

# Customizable Frag Rack for Corals



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## Summary

Completely customizable frag rack, whatever size you want, with tons of options.

[Household](#) > [Pets](#)

Tags: [aquarium](#) [reef](#) [saltwateraquarium](#) [coral](#) [frag](#)  
[fragrack](#)

Please let me know if you have feedback or requests!

Printed in PETG with .2mm layer height. PETG is recommended if you're going to put this in your aquarium. The more infill you use, the less buoyant the rack will be in the water, also depending on the wall thickness you use.

The provided Suction Cup STL files have the keyholes sized for the 30mm [suction cups here](#), but you can use the scad file to generate holes of any size.

The provided Magnet STL files have space to glue in a 32mmx5mm diameter magnet, [like this one](#).

**How to customize:**

Download the .scad file and edit it in [OpenSCAD](#). Open Customizer (Window > Customizer). There are several values that you can change, with detailed descriptions of how each one works.

You can specify:

- number of rows
- number of frag plugs in each row
- frag plug diameter
- frag plug spacing
- whether you want to use magnets or suction cups
- keyhole or single hole diameters (for suction cups)
- magnet diameter (for magnets)
- wall thickness
- rear plate thickness
- height

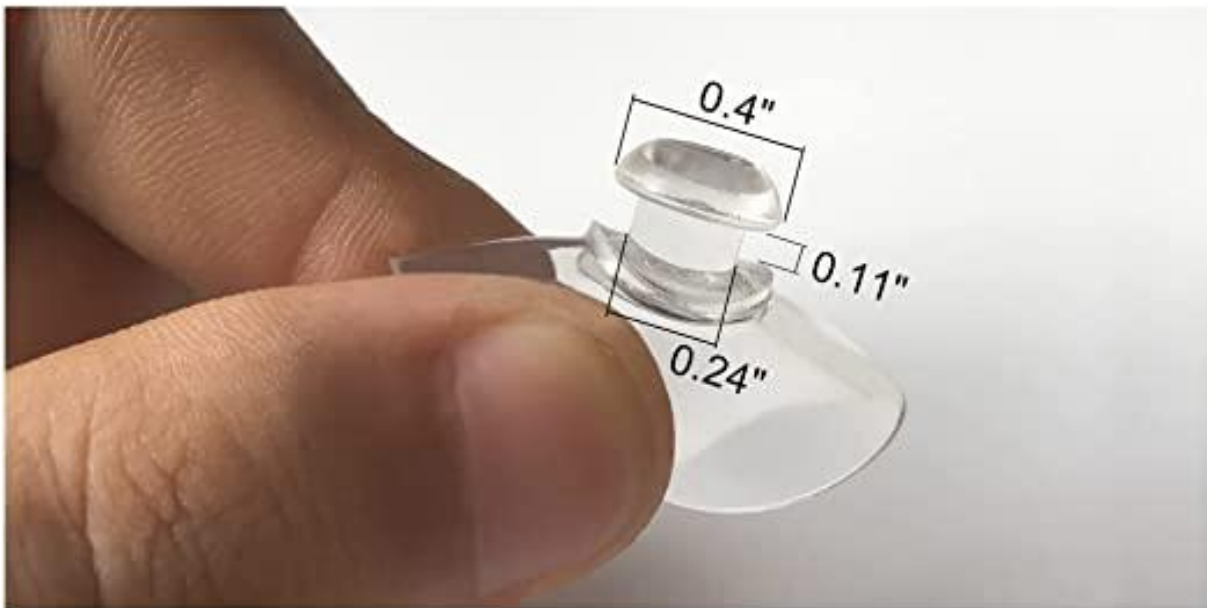
When you're ready, run Design -> Render, then File -> Export -> Export as STL.

### **How to customize for your specific suction cups:**

Using the suction cup diagram image here as an example

# LuluEasy

30mm (1.2 inch)  
Thickened  
Transparent  
Without Hole  
Without Hook  
2 LBS Max Load



In the “Rear Plate Options” section in OpenSCAD's customizer:

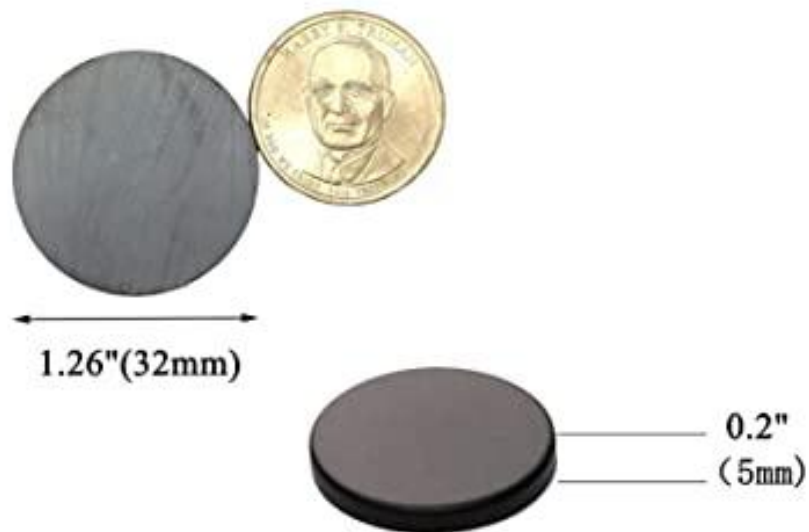
- Make sure “use magnets” is unchecked.
- The width of the “knob” is 0.4 inches (10mm). This is your “keyhole big diameter mm” setting in customizer.
- The width of the stem below the knob is 0.24 inches (6mm). This is your “keyhole small diameter mm” setting.
- The height of the stem is 0.11 inches (3mm). This is your “rear plate thickness mm” setting.
- Since the suction cups are flexible and a tight fit is helpful, you shouldn't need to add any wiggle room to these values.
- Play with the other values until you get what you like!

## How to customize for your specific magnets:

Using the magnet diagram image here as an example.

# PRACTICAL SIZE

ROUND MAGNETS ARE IDEALLY SIZED FOR MANY PROJECTS



In the “Rear Plate Options” section in OpenSCAD's customizer:

- Make sure “use magnets” is checked.
- The width of the magnet is 32mm. This is your “keyhole big diameter mm” setting in customizer. You might want to add 0.5 mm or so of wiggle room (so 32.5).
- The height of the magnet is 5mm. The file will generate a 1mm thick wall inside the magnet indentation, so your “rear plate thickness mm” setting should be 6mm total. Again, you might want to add a little wiggle room, and make it 6.5.
- Play with the other values until you get what you like!

## Disclaimers:

- Use this design at your own risk! It might not hold perfectly, which might cause your frags to fall or get damaged. Some materials might degrade or leach chemicals into your water - do your research!
- If you use magnets, be sure to use reef safe (e.g. ceramic, not neodymium - again, do your research!) magnets and protect the glass on the outside. I'll add a dry-side magnet holder if there is demand.

# Model files

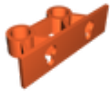


Half Inch Plugs - Suction Cup

9 files



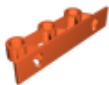
frag\_rack\_suction\_cup\_1.stl



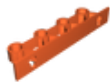
frag\_rack\_suction\_cup\_2.stl



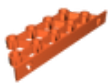
frag\_rack\_suction\_cup\_2\_1.stl



frag\_rack\_suction\_cup\_3.stl



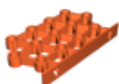
frag\_rack\_suction\_cup\_4.stl



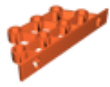
frag\_rack\_suction\_cup\_5\_4.stl



frag\_rack\_suction\_cup\_3\_2.stl



frag\_rack\_suction\_cup\_4\_5\_4.stl



**frag\_rack\_suction\_cup\_4\_3.stl**



**Half Inch Plugs - 32mm Magnet**

9 files



**frag\_rack\_32mm\_magnet\_1.stl**



**frag\_rack\_32mm\_magnet\_2.stl**



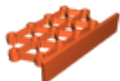
**frag\_rack\_32mm\_magnet\_2\_1.stl**



**frag\_rack\_32mm\_magnet\_3.stl**



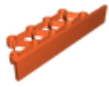
**frag\_rack\_32mm\_magnet\_4.stl**



**frag\_rack\_32mm\_magnet\_4\_5\_4.stl**



**frag\_rack\_32mm\_magnet\_4\_3.stl**



frag\_rack\_32mm\_magnet\_5\_4.stl



frag\_rack\_32mm\_magnet\_3\_2.stl



frag\_rack.scad

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