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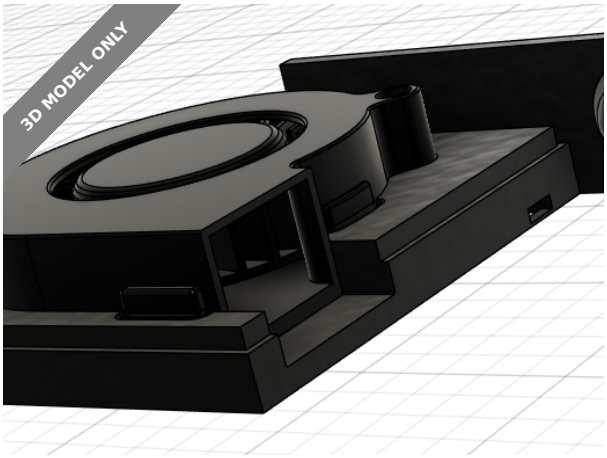

Voron V2 5015 bed fans for 2020 extrusion

rchamp

VIEW IN BROWSER

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Summary

I needed some some new bed fan mounts and didn't like what was already out there, so I made these.

3D Printers > Voron Parts & Upgrades

Since I'm moving to a hinged bed on my V2 350, the center gap will be occupied by the handle and my nevermore micro will no longer be of use. I wanted something to mount to the outside edges of the center bed extrusions, so they lift with the bed, so Ellis' fan mounts were out. I found another one from Datura on Printables, but was just a bracket with a fan slapped on it and the pegs were a hair too short for me to fully ‘snap’ in. I wanted something a little more aesthetic. I use a Nevermore3D Stealthmax for filtration now, so I didn't bother with AKInferno's “The Filter”, though it is a sexy design (and worth it if you need some carbon filtration).

So, I came up with this. I wish i could ‘stealthify’ it, but my CAD skills haven't figured out how to facet things yet. It snugly fits standard 5015 fans. I tested with a Formbot kit 5015 i had laying around as well as a Winsinn 5015 i had laying around collecting dust. They weren't adequate for me to use in toolheads, but are fine to use as bed fans for circulation, until they crap out, and then I'll replace with higher quality fans. both friction fit snugly with no issue.

At first, I tried to get creative with maybe some screws in the both, or even magnets to hold the top, but the little shadow line alignment allows the cover to also just friction fit. A little finesse and maybe a small screw driver pry and it pops apart. you can leave the whole fan shroud on, no need to remove the top, or snip the screw holes.

I also added a little wire path on the bottom inspired by AKInferno's "the filter", so the wire routes toward the rear of the printer along the extrusion channel.

Single m5 screw secures it no problem.

Cover is the same for both sides.

As this is friction fit, you do need a well tuned printer. This is tested and tuned for Voron using polymaker ASA.

Print settings

- Voron spec, though i did drop infill to 18% gyroid which is plenty for such a part.
- Use arachne to better slice the thin lines
- No supports needed for the cover.
- Use support for the 2020 alignment tab on the base parts(I haven't learned how to design built in supports yet. Using paint on supports, smart fill works well. I used “snug” support type in Prusaslicer or SuperSlicer in support settings for minimal material waste).

.step files provided so you can mod to your needs.

Model files

5015bedfanmountcover-v10.stl

5015bedfanmountbaseleft-v10.stl

5015bedfanmountbaseright-v10.stl

5015bedfanmountbaseleft-v10.step

5015bedfanmountbaseright-v10.step

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bedfanmountcoverleft-v10.step

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bedfanmountcoverright-v10.step

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