MTB Bike stand foldable and height adjustable, no screws

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VIEW IN BROWSER

updated 5. 3. 2022 | published 5. 2. 2022

Summary

Foldable bike stand, you can adjust the height and fits in almost any backpack, for travel or the garage

Sports & Outdoor > Outdoor Sports

Tags: small stand adjustable foldable bike travel foldablestand

I am an avid mountain biker and have an appropriate bike. When I'm not rocking the trails, I ride the bike to work, or sometimes in the city to shop. Here it annoys me that I always have to lean the bike somewhere or lay down. So I have gone on the search.

I have some stands printed and tested. Those that were good and stable, but were unwieldy and have consumed too much space in the backpack. What they all had in common was that they were not height adjustable. So I designed my own and it is usable and functional for several bikes and for me 😎

Remember though that there are limits to the load for 3d printed stuff!

I advise anyone who wants to print this to be sure to set at least 6 perimeter or more and 25% infill or more. Otherwise it can break.
My e-MTB weighs 23kg and for this it works fine.

To adjust the height you should first set the height with the part to be pushed. The bike should be slightly slanted for this. Then press the 6mm bolts into the holes to fix the part. Push them in so that they do not protrude (You notice it then when folding).

The ring that secures the main axle is simply pressed onto the axle. If you want, you can secure it with superglue.

Although I designed the axle smaller than the hole where it goes in, I had to re-drill by hand with a 12 mm drill bit. Perhaps I have set too much flow.

I printed the parts on different printers and am still surprised how well they fit together.

I printed with 0.24 layer height and 0.4 nozzle. I used PETG. Printer was an Ender 3 and an CR10s pro V2.
Of course, I will not be held responsible if your bike falls over anyway. Then you have done something wrong....

If you are too lazy to remove the crossbar, it can still be folded. See penultimate picture. The crossbar can be inserted into the pedal arm holder if you want it to be.

I added the Step file, if want to made changes.

If you imported the Stl file in Prusaslicer, click the right mouse button and divide into objects. Then you can distribute the parts on the heatbed. But I think, the heatbed from Prusaprinters are to small for all (But that will change this year, I hope). You can print it one by one.
You need support at the pedal arm holder, See the last picture!

Since i have made the pictures, I changed it a little bit. The CAD pictures are up to date. I have tried to optimize it for simple printing.

happy printing and see us on the trails

Model files

bikestand.stl

bikestand.step

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