



Filament dryer extension for Elechomes Dehydrator

 **tinfoilsoldier**

[VIEW IN BROWSER](#)

updated 13. 1. 2021 | published 13. 1. 2021

Summary

This is an extension for the Elechomes 6 tray food dehydrator from Amazon so that filament spools can be dried without...

[3D Printers](#) > [Accessories](#)

Tags: [dryer](#) [dry](#) [extension](#) [dehydrator](#) [fooddehydrator](#) [filamentdehydrator](#) [elechomes](#)

This is an extension for the Elechomes 6 tray food dehydrator from Amazon so that filament spools can be dried without breaking the oem trays.

I changed Haprog's Fusion360 file to shrink it to the size of my dehydrator, and parameterized it some to make it easier to adjust.

Outer diameter of lower ring: 268mm
Outer diameter of upper ring: 263mm
Width of rings: 2.2mm

I printed it with the existing lower lip height of 10mm, but bumped the upper lip to 16mm. I think I will bump lower_lip_height to 15mm if I print it again but a perfect seal isn't really required.

Two 1KG spools fit if they are "regular" width(<68mm), so there shouldn't be any problems with even the widest of spools to at least get 1 in there. The extension meshes well with the Elechomes trays, so they should stack nicely as well.

4 identical pieces slide together to make a hoop, with a lower ring to fit into the base or tray, and a smaller top ring to lock into the lid or tray above it.

I might be using it upside-down from its original design, but it works perfectly for the Elechomes with the smaller "ring" on top, which is also the orientation for printing.

Print instructions

I also recommend printing with a brim, I used 8mm because it made a solid brim between the 4 parts. Using transparent PETG I could see some release from the print bed 1-2mm out from the ends of the part, but it stayed securely in place and was easy to clean up with a deburring tool

You should print 2 of the test pieces to make sure your printer/filament settings let them slide together correctly, if not you can increase the "slot_clearance" parameter, but I didn't need to.

Haprog's connector design is great, and the slide pin works fine without support, it started in mid-air but came together fine on all 4 for me without needing cleanup.

Here are the most relevant PrusaSlicer settings that I used, but

Layer height: 0.3 mm

- First layer height: 0.2 mm
- Perimeters: 2
- Solid layers top: 6
- Solid layers bottom: 3
- Detect thin walls: enabled
- Fill density: 15%
- Fill pattern: Retcilinear
- Skirt loops: 0
- Brim width: 8 mm
- Supports: no
- Extrusion width: 0.42 mm (all)

Speeds:

- Perimeters: 80
- Small perimeters: 25

- External perimeters: 45
- Infill: 80
- Solid infill: 80
- Top solid infill: 50
- Gap fill: 50
- Travel: 180
- First layer speed: 20

Extrusion Widths:

- 0.4mm nozzle
- Default Extrusion Width: 0.5mm
- First Layer: 0.42mm
- Perimeters: 0.5mm
- External Perimeters: 0.45mm
- Infill: 0.6mm
- Infill/Perimeters Overlap: 30%

Filament Settings:

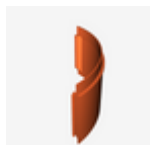
- Nozzle: 240C
- Bed: First Layer 85C, Other 90C
- Max Volumetric Speed: 6mm³/s

This remix is based on



Filament dryer extension for SilverCrest dehydrator
by Haprog

Model files



tray_quarter.stl



test-piece.stl



elechome_dehydrator_tray_extension.f3d

[Find source .stl files on Thingiverse.com](#)

License

This work is licensed under a
Creative Commons (4.0 International License)



Attribution

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition