Modular Shelf Bracket – Easy Accessible, Customizable & Strong

Meister Edel

VIEW IN BROWSER

updated 19. 10. 2026 | published 19. 10. 2026

Summary

Strong and customizable Shelf bracket 180 mm x 180 mm

Hobby & Makers > Mechanical Parts

Tags: shelf wall functional brace furniture design mount wand easy bracket organization element corner stark strong winkel regal accessible strength durable gut stabil customizeable anpassbar honycomb meister edel regalwinkel erreichbar

Heavy-Duty Customizable Shelf Bracket

A strong, highly practical, and customizable shelf bracket designed for easy mounting and maximum strength.

Features

Easy to Mount:

All mounting holes are completely accessible—no diagonal brace blocking your screwdriver or drill!

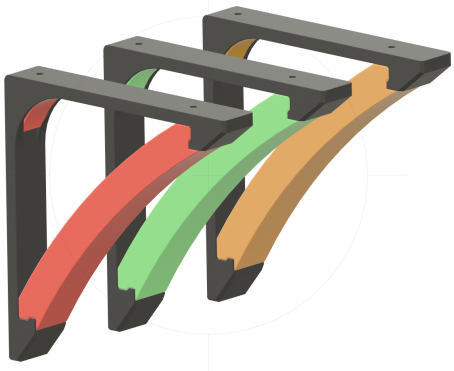
After installation of the Bracket onto the wall you can simply slide in the Corner Brace from the side or "open" the Bracket itself a little.
The Corner brace has "noses" to stay in place. Once there is load onto the bracket it "locks into place" and won't "fall out" by accident.

Strong:

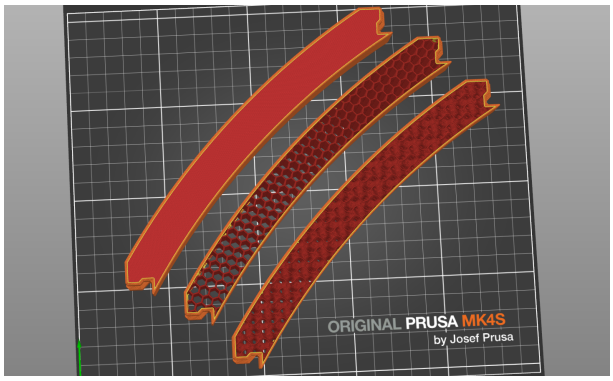
Tested up to **84 kg** (my body weight) using PETG and with the installed corner brace.

Customizable Design:

Play with colors to match your space.

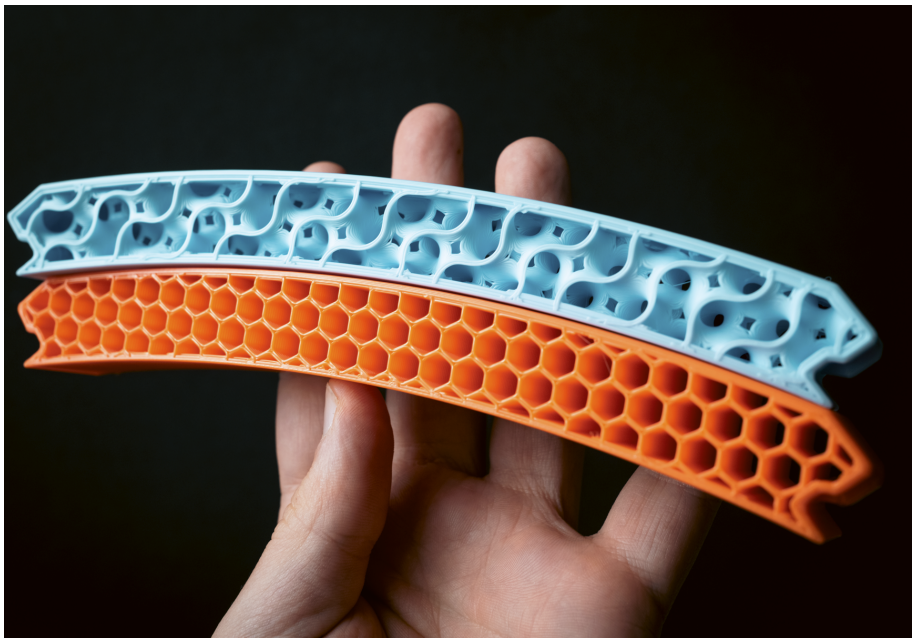


Customize the look of the Corner Brace! Print it with solid walls or expose the infill for a striking geometric look (e.g., 2D Honeycomb at 15% infill). Slicer settings: Set Bottom and Top Surface layers to 0.



Note: The structural strength depends partially on your chosen infill pattern and density.

-> If I reduce the infill percentage I also like to thicken the infill itself as showed in the picture below.
Otpional future elements: The Corner Brace could easily be redesigned for other shapes.



"Corner Plug"
You can add a Corner Plug as an additional and optional design element to hide the screws :) Simply "press it" into place or use the version with magnets.

Scalable:

Need a custom size? Scale all parts uniformly in your slicer.

Keep in mind that scaling changes the screw hole diameters, so you may need different hardware.

Material Recommendation

Choose a tough, rigid material capable of supporting continuous load over time.

- **Recommended: PETG**, **PCTG**, or **ABS/ASA** (especially for heavy shelves or humid environments).
- My Choice: PETG.

Recommended Print Settings

Setting	Standard Configuration (My Print)	Alternative (0.4 mm Nozzle)
Nozzle Size	0.6 mm	0.4 mm
Perimeters / Walls	4	4 – 6
Line Width	0.8 mm	0.45 – 0.6 mm

Infill	25%	25% – 40%

Hardware Required

- **2x** 4.5 mm Countersunk Screws (Senkkopfschrauben)
- **2x** Up to 4.5 mm Countersunk Screws
- **2x** Wall Plugs / Anchors (Dübel) matched to your screws

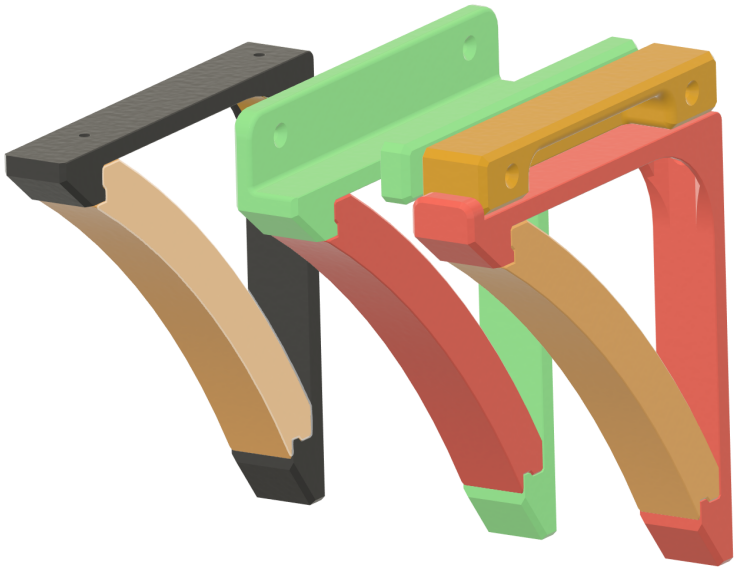
Optional:

- **1–2x** 4 x 4 mm Neodymium Magnets per bracket
- **Double-sided tape** (if you prefer not to screw the shelf directly onto the bracket)

Happy printing & enjoy your build!

If you are only looking for a filament storage: Check out the same design but for 30mm rods:

Updates:
08.10.2026 -> Added Versions for side mounts. Just 4 fun :) - Not tested myself yet!



Model files

shelfbracket.stl

☐ Print many Perimeter for strength.

bracketsupport.stl

☐ Print as is or Set Bottom and Top layers to 0 to see the Infill.

cornerplug.stl

☐ Pressfit.

cornerplugmagnetic.stl

☐ Add 1-2 x 4x4 mm Magnets.

bracket_sidemountii.stl

bracket_sidemount.stl

☐ To fix sth to the wall from its sides.

bracket_sidemount_removeable.stl

☐ Choose what Version. With handle or without :)

License

This work is licensed under a
Creative Commons (4.0 International License)

Attribution—Noncommercial—Share Alike

✖ | Sharing without ATTRIBUTION
✔ | Remix Culture allowed
✖ | Commercial Use
✖ | Free Cultural Works
✖ | Meets Open Definition