Tensegrity Stand with optional wood top

T Turnipcat

VIEW IN BROWSER

updated 4. 8. 2023 | published 4. 8. 2023

Summary

A tensegrity stand for stuff to keep on a desk or bedside table. Wood top diameter of 100 mm.

Household > Office

Tags: stand wood tensegrity

A smallish tensegrity stand (the wood top in the picture is 100 mm x 7 mm) I made to put my origami and other little things on.

The holes for the wire are meant for fish wire but it should possible to use a thin rope (1 mm) too.

Printing Suggestions

The top and bottom parts need minimal supports at the center, I obtained a good results using the organic type, anywhere else are not needed. With 10% infill and 2 perimeters wall the printed parts feels sturdy enough for me. I added more infill near the cable “hooks”: see the 3mf files (note that I use a 0.3 mm nozzle, so it's not ready to use if you have a 0.4 mm).

Assembly Suggestions

I started with the three external wires: once in place they need to be as close as possible to the same length. I had some trouble at first inserting the wires in the bottom part but I found a trick consisting in bending the wire for a few mm. Once a wire is in I secured it with a simple knot trying trying to make it the same length as the previous one.

At last I placed the central wire trying to make it as tense as possible.

I'm not completely happy with the assembly process because it took me quite a bit of time and I would like it be easier but it's also the first time I try to assemble a model like this. Maybe I just need a bit more practice :p. Anyway I think the end result is nice so I decided to share.

Model files

bottom.stl

top.stl

disk.stl

tensegrity-stand.blend

tensegrity-top.3mf

tensegrity-bottom.3mf

License

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

Attribution-ShareAlike

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