



PRUSAMENT Advent Calendar

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Summary

Turn your old PRUSAMENT spools into a advent calendar, where you can place Christmas treats.



31.57 hrs



8 pcs



0.20 mm
0.30 mm



0.40 mm



PLA
PET



329 g



Prusa
MK3/S/S+

[Household](#) > [Other House Equipment](#)

Tags: [vase](#) [prusament](#) [christmas](#) [vasemode](#) [spiralvase](#)
[spiralvasemode](#) [nosupport](#) [merrychristmas](#) [nosupportneeded](#)
[adventcalendar](#) [advent](#) [nosupportsneeded](#) [nosupports](#)

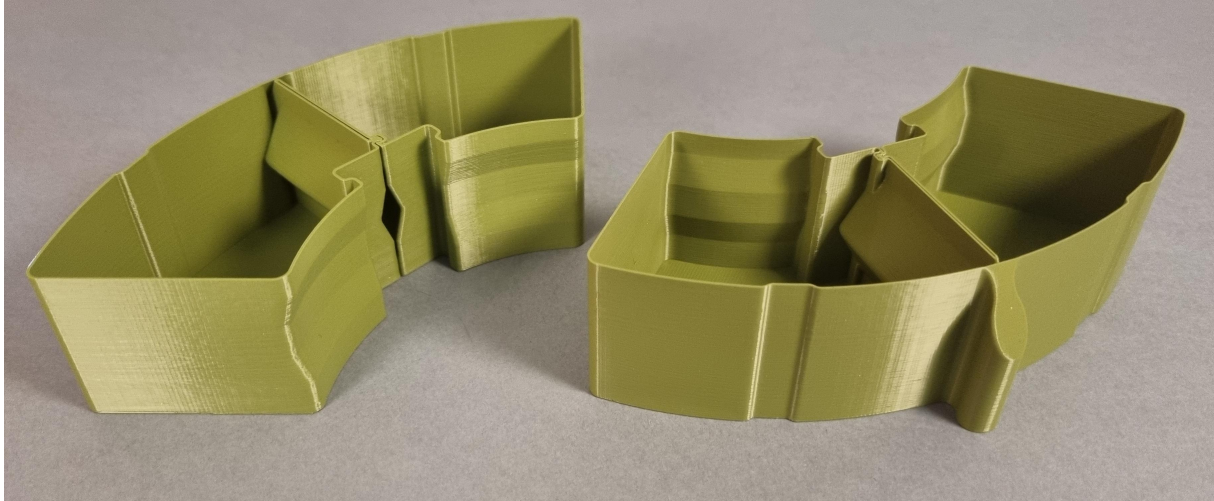
The description is from my original MK3 Sorting tower Printing

If you just want to get started printing, just take the G-Codes and get cracking. Just make sure to use the right filament either PLA or PETG. if you want to know what settings to use read this following section.

All parts should be printed in the orientation of the STL.

Drawers

The drawers are printed in PLA but can be printed in any material. I have printed the drawers with 0.2mm layers but higher or lower layers would also be fine.



The drawers are designed to be printed as spiral vase.










Vertical shells

- Perimeters:   1  (minimum)
- Spiral vase:   ☒

Recommended object thin wall thickness for layer height 0.30 and 2 lines: 1.14 mm

And to make the parts a bit more rigid you can preferably change the extrusion width to 0.65 or print with a 0.6mm nozzle.

Extrusion width

| | | | |
|----------------------------|---|--------|---------|
| ● Default extrusion width: |  | • 0.45 | mm or % |
| ● First layer: |  | • 0.42 | mm or % |
| ● Perimeters: |  | • 0.45 | mm or % |
| ● External perimeters: |   | • 0.65 | mm or % |
| ● Infill: |  | • 0.45 | mm or % |
| ● Solid infill: |  | • 0.45 | mm or % |
| ● Top solid infill: |  | • 0.4 | mm or % |
| ● Support material: |  | • 0.35 | mm or % |

If you want to print more than one draw at the time you can print with no top layers, one perimeter and no infill. when not printing vase mode there

will be a seam, but you can use the seam painting tool to make sure this seam will be on the backside of the draw.

Vertical shells

- **Perimeters:** 1 (minimum)
- **Spiral vase:** • ☐

Recommended object thin wall thickness for layer height 0.20 and 2 lines: 0.86 mm

Horizontal shells

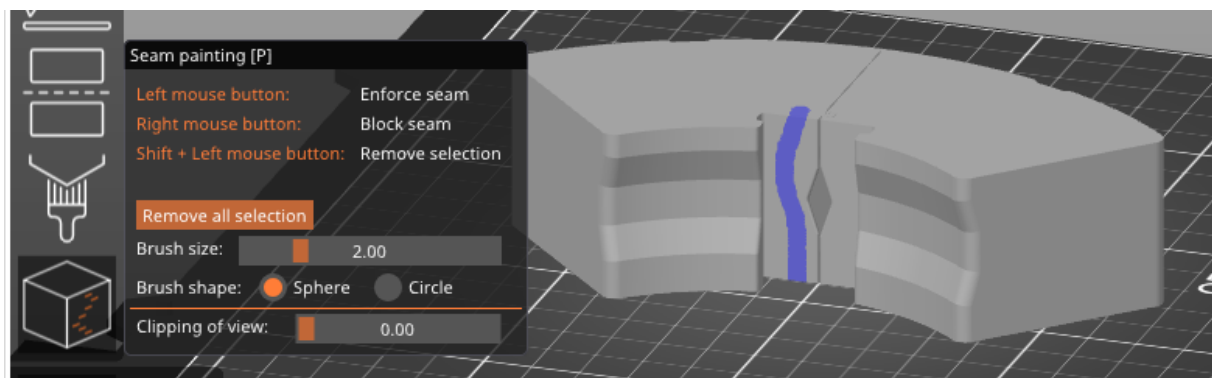
- **Solid layers:** **Top:** 0 **Bottom:** • 3
- **Minimum shell thickness:** **Top:** • 0.6 mm **Bottom:** • 0.5 mm

Top is open.

Bottom shell is 0.6 mm thick for layer height 0.2 mm. Minimum bottom shell thickness is 0.5 mm.

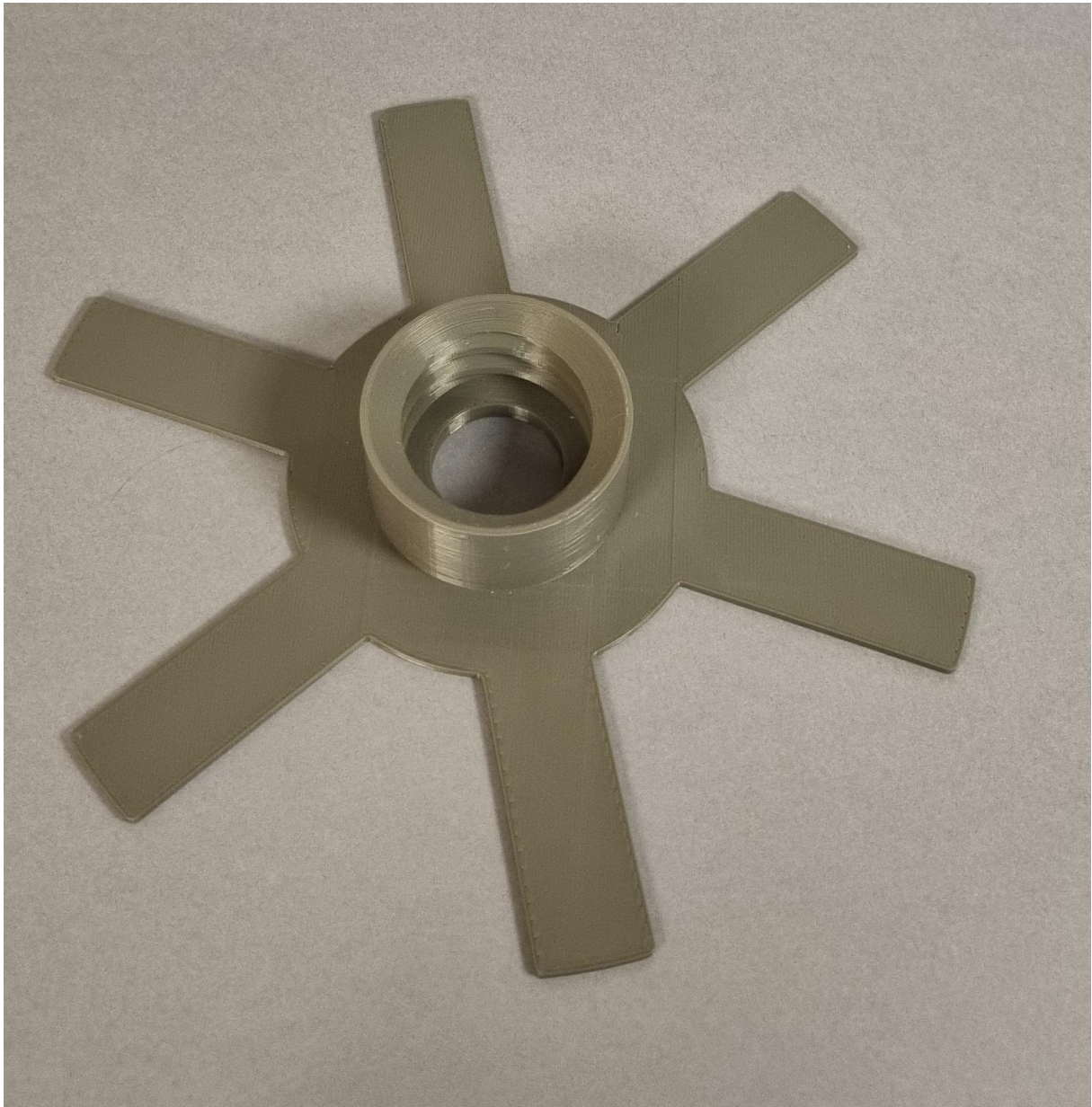
Infill

- **Fill density:** 0% %
- **Fill pattern:** Gyroid
- **Length of the infill anchor:** • 2.5 mm or %
- **Maximum length of the infill anchor:** • 12 mm or %
- **Top fill pattern:** Monotonic
- **Bottom fill pattern:** Monotonic



Bottom

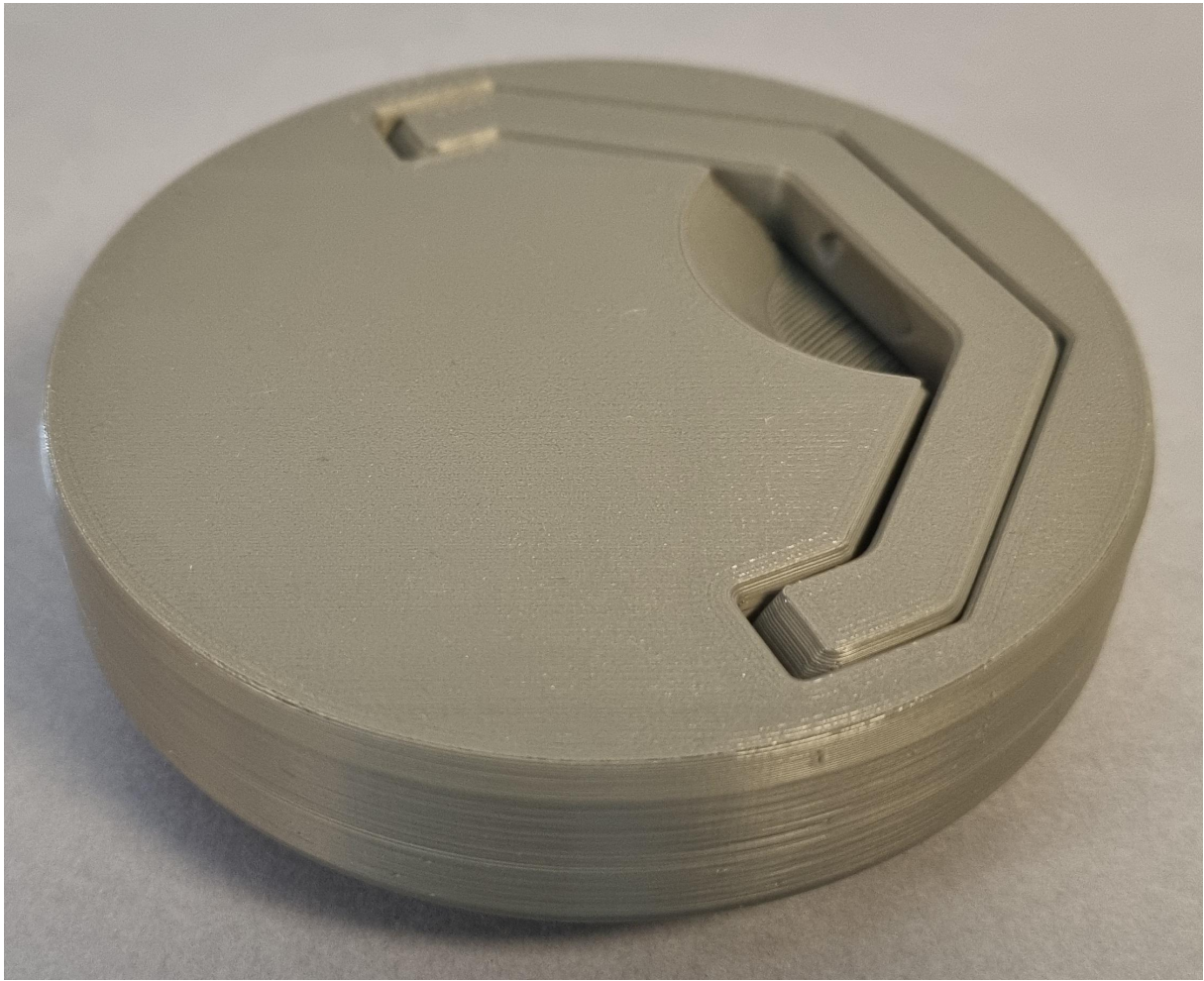
The Bottom is printed in PETG but can alternatively also be printed in other filaments.



Nothing special about the bottom piece, so it can be printed with a variety of settings. I am however working on making a bottom piece printed in vase mode, so that might come as an update later. Both G-Code and .3mf files can be downloaded (PST MK3_Bottom & Handle Top)

Handle Top

The handle top is the top piece of the tower with an integrated handle, I have printed it in PETG to ensure strength.

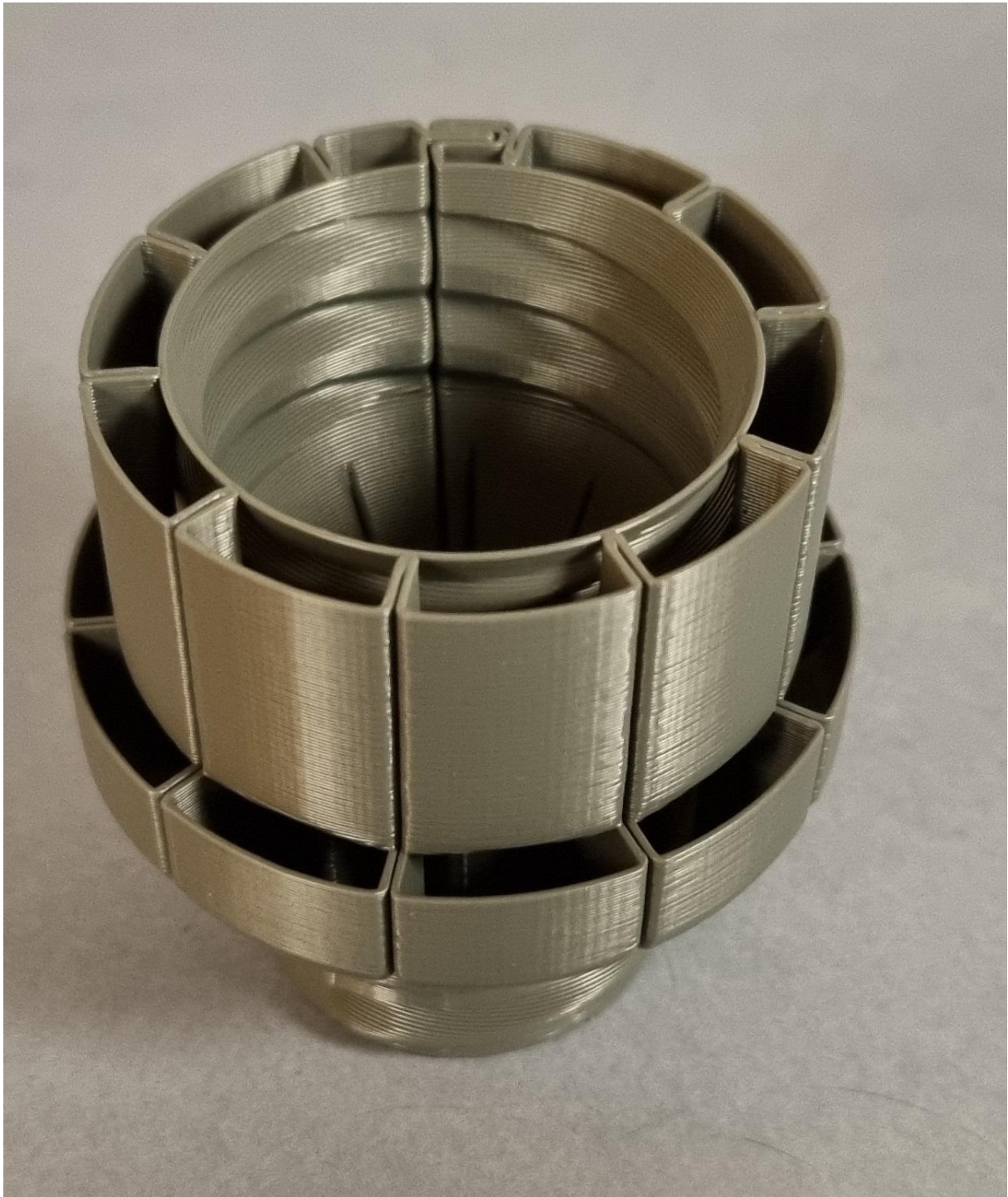


Just like the bottom the top piece is printed with standard PETG settings and can be downloaded as G-Code and .3mf files (PST MK3_Bottom & Handle Top).

when the top is printed break free the handle and you are ready to go.

Connector

The connector is what keeps the different layers in their place, as is back bone of the whole tower. I recommend printing this in PETG or something at least as strong. As a major difference between this new version and the older versions of the tower, the connectors are designed for being printed as spiral vase in order to reduce the amount of filament used.

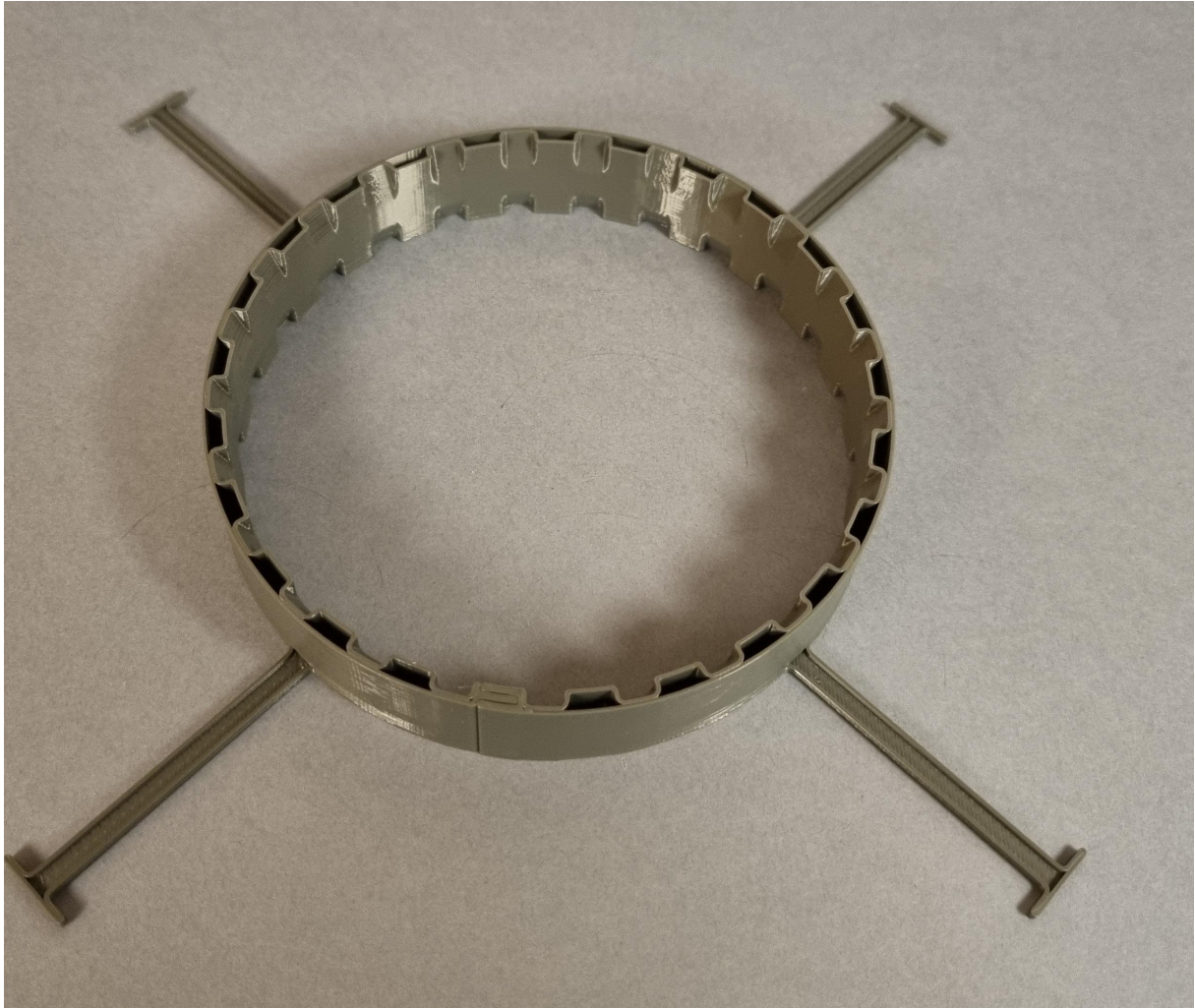


The print settings for the connectors are the same as it was demonstrated for the drawers, the only difference is the material. just like the drawers they are printed with an extrusion width of 0.65mm to make the piece rigid. If you wan to print more then one at the time that can also be done as described in the drawers section.

You can download premade G-Code and .3mf files ([link](#))

Drawer Guide

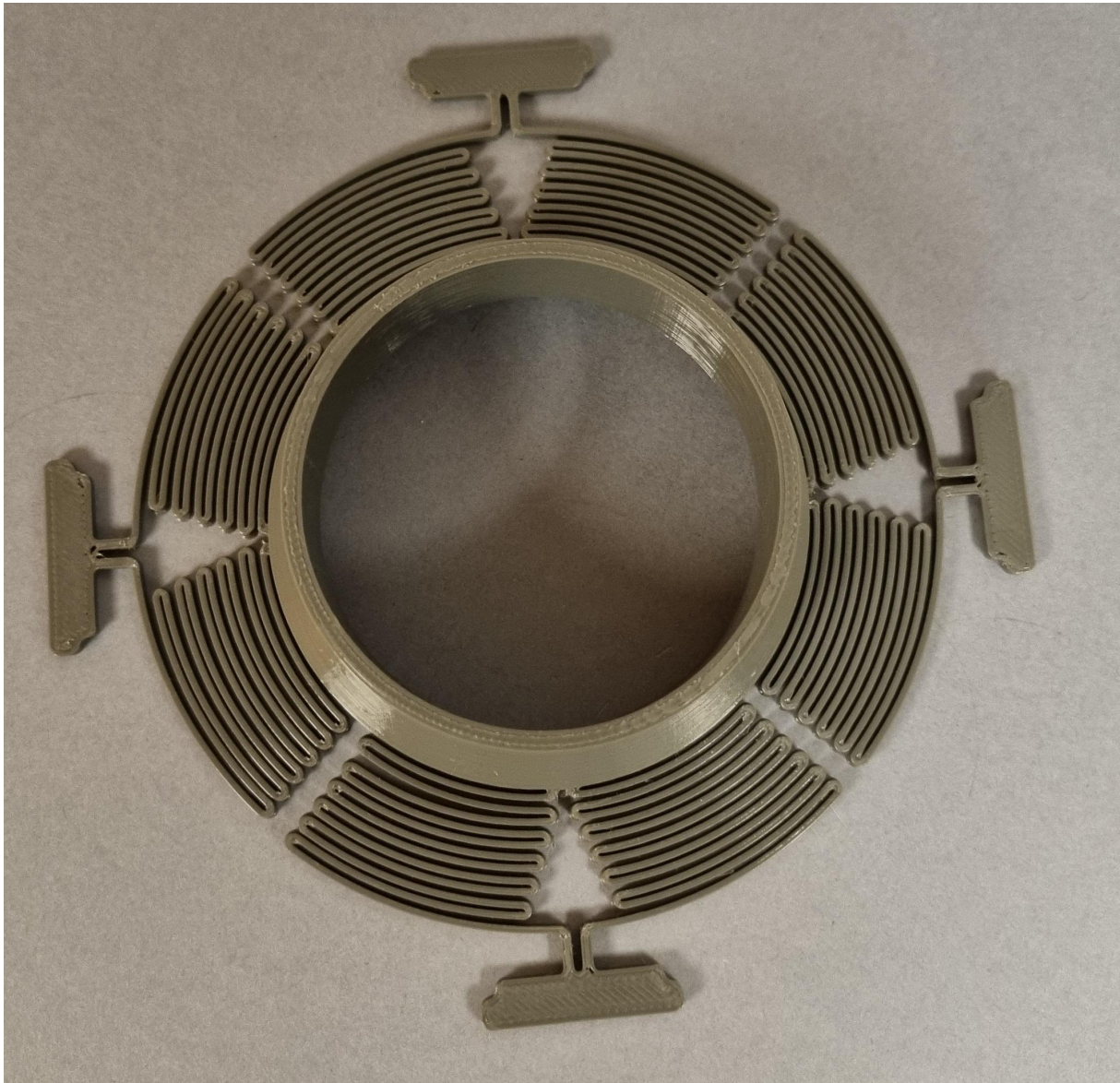
A completely new feature for the sorting tower, which sets a boundary for how far the drawers can be pulled out, this is mainly to protect the springs from being overstretched. I recommend printing these in PETG or something stronger.



The piece is printed as spiral vase in order to save filament. it is printed with the same settings as the connector and also share .3mf files with that. There is also premade G-Code to download.

Spring

Last but certainly not least, the spring. The spring is optional but I recommend using it as it makes sure your drawers are always closed and your tower looks amazing. The spring should be printed in PETG or something else which is both strong and flexible.



When printing the spring the most important thing is that the thin spring pieces are massive, so it needs to be printed with at least 2 perimeters. Otherwise it is a simple print which can be made with the premade G-Code or the .3mf files.

be careful when taking it off the print plate so you don't break or overstretch the springs. and if any of the springs are stuck together, carefully cut them free with a knife.

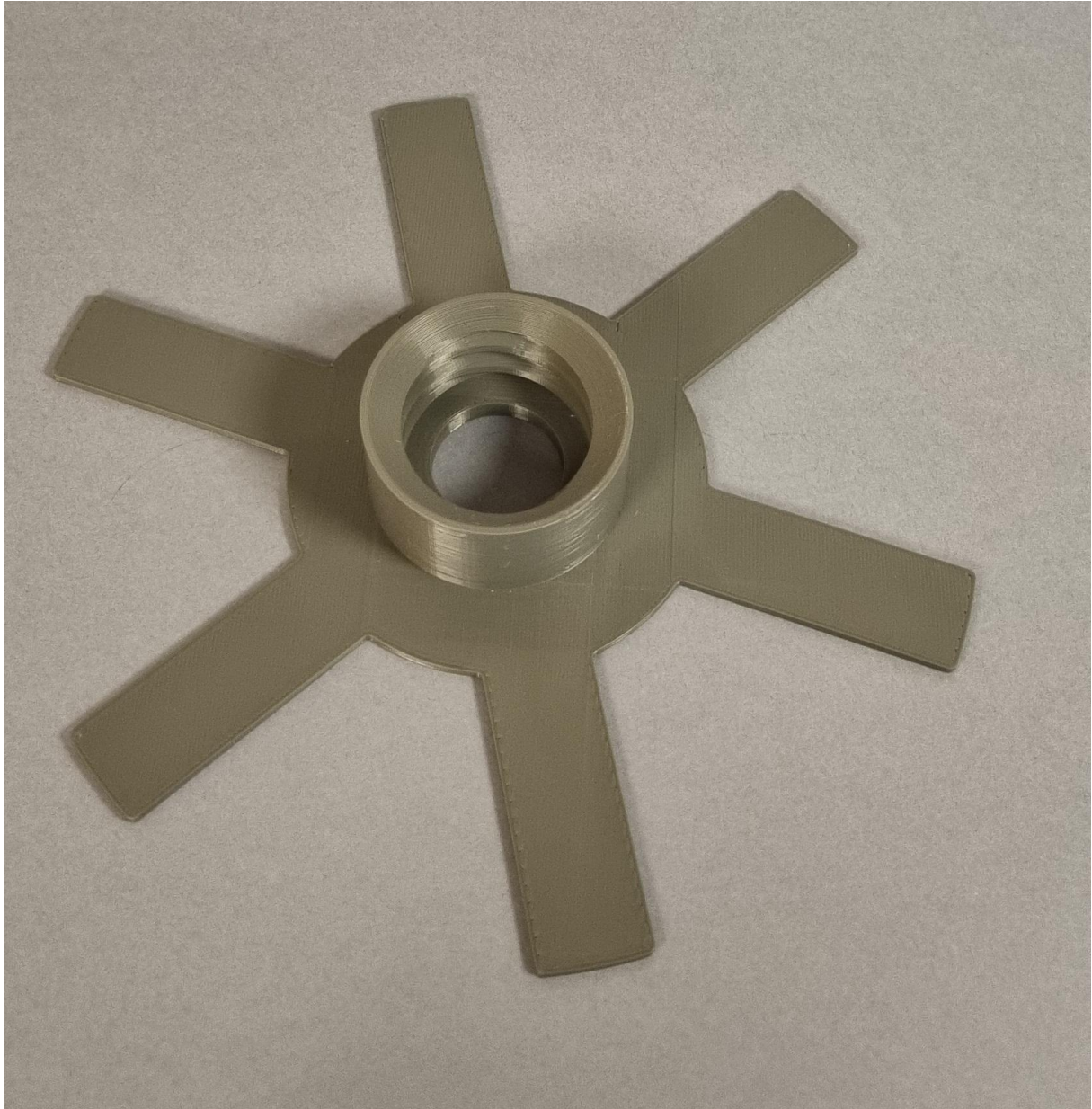
Spools

When your PRUSAMENT spool is empty, you can pull the two plastic pieces out of the center cardboard piece. it might be an advantage to pull a little and then turn the spool a bit and then pull again, to loosen it up all the way around.

Assembly

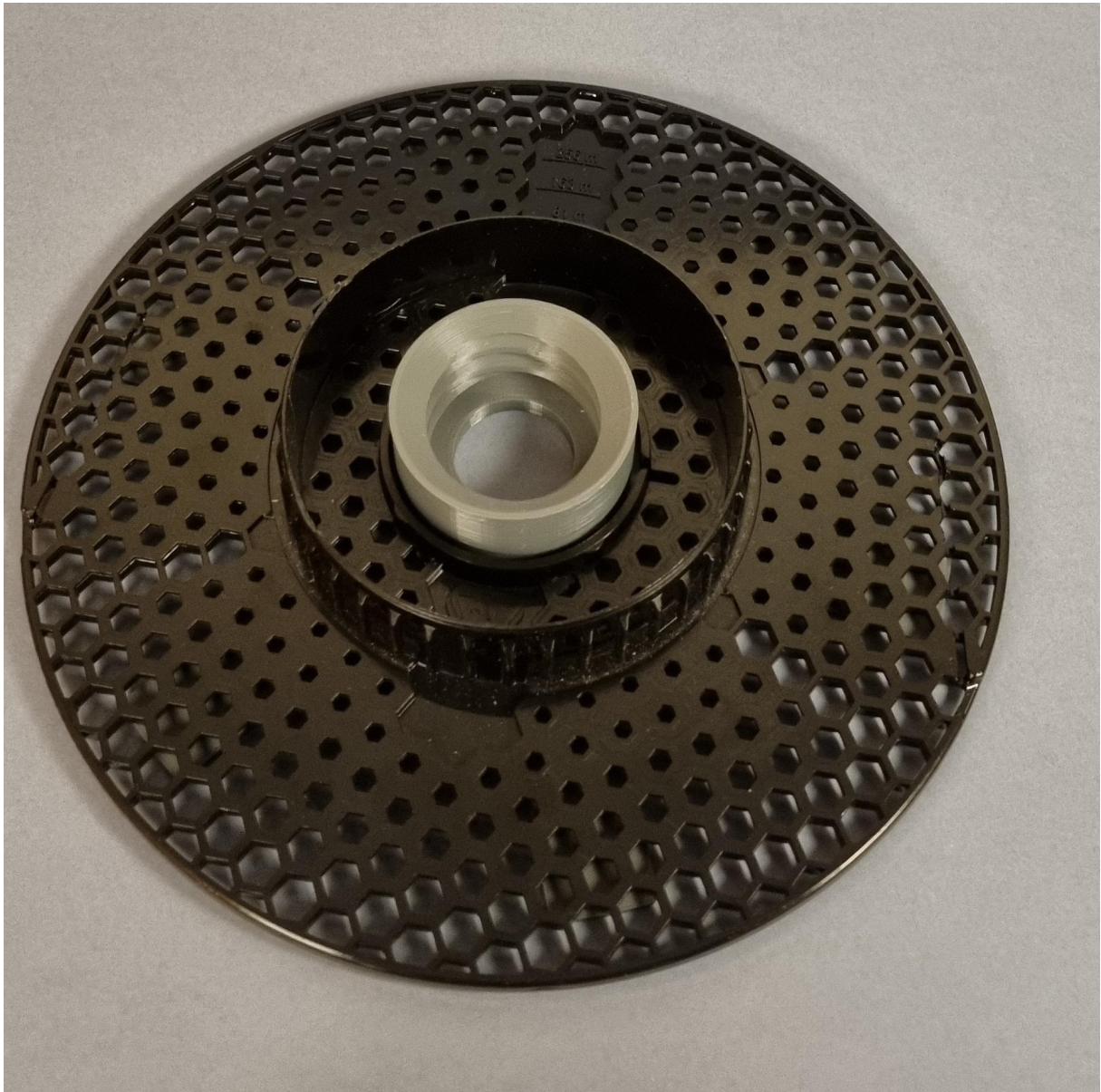
Step 1:

The bottom Piece



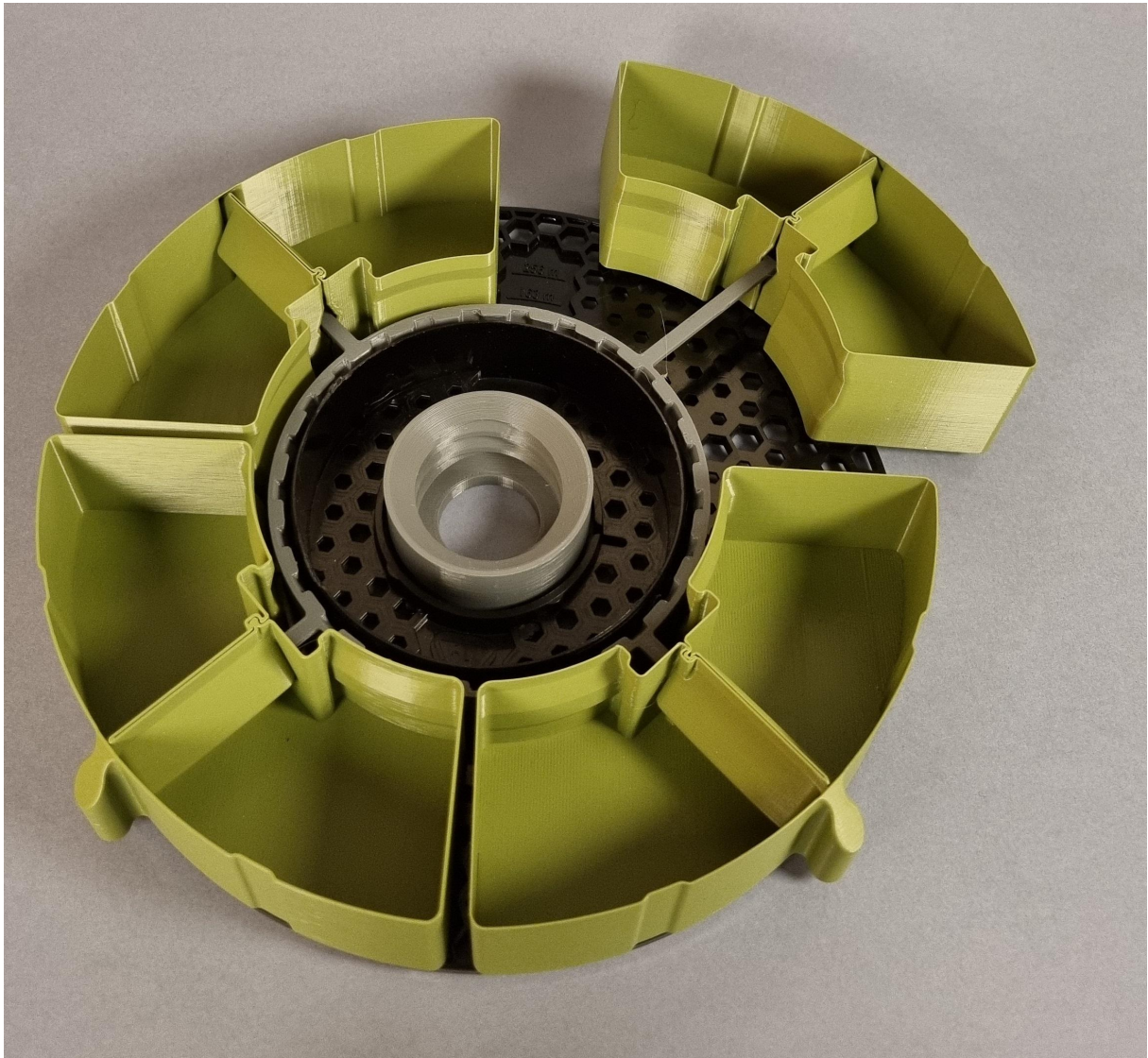
Step 2:

Place a PRUSAMENT spool side on top of the bottom piece.



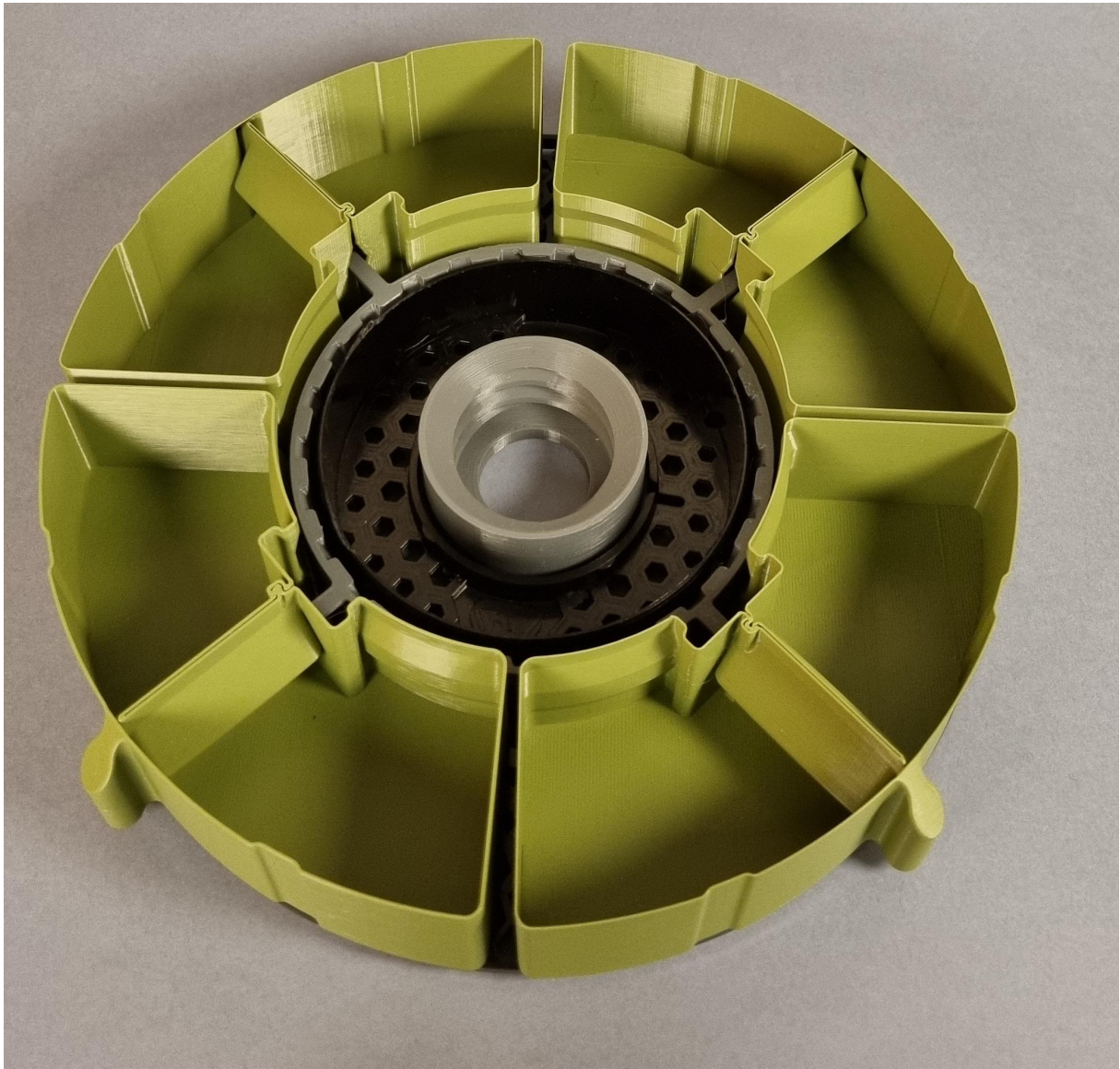
Step 3:

Take the draw guide and mount 4 drawers onto it. The drawers are mounted by turning them 90 degrees relative to the guide and put the guide into the hole in the back of the drawer.



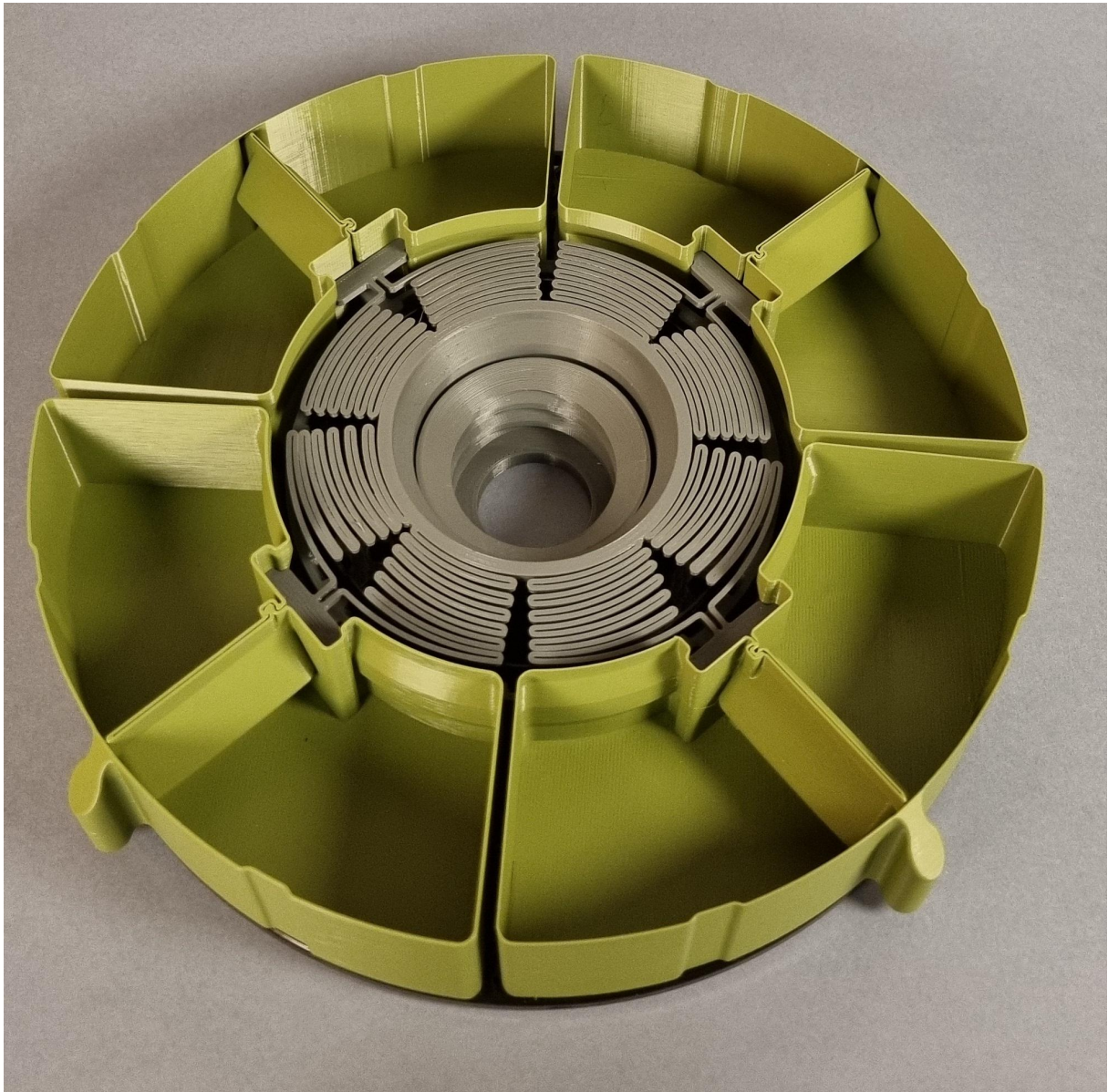
Step 4:

Put the draw guide on top of the spool side with the bottom of the draw guide pointing up.



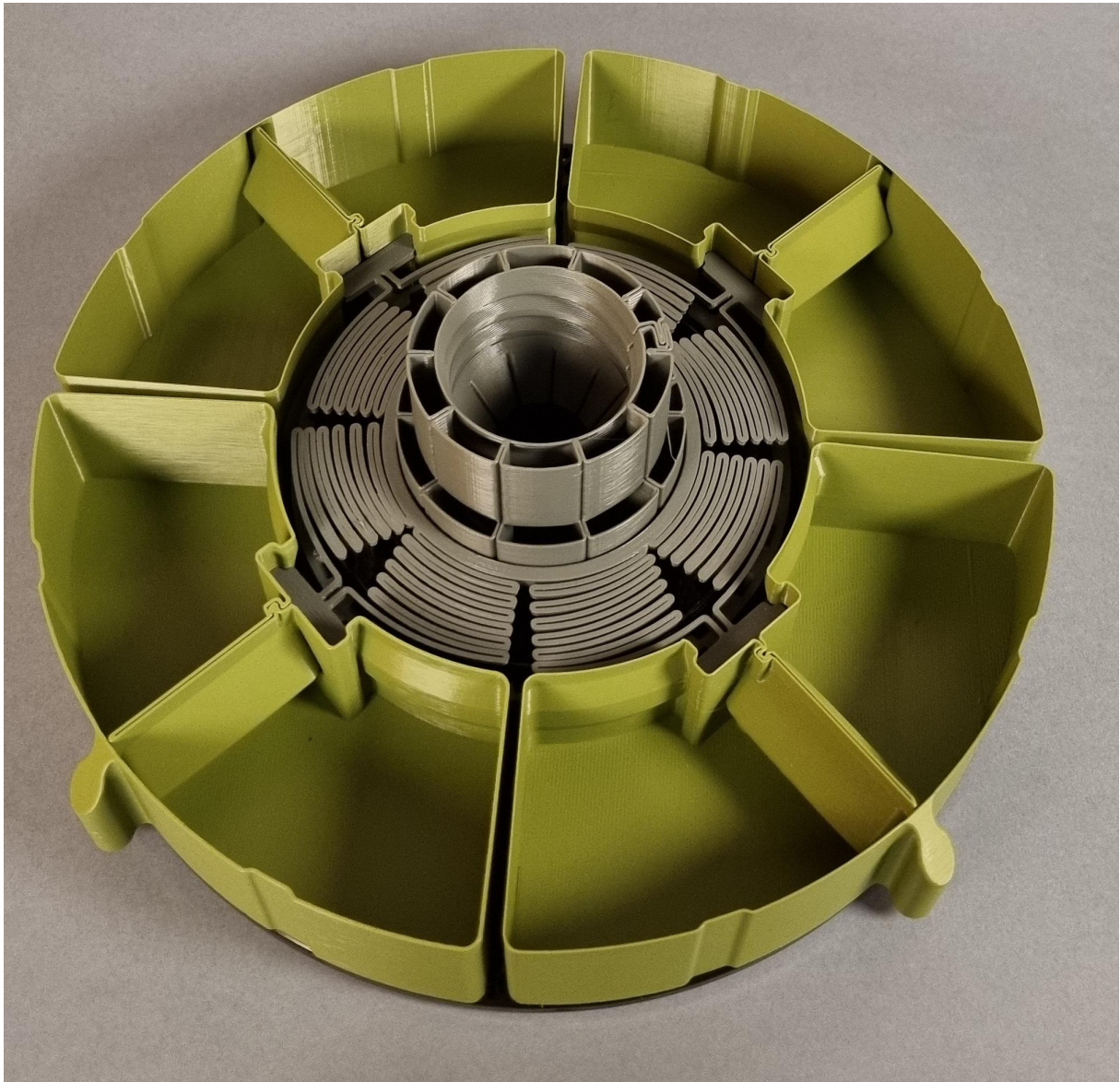
Step 5:

Place the spring in the center with the flat side pointing up. Take the end of each spring and slide it down into the backside of the drawers.



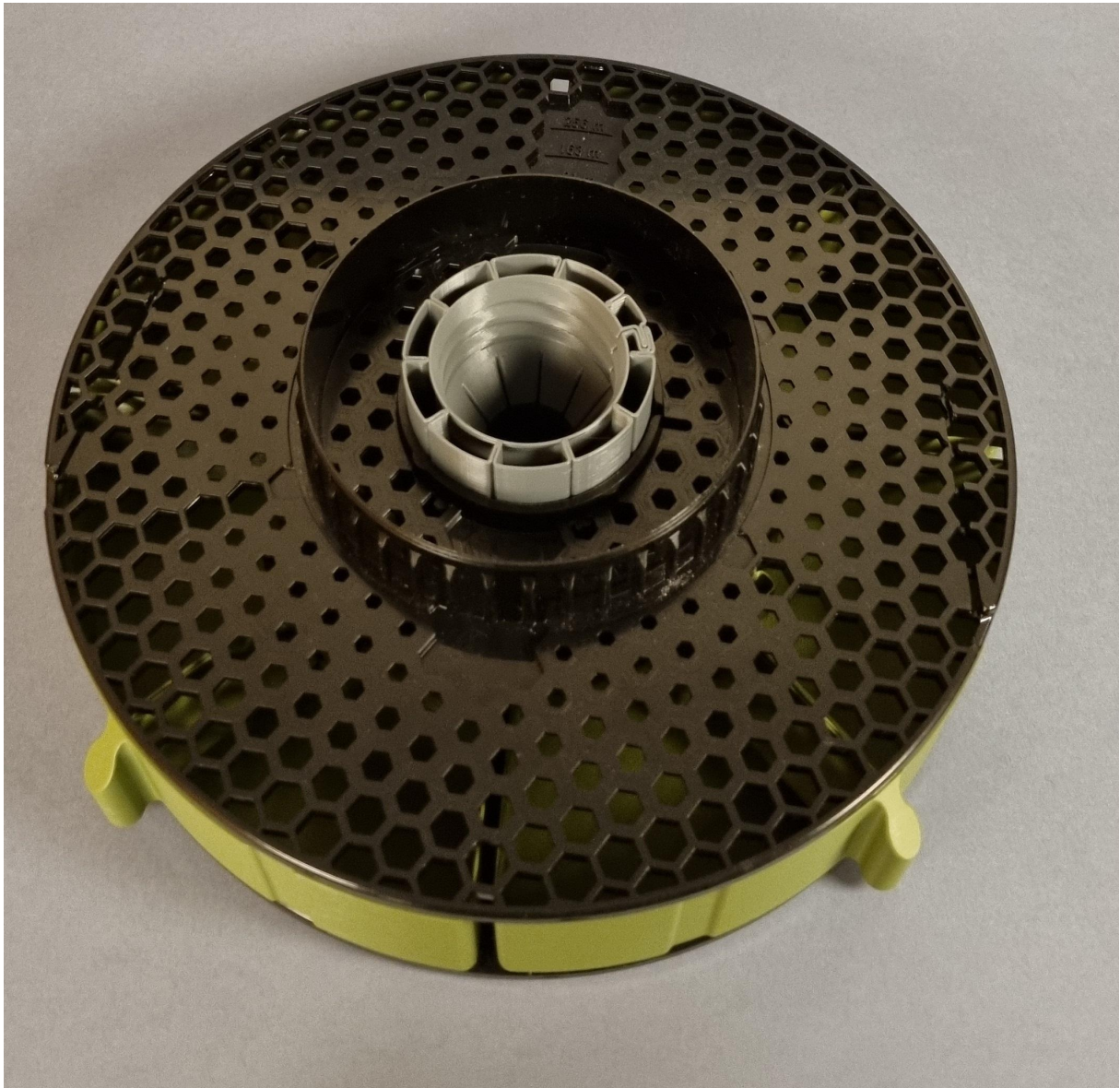
Step 6:

Take a Connector and screw it into the thread in the middle of the tower.



Step 7:

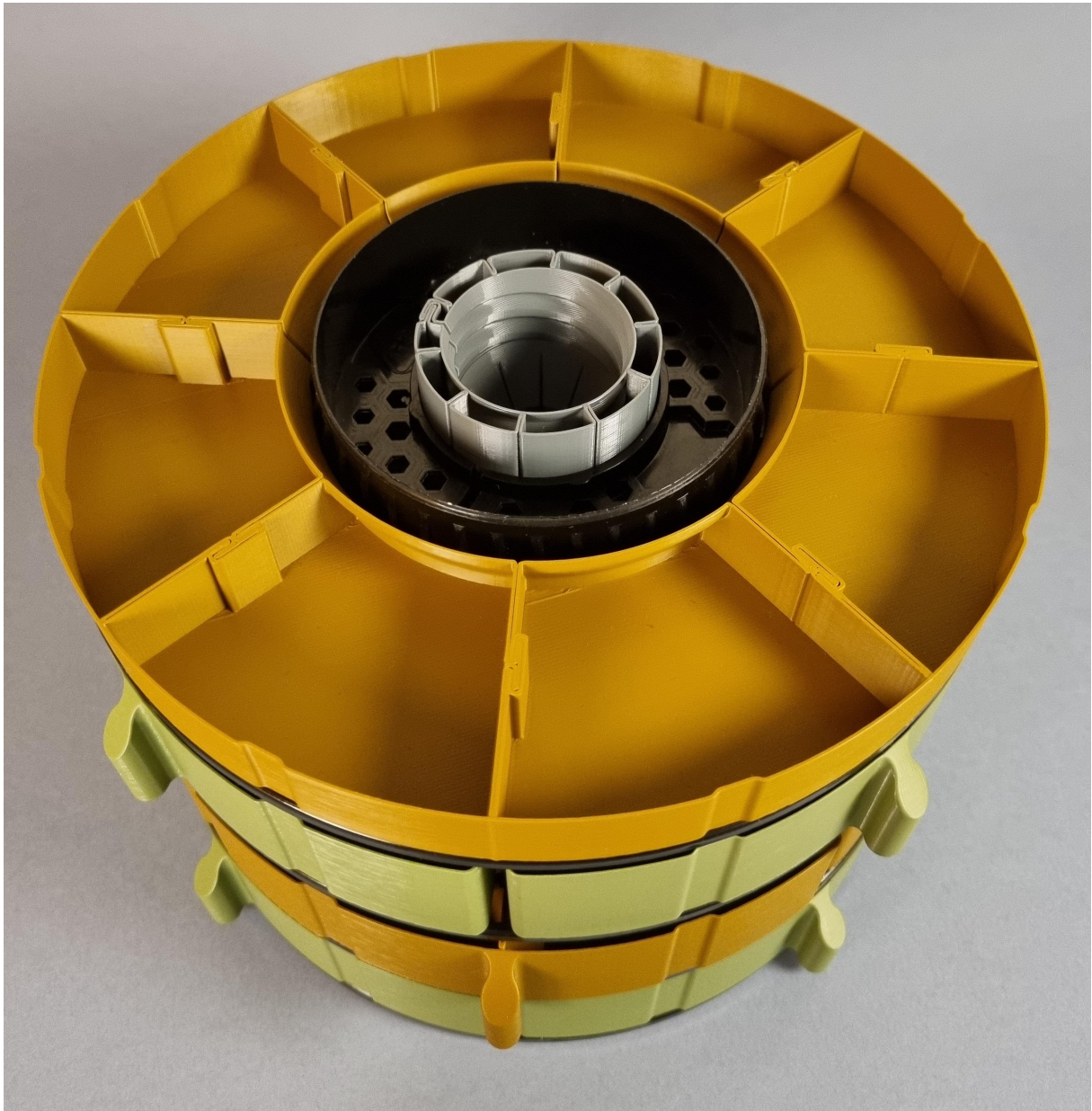
Place another Spool side on top of the connector.



Step 8:

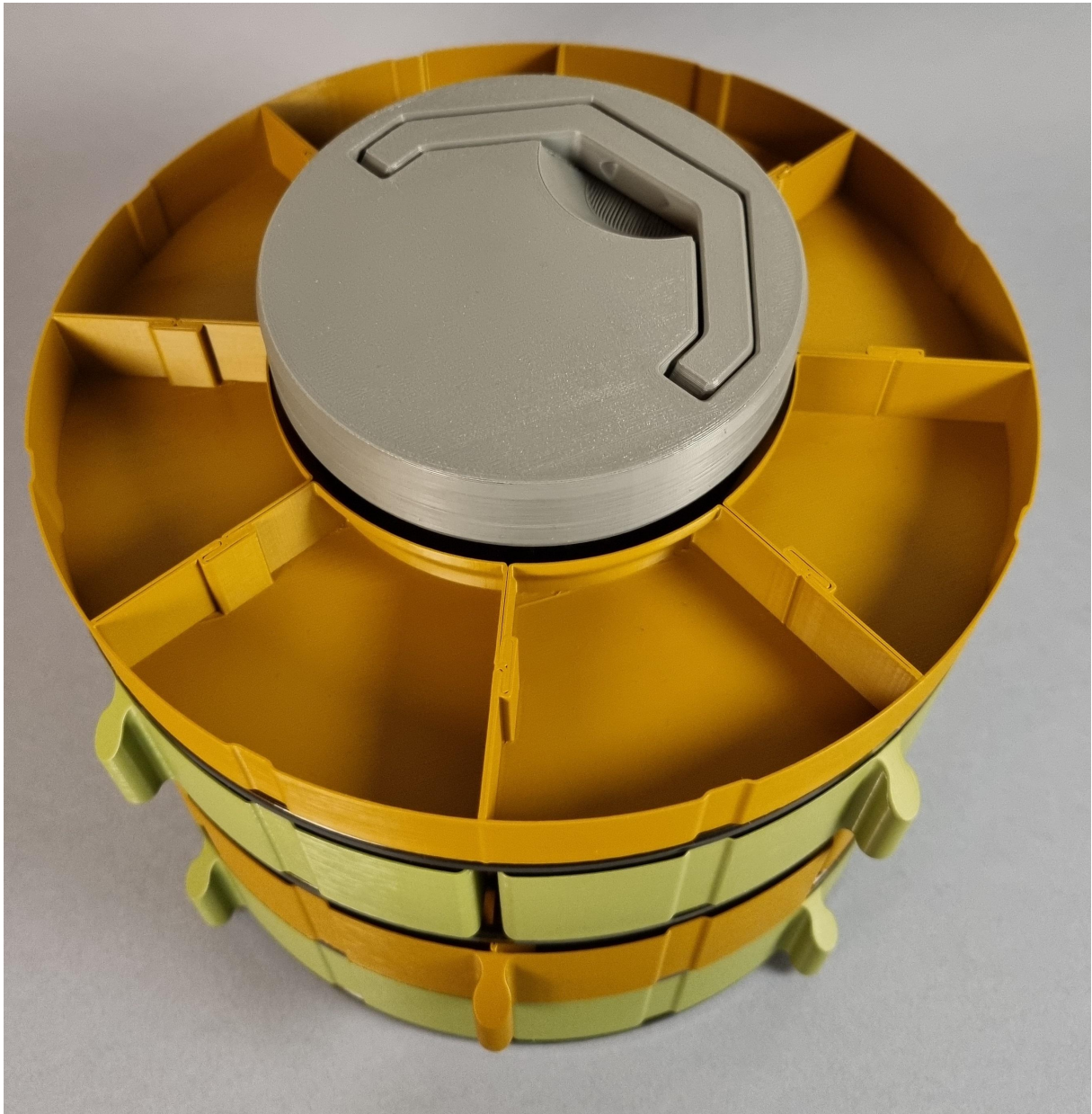
if you want to add more layers go back to step 3 and repeat. if not continue here.

put the top layer onto the spool side.



Step 9:

Take the top and screw into the thread in the middle of the tower.



You did it, you made a Upcycled advent calendar!!!

Please share your results so I can see how colorful you can make them.

And don't forget to check out my Instagram: **fredslund3d**

Good Luck & Happy Printing!

Model files



draw_1516.stl



draw_34.stl



draw_910.stl



draw_56.stl



draw_2324.stl



draw_1112.stl



draw_1718.stl



draw_12.stl



draw_1314.stl



draw_78.stl



draw_1920.stl



draw_2122.stl



pst-mk3_-handle-top.stl



pst-mk3_bottom.stl



pst-mk3_connector_medium.stl



pst-mk3_draw-guide.stl



pst-mk3_spring.stl

Print files



draw_1-8_02mm_pla_mk3s_6h9m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.20 mm ⌚ 6.15 hrs ⚖️ 64 g 🖨️ Prusa MK3/S/S+



draw_9-16_02mm_pla_mk3s_6h10m.gcode

🌀 PLA 🌀 0.40 mm ≡ 0.20 mm ⌚ 6.17 hrs ⚖️ 64 g 🖨️ Prusa MK3/S/S+



draw_17-24_02mm_pla_mk3s_6h10m.gcode

🌀 PLA 📏 0.40 mm 📐 0.20 mm ⌚ 6.17 hrs ⚖️ 64 g 📄 Prusa MK3/S/S+



bottom_02mm_petg_mk3s_3h11m.gcode

🌀 PET 📏 0.40 mm 📐 0.20 mm ⌚ 3.19 hrs ⚖️ 33 g 📄 Prusa MK3/S/S+



connector_medium_03mm_petg_mk3s_55m.gcode

🌀 PET 📏 0.40 mm 📐 0.30 mm ⌚ 0.92 hrs ⚖️ 18 g 📄 Prusa MK3/S/S+



draw-guide_02mm_petg_mk3s_1h5m.gcode

🌀 PET 📏 0.40 mm 📐 0.20 mm ⌚ 1.09 hrs ⚖️ 11 g 📄 Prusa MK3/S/S+



handle-top_02mm_petg_mk3s_5h39m.gcode

🌀 PET 📏 0.40 mm 📐 0.20 mm ⌚ 5.65 hrs ⚖️ 57 g 📄 Prusa MK3/S/S+



spring_02mm_petg_mk3s_2h14m.gcode

🌀 PET 📏 0.40 mm 📐 0.20 mm ⌚ 2.23 hrs ⚖️ 18 g 📄 Prusa MK3/S/S+

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