



Poster hanger frame - magnetic

 DTaylor

[VIEW IN BROWSER](#)

updated 26. 4. 2023 | published 26. 4. 2023

Summary

A slightly over engineered object for hanging light-weight posters. 570mm wide assembled.

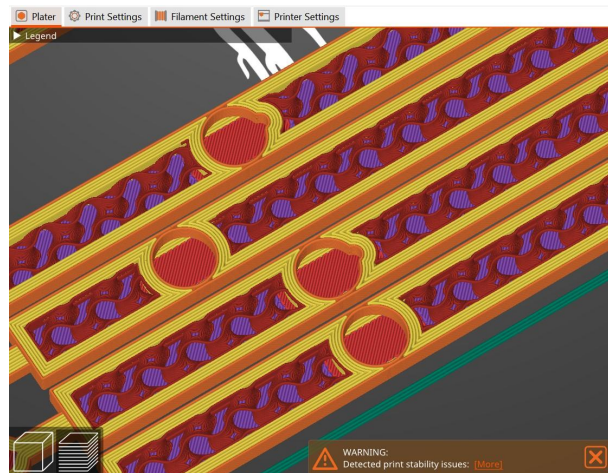
[Art & Design](#) > [Wall-mounted](#)

Tags: [frame](#) [hanging](#) [poster](#)

Quick and easy print to allow the hanging of a poster without using a pin in each corner that will eventually tear the corner, or tape that will damage the poster and wall when removed, and also just because I could - because when you've got a 3d printer, the first step of solving any problem, is finding a way to print your way out of it.

There's a set of STLs for 'A side' and 'B side'. The 'A side' is composed of a 150mm long piece on both ends, and two 135mm pieces in between them, while the 'B side' is composed of a 135mm long piece on both ends, and two 150mm pieces in between them. This allows the staggering of the connections to prevent bending and stress of the parts.

It's important that the magnets in each 'A side' piece are facing the same way (polarity), and that the magnets in each 'B side' piece are all facing the opposite way. To make this easier, I've added a small notch on the internal geometry of all the 'A side' pieces so if you print all the parts at once, you can easily figure out which way your magnets need to go.



I've also included an additional set of STLs with a looser fit if your printer isn't capable of reliably printing small tolerances. The 'Original' STLs have a tolerance of 0.05mm for the interlocking bits, while the 'Looser' STLs have a tolerance of 0.15mm. I have not tested the 'Looser' files.

You'll print each STL (of either 'Original' or 'Loose') twice, except for the 'A side' ends. You'll only print one of each of those, as the bottom of your poster doesn't need the tabs for hanging.

Instructions:

1. Once loaded in your slicer, reorient the pieces so all the 'male' portions of the connections are on the plate. This will avoid any bridging or need for supports for both the 'male' and 'female' portions.
2. Add a pause on the first layer above **4.2mm**. If printing at 0.2mm, add a pause at the layer at 4.4mm.
3. Add your magnets in the slots. The circles with notches should all have the same polarity, and the circles without notches should all have the other polarity.

The space for the magnets is 8.25mm x 3.4mm which should allow for a wide range of sizes to be used. I used 2x 8mmx1.5mm n50 magnets in each hole.

I printed at 0.2mm layer height, 15% infill, and 3 perimeters. Whatever your default is will work fine.

I included the step file in case you want to make it longer or shorter for your needs.

Model files



Looser - 0.15mm tolerance

10 files



a-side-150a-end-with-tab-loose.stl

☐ Only print 1 for top



a-side-150a-end-loose.stl

☐ Only print 1 for bottom



a-side-135a-inner-loose.stl

☐ Print 1 for top, 1 for bottom



a-side-135b-inner-loose.stl

☐ Print 1 for top, 1 for bottom



a-side-150b-end-with-tab-loose.stl

☐ Only print 1 for top



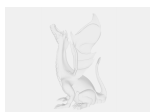
a-side-150b-end-loose.stl

☐ Only print 1 for bottom



b-side-135a-end-loose.stl

☐ Print 1 for top, 1 for bottom



b-side-150a-inner-loose.stl

☐ Print 1 for top, 1 for bottom



b-side-150b-inner-loose.stl

☐ Print 1 for top, 1 for bottom



b-side-135b-end-loose.stl

☐ Print 1 for top, 1 for bottom



Original - 0.05mm tolerance

10 files



a-side-150a-end-with-tab.stl

☐ Only print 1 for top



a-side-150a-end.stl

☐ Only print 1 for bottom



a-side-135a-inner.stl

☐ Print 1 for top, 1 for bottom



a-side-135b-inner.stl

☐ Print 1 for top, 1 for bottom



a-side-150b-end-with-tab.stl

☐ Only print 1 for top



a-side-150b-end.stl

☐ Only print 1 for bottom



b-side-135a-end.stl

☐ Print 1 for top, 1 for bottom



b-side-150a-inner.stl

☐ Print 1 for top, 1 for bottom



b-side-150b-inner.stl

☐ Print 1 for top, 1 for bottom



b-side-135b-end.stl

☐ Print 1 for top, 1 for bottom



poster-hanger-frame.step

License

This work is licensed under a
[Creative Commons \(4.0 International License\)](https://creativecommons.org/licenses/by-nc-sa/4.0/)



Attribution—Noncommercial—Share Alike

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✗ | Commercial Use
- ✗ | Free Cultural Works
- ✗ | Meets Open Definition