



Cup holder for IKEA MALM Bed frame

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[VIEW IN BROWSER](#)

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Summary

Coffee in bed is amazing. There's no better way to wake up.

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Coffee in bed is amazing. There's no better way to wake up.

I made a simple flat platform to hold a coffee cup onto a bed frame, specifically the **MALM** from IKEA. The design is quite simple, so every part should be easily adapted or extended to other applications.

PrusaPrinters does not currently allow the uploading of f3d files. You can grab the Fusion360 "source" file from [thingaverse](#)

Please keep in mind that I have no formal training on Fusion. constructive feedback is welcome!

See the photos for the suggested print orientation and assembly.

Future work:

The steep angle on the head of the dovetail joint is not trivial to print. Even with adequate support material and ideal printing conditions, I still had a bit of warping. Not enough to be out-of-spec, but there's probably a smarter way to integrate the grooves of the joint into the body and make the tongue a separate part that's easier to print.

The plate is meant to be relatively easy to remove from the legs, but there's probably a clever way to build in a simple retention mechanism that will keep the legs attached to the plate without relying on a friction fit that is difficult to undo.

Print instructions

I have included the stl and 3mf files.

All parts are quite simple and have no intricate shapes or über-tight tolerances/clearances. The dovetail slot/tongue require a reasonably accurate/precise printer, but not overly so; I designed in quite a bit of clearance between the two as a perfect friction fit is not desirable.

Infill is up to you, but I'd suggest 10-15% for the "legs" and 20% or more for the "plate" depending on your material choice. PLA is plenty for supporting a warm coffee mug.

I printed with many perimeters for the legs and several top and bottom layers for the plate. This was probably overkill. You should probably just use the stl files with your slicer of choice, but my exact print settings are included in the 3mf files.

I have also included the Fusion360 "source" file as well. Please keep in mind that I have no formal training on Fusion. Designing this part was mostly for practice using a more **disciplined layout approach in Fusion360** and some experience designing **dovetail joints** into a printed part. **constructive** feedback is welcome!

See the photos for the suggested print orientation and assembly. Note that I have enabled support material **everywhere** and not just on the build plate. This was needed for the steep angles on the tongue of the dovetail.

All together, there will be about 7 hours of print time for the three parts, when using the .2mm SPEED setting in **PrusaSlicer** on my MK3s.

Model files

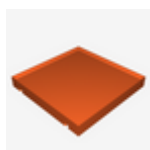


plate-mk2.3mf



combined.3mf



bracket-mk2.3mf



plate-mk2.stl



bracket-mk2.stl

[Find source .stl files on Thingiverse.com](#)

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