



Tripod. Universal, Foldable & Fully Printable v3.1



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updated 3. 4. 2023 | published 3. 4. 2023

Summary

Foldable, optimized for easy printing and reliability universal 1/4" and 3/8" tripod.

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Hi, <https://twitter.com/Mkukkk> is here :)

Here is my list or requirement for a 3d-printed tripod:

- **No need to buy additional parts.**
- **All parts should be printed in one night in one go.**
- **Thick design for reliability.**
- **No supports.**
- **No small details or small parts.**
- **No tight tolerances (except threads).**
- **No need to bend parts during assembly.**

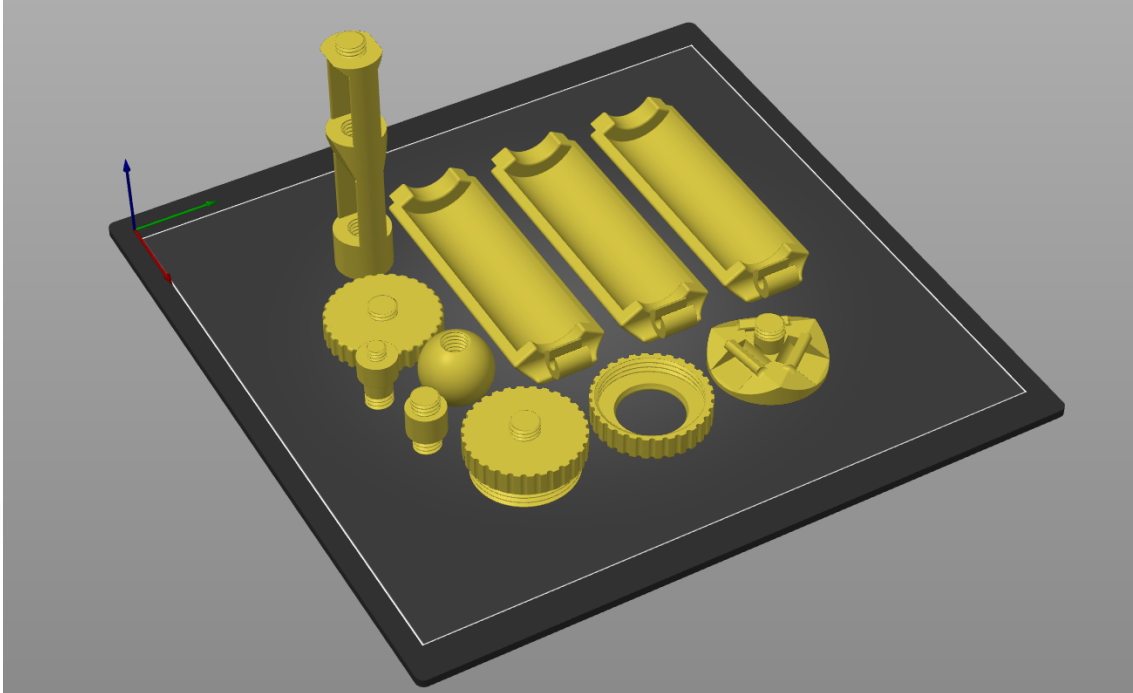
The goal was to design smth you could feed your printer in the evening and use in the morning. It took me 10+ prints to come up with this design.

Versions:

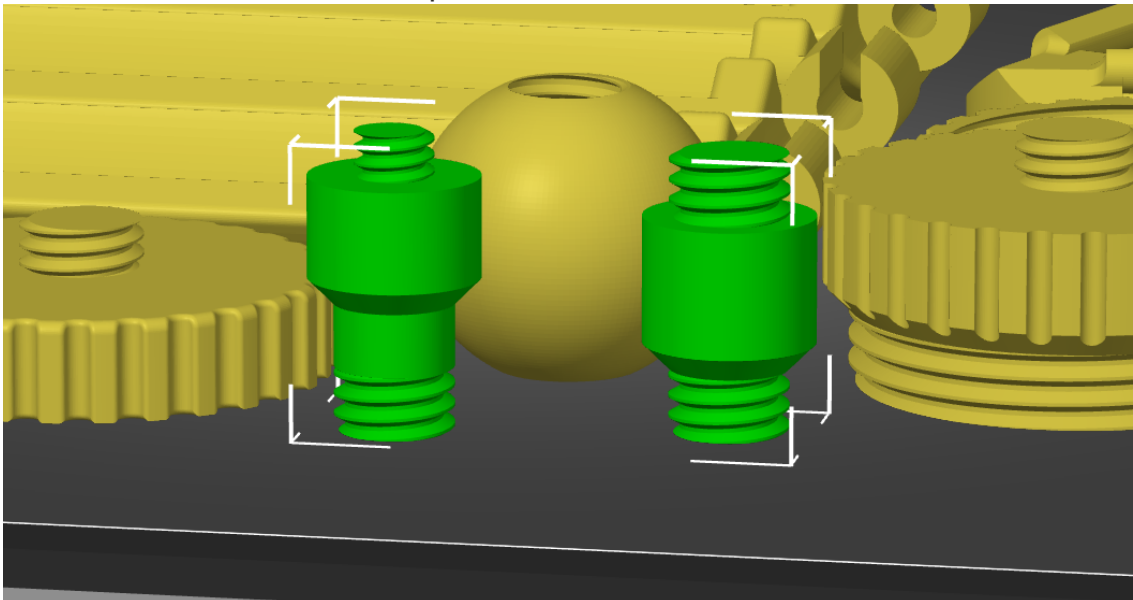
- v2: Added strengthening to the leg hinge.
- v3: Shaft improved for more rigidity and easier printing.
- v3.1: Ball model updated with tolerances.

Printing instructions:

1. Orient parts this way to avoid supports:

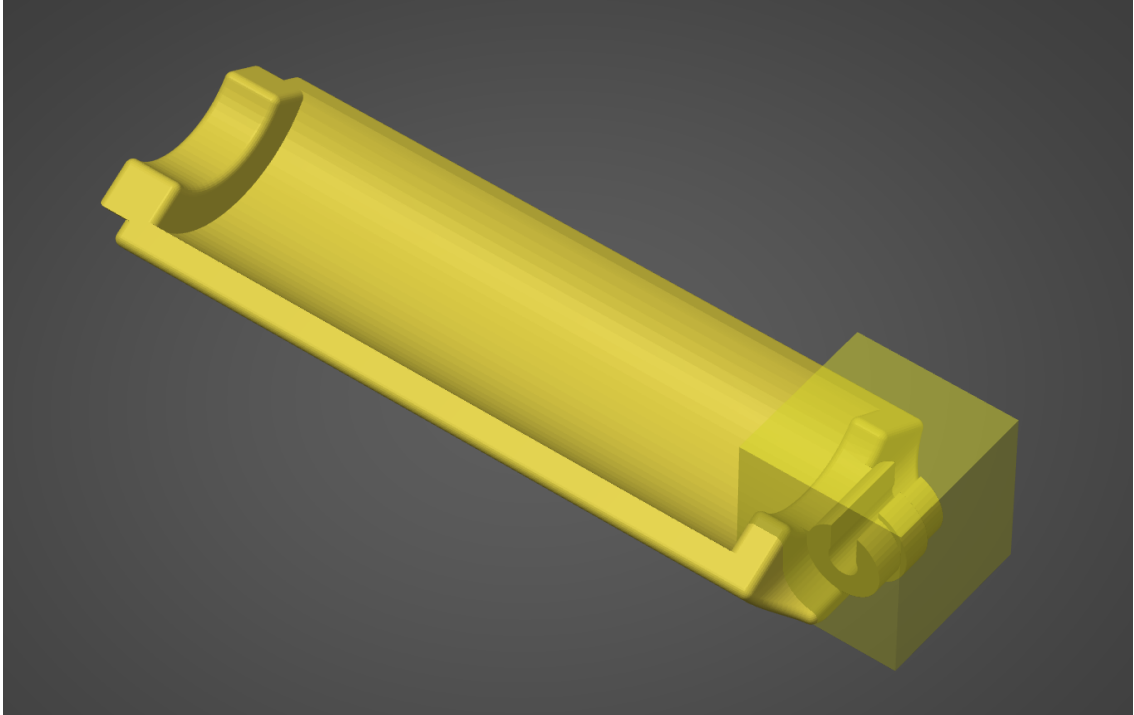


2. Set 100% infill for those 2 parts:



3. Optional: cover the leg hinge with 100% infill modifier. (Prusa slicer: right click on a leg part → add modifier → box. Position the box,

choose it in the right menu, right click → infill → set 100%.)



4. Print! I achieved the best results with 0.16 layer hight and PLA 😊

Assembly instructions:

Assembly should be pretty straightforward. Anyway please note that it's important not to bend the hinde during assembly! It could cause PLA degradation and could make the whole tripod fragile.

After you align axes, try rotating the leg a few times. Carefully watch the misalignment.

Assembly
position:





Reliability:

It took a few broken tripods to make the design reliable. As a result, the base is capable to hold up to 3 kilos.



Unfortunately there is a natural limitation for any 3d printed tripod, a 1/4" mount thread. It's too thin to handle much stress. I'm kindly asking you **NOT TO USE THIS TRIPOD WITH HEAVY OR PRICY EQUIPMENT** at all. Use it at your own risk. It's designed for light microphones and tiny led lights. It's not designed for DSLR until you are ok with this:



Bonus: there is a holder for a backup threaded mount in the center of the tripod. Print a backup one if you plan to use it without a 3d printer nearby ;)

Advanced reliability suggestion: purchase "1/4" to 3/8" Male to Female Thread Screw Mount Adapter" in Amazon or Aliexpress.

Hope you'll like it!

Model files

v3 (default)		9 files
	leg-base.stl	
	final-mount-1-4.stl	
	boll-base.stl	
	shaft.stl	
	final-mount-3-5.stl	
	boll-holder.stl	



leg.stl



lid.stl



ball.stl



v2

9 files



final-mount-1-4.stl



final-mount-3-5.stl



leg-base.stl



ball.stl



boll-holder.stl



leg.stl



boll-base.stl



shaft.stl



lid.stl



v1

10 files



final-mount-1-4.stl



final-mount-3-8.stl



leg-base.stl



leg.stl



shaft.stl



ball-base.stl



ball-holder.stl



ball.stl



lid.stl



3mf_but_better_use_stl.3mf

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