

Adjustable Lab Stand with Clamp



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Summary

This is a universal test tube holder with adjustable clamp for easy laboratory experiments.



6.42 hrs



1 pcs



0.20 mm



0.40 mm



PET



67 g



Prusa
MK3/S/S+

[Learning](#) > [Chemistry & Biology](#)

Tags: [test](#) [diy](#) [chemistry](#) [experiment](#) [adjustable](#) [lab](#)
[tube](#) [versatile](#) [beaker](#) [electroplating](#) [galvanizing](#)

I started experimenting with copper and nickel electroplating and the need for a versatile and adjustable test tube holder stand emerged quickly.

Features

I had a heavy plastic plate for the base of the stand. I decided to use M8 rods for the structure and M5 nuts and bolts for the adjustment screws. I used 30cm M8 rod for the vertical axis and a 20cm M8 rod for the horizontal axis. The holes in the X holder are threaded for easy screw insertion. After printing you can drill the big holes with a 8mm drill for easy sliding up/down/left/right.

The test tube holder can be fit in multiple angles if needed. The clamp can be reversed if you want to hold flat items, for example a sheet anode for electrolysis. Or you can use it the regular way to hold regular test tubes or beakers. The clamp can be reversed with pulling out then snapping back in reversed.

Printing

The printing directions and support needs are pictured in a PrusaSlicer screenshot. I used 3 perimeters and maybe 20% infill, printed it from PETG. I don't recommend PLA as it cannot withstand even 50-60C heat. The caps of the rods should be printed from flexible material or you can just print them from PETG also then heat them and push on the rods. The clamp part has two separate bodies that you should split and print separately while slicing in PrusaSlicer.

Bill of materials

3pcs M5x20 DIN 933 hex screw for the stoppers on the axes
1pc M5x30 for the clamp
1pc M5 nut
1pc M8 rod 30cm
1pc M8 rod 20cm
1pc spare baseplate (anything you find)

Development

I will post any further development in the future.

Any questions and suggestions are welcome :)

Feedback is important!

I spend countless hours perfecting and testing my designs and I would love to hear your feedback too. If you like my designs I appreciate a like or a comment. Please post a photo if you print this.

Donations

I am open to any kind of donation if you want to support me :)

<https://paypal.me/andrasbognar>

Model files



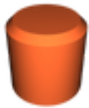
galvanizing-stand-v15.f3d



lab-stand-base.stl



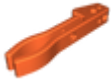
lab-stand-axis-holder.stl



lab-stand-rod-cap.stl

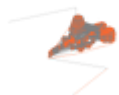


lab-stand-adjustment-knob.stl



lab-stand-claw.stl

Print files



lab_stand_02mm_petg_mk3s_6h25m.gcode

🌀 PET 📏 0.40 mm 📐 0.20 mm ⌚ 6.42 hrs 📊 67 g 🖨️ Prusa MK3/S/S+

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