



## Octahedron stool



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updated 2. 4. 2024 | published 2. 4. 2024

### Summary

CAUTION, STILL WORK IN PROGRESS This is an octahedron shaped stool composed of 3d printed parts and wooden poles. It...

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CAUTION, STILL WORK IN PROGRESS

This is an octahedron shaped stool composed of 3d printed parts and wooden poles. It is designed to fit 180x180 print bed. It is quite sturdy and safe to sit even with no glue, although gluing is advised.

Current version is the first one I tried to assemble, and there are some tolerance problems: fit is too snug at some points and it requires a bit of sanding, filing and cursing to make center part tabs fit in segment slots and horizontal poles in their holes. I shall update it for easier assembly some time later.

Start with top assembly. When assembling segments and poles, first insert the poles to minimum depth, then gradually push them one by one by short moves at each side. When they are almost fit, insert the center part and tighten the top together. Then assemble the bottom triangle the same

way. Then insert vertical poles into one side first, then to the other and tighten it all with body weight.

The source project (Fusion360) : <https://a360.co/2GZpsRB>

To assemble it, you would need:

- top\_segment - x3
- stand\_post - x3
- top\_center - x1
- pole D20 L403 (wooden or any other rigid tube) - x6
- pole D20 L257 (wooden or any other rigid tube) - x6

## **Print Settings**

### **Printer:**

cetus3d

### **Rafts:**

No

### **Supports:**

Yes

### **Resolution:**

0.25

### **Infill:**

40%

### **Notes:**

I did the first print with 0.6 nozzle, 0.25 layer, 40% triangle infill, 3 layers wall and 5 layers top/bottom. However, it seems like an overkill and too much material spent: ~250g each segment, ~70g for leg posts. Next time I would try lighter settings.

How I Designed This ===== Category: Household

# Model files



**top\_segment.stl**



**stand\_post.stl**



**top\_center.stl**

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com)

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