_v3.stl



mk4-slider-mount-6mm-rod_v2.stl



mk4-slider-mount-8mm-rod_v1.stl



mk4-slider-mount-5mmrod-with-10mm-bearings_v1.stl

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