



Simple Vent Grille (for wall, ceiling, floor, etc.)

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Summary

This is a simple vent grille that I designed for our built-in entertainment center to have ventilation.

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Tags: [air](#) [cover](#) [return](#) [vent](#) [grille](#) [hvac](#) [entertainment](#)

This is a simple grille cover for a vent. I made it because our built-in entertainment center that we custom made was going to cover over an existing HVAC return loop on the ceiling. We wanted to make sure there was air flow between the rooms, so I designed this, printed it, sanded/post-processed, then finished it with matching paint to our built-in entertainment center.

For post-processing, I recommend a graded-sanding approach, a lot of practice on test articles, and patience. Step through all the different sandpaper grits until you get up to around 300s to 400s and it's probably in good shape to paint. Ours came out incredibly well once it was painted. It blends with the finished wood much better than I expected.

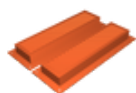
I believe we had to lightly sand/file the retention tabs to get it to fit into our slots we cut in the built-in ceiling box.

The images are of our built in to see how we applied it.

I've included the native CAD files in .sldprt and .stp in case you would like to use it as a starting point and maybe modify for your application.

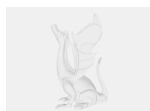
I printed in PETG for strength and longevity and I had worked with post-processing + finishing PETG more than PLA.

Model files

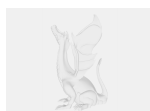


vent_cover_v1.3mf

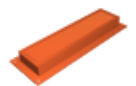
☐ x2 in this .3mf file by default



vent_cover.step



vent_cover.sldprt



vent_cover_v1.stl

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