



Impossible phone stand



Luke's 3D

[VIEW IN BROWSER](#)

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Summary

Ayoooo, the phone levitates?

[Household](#) > [Office](#)

Tags: [hover](#) [impossible](#) [levitate](#) [magic](#) [phone](#)
[smartphone](#) [stand](#) [tensegrity](#) [tension](#) [trick](#) [wire](#)

Hi guys,

here's my Impossible phone stand! Seeing some of the amazing tensegrity structures on internet I had to give it a try. I wanted to give this stand a floating / hovering sense and make it unlike any tensegrity structure I've ever seen. I also wanted to make it look like it should be impossible yet somehow possible. And I think after quite some time and quite some prototyping I've done it! I've also solved the question of tensioning which was one of my points, now you can tension it to your needs without any tools.

DETAILS

Any phone up to 10 mm of thickness can be put into stand or you can download attached .STEP file and adjust the stand to your needs!
The width of the phone doesn't matter you can adjust for any width using

different tensioning.

I also made sure that you can charge your phone while it's on stand.

PRINTING INSTRUCTIONS

For this phone stand I advise use of PLA with 4 or more perimeters to prevent excessive bending and good layer adhesion to prevent it from breaking. All the orientations are already preset so you don't need to change anything. Supports are only needed for holes on the bottom part of frame everything else is accomplishable with bridging.

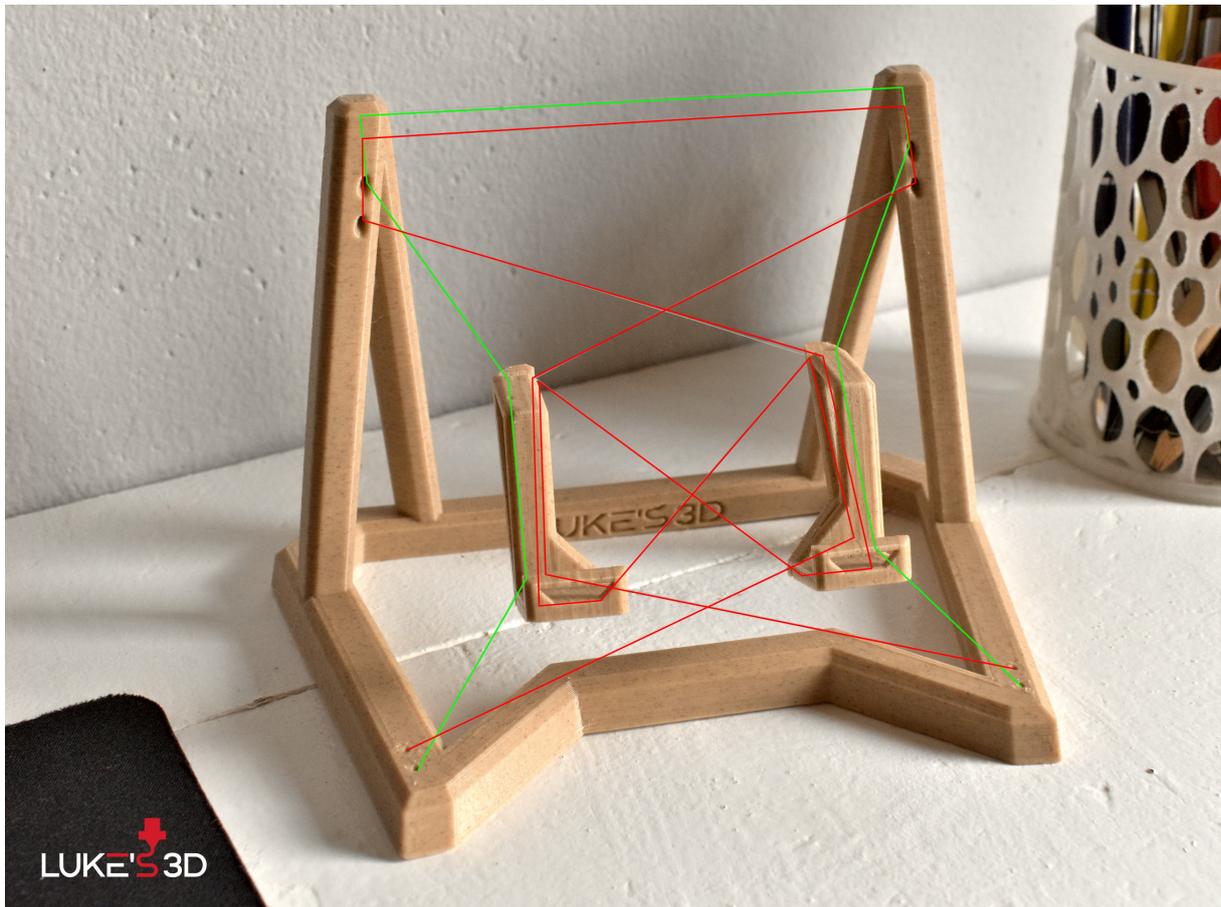
You will need to print:

- 1x Frame
- 1x Stand left
- 1x Stand right
- 4x Tensioner

ASSEMBLY INSTRUCTIONS

For assembly you will ideally need thin transparent fishing line as I have or thread. Holes in the model are 1.5mm in diameter and in some places there are three lines in one hole so take the line thickness into consideration but you should be alright.

- You will need two pieces of line - one long one and one shorter one. Estimate the length according picture below which will help you.
- Then tie the line around tensioner and place the tensioner into first slot from hole.
- Wire the first line according to green wire shown below.
- Again, on the other side tie it around tensioner and put it into slot.
- Do the same for the second line to red wire shown below
- Now you have all wired up all you need to do is tension the lines by moving the tensioner further from the holes.



You're done!

DIMENSIONS

Max dimensions are 158x111.5x110 mm.

As always **.STL**, **.3MF** and **.STEP** files are available!

Cheers!

Luke

Model Files



3MF

4 files



frame.3mf



stand-left.3mf



stand-right.3mf



tensioner.3mf



STL

4 files



frame.stl



stand-left.stl



stand-right.stl



tensioner.stl



impossible-phone-stand.step



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