



Customizable Parametric Face Mask 🤪 Ear Saver (Holder, Buckle, etc)



Riskable

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Summary

This .scad can generate a back-of-the-head face mask holder of any length, width, with any number of "teeth" of any...

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Tags: [mask](#) [holder](#) [medical](#) [facemask](#)

This .scad can generate a back-of-the-head face mask holder of any length, width, with any number of "teeth" of any size (at any angle!). It even lets you customize it with a corporate logo, custom emoji, or whatever text you like. It can even generate models for multi-material printing (to get that crisp look like the one in the photo)!

Included are a number of ear saver STLs (all generated using the .scad):

- Regular (embossed) and "outset legend" versions (for color change; M600) with the "face with medical mask" emoji (🤒). There's also a STL with just the legend for multi-material printing (so you can add it as a part).
- The same as the previous bullet but with the Rod of Asclepius symbol (⚕️) instead of the face mask emoji.

Why I made this: My mother-in-law made me an awesome face mask but the elastics are slightly too short and it uses elastic bands that are much thicker/wider than standard face mask elastics... So none of the existing models actually worked to hold it on!

I figure I can't be the only person with these sorts of problems so I made a parametric face mask holder generator that can be used to make one with whatever parameters you need.

EDIT 20200410: Made loads of improvements:

- Added "hookies": Little bits at the end of each "tooth" that prevent face mask elastics from sliding off.
- Added RENDER variable so you can pick what to render (instead of commenting/uncommenting bits).
- Added LEGEND_DEPTH variable which controls how deep the legend will protrude into the body.
- Added loads of helpful comments (like the one that suggest using ☺ Rx ☹ as legends).
- NEW: Rod of Asclepius version (looks very professional). Also included full-bed .3mf files for both MMU and non-MMU prints (to save you some time setting up bulk printing).
- Added LEGEND_INSET variable and the ability to put the legend sticking out on top (as opposed to embossed on the bottom). This should make it easier for people without multi-material printers to have a two-color print using a color/filament change (M600) on the last few layers.
- Added LEGEND_X and LEGEND_Y so you can fine-tune the placement of the legend.

Print instructions

Just print it flat (I used 0.2mm layer height but smaller or larger layer heights will probably be fine too). I printed mine in PETG but it's thin enough that it should work fine with basically any filament (e.g. PLA).

For MULTI-MATERIAL prints (e.g. you have the MMU2) just add the *_legend.stl as a part to the main .stl

For COLOR/FILAMENT CHANGE prints (e.g. M600) use the *_outset_legend.stl version and set the filament change at 1mm.

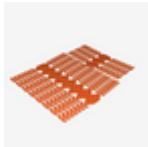
Model files



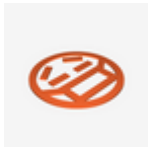
face_mask_ear_saver.scad



face_mask_ear_saver_rod_of_asclepius_full_bed_mmu.3mf



face_mask_ear_saver_rod_of_asclepius_full_bed.3mf



face_mask_ear_saver_mask_emoji_legend.stl



face_mask_ear_saver_rod_of_asclepius_legend.stl



face_mask_ear_saver_mask_emoji.stl



face_mask_ear_saver_rod_of_asclepius_outset_legen.stl



face_mask_ear_saver_rod_of_asclepius.stl



face_mask_ear_saver_mask_emoji_outset_legen.stl

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