

Simple 6" Inline Fan Filter Housing (Experimental)



Carbon

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Summary

Press-on filter adapter for 6" inline fans.

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

Tags: [sla](#) [hydroponics](#) [ventilation](#) [growbox](#)

Final Edit (19 Dec 22): Added .step files for the model. :) Enjoy

Edit (24 Mar 22): Added v3 of the adapter. I made the tolerances a little too loose on the last one, so I brought the inner diameter of the adapter back down. I also removed the slits as they're ultimately not needed. v2 will remain downloadable.

Edit (23 Mar 22): Revised the adapter design and loosened the tolerances. It was a little too small on the inner diameter for the mating surface to the fan. Also integrated the mesh into the adapter so there were fewer models required to print. Extended the lip of the filter holder by 2mm.

The moment I started printing with my new Anycubic Photon Mono X 6K, I knew I wouldn't be able to live with the odor of the resin. I quickly placed both the printer and Wash and Cure Plus in my old Creality enclosure (large size) placed on its side. Even with the enclosure, I needed to vent the fumes/odors, so using an old portable AC window vent adapter, I purchased a 6" inline fan and vent directly outside. Now, I don't want to

simply vent with no concern for others, so I have made this filter housing. I have not printed it myself as of yet, but will be doing so over the next few days.

Fan used: <https://amzn.to/37RxzRz>

Filters it's designed for (still considering other options): <https://amzn.to/3txTINf>

BOM

- 3x M3x12mm screws
- 1x 6" inline fan
- 1x 7.25" Activated carbon filter
- 1x "Filter Holder" prints
- 1x "Adapter" print
- Foil HVAC Tape

Printing

1. Print Adapter with mesh side down. Settings: 3 walls, 10% infill, 0.2mm layer height
2. Print Filter Holder with the flat side down. Settings: 3 walls, 0.2 layer height

Assembly

1. Place filter in recessed portion of first holder.
2. Align screw holes of the filter assembly with the adapter, slip M3 screws through filter holders and slowly thread into the adapter. **Do NOT Overtorque.** Just make it snug.

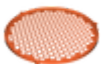
Potential Updates

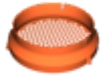
I will update this model accordingly, depending on how well it performs.

Category: Other

Model files

filterholder_v2.stl

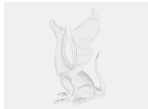




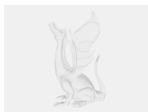
adapter_v2.stl



adapter_v3.stl



adapter_v2_integratedmesh.step



filterholder_v2.step

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

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