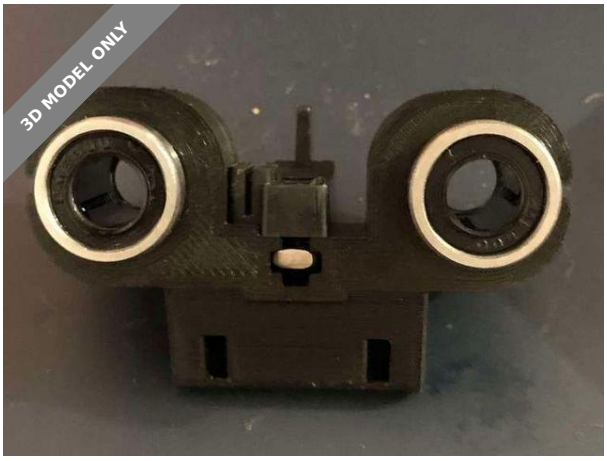

MPMD Replacement Z carriages

x xChrismas

VIEW IN BROWSER

updated 16. 5. 2022 | published 16. 5. 2022

Summary

So I've decided to change the linear bearings on my MP Mini Delta to LME8UUs. Those have a diameter of 16mm instead of...

3D Printers > 3D Printers - Upgrades

Tags: customizable monoprice carriage mpminidelta monopriceminidelta zcarriage mpmd

So I've decided to change the linear bearings on my MP Mini Delta to LME8UUs. Those have a diameter of 16mm instead of the usual 15mm on the LM8UUs, so I needed new carriages.

I've decided to model them up from scratch myself, and they should work perfectly fine as replacement carriages if yours broke, you want to use new bearings or you cant remove the old bearings out of the stock carriages.

My design is available for LM8UU (15mm) bearings and LME8UU (16mm) bearings.

The bearings should just snap in place and are kept in place by tension. No need for glue or screws.

Furthermore this carriage uses the stock hardware for the thing that hits the endstop. Just unmount it from your old carriage and mount it to the new one.

The arms are mounted onto the carriage with two M3x20mm screws and two M3 square nuts.

Before fitting this to your printer, please check if the printed carriage is accurate. To do this: Screw an original M3 Nut halfway onto a M3x20 screw, then screw it into the place where it belongs on the carriage (look at the pic). Do this for both sides and measure the distance between the M3 nuts. It should be around 34.5mm and for best results this distance should match the distance between the M3 nuts on your effector plate.

What do I do if it doesn't match the distance?

I've included the .step files for the carriages also! You can simply pull up your favorite 3D Modelling program and edit the file and to perform a push or pull on the surface to get the right dimension that matches your effector plate.

To print this properly you probably want a well calibrated printer in the first place. So be sure that you calibrated your Esteps and flow properly (at minimum), I wouldn't exactly print this on an uncalibrated out of the box MPMD since the printer (at least mine) was quite off dimensionally wise, and even after calibrating and modding it doesn't really reach the quality my modded Ender 3 can reach.

Print Settings

Printer Brand:

Creality

Printer:

Ender 3

Rafts:

No

Supports:

No

Resolution:

0.12 - 1.16

Infill:

55%

Filament: Filamentworld PLA Black

Notes:

Technically this design doesn't need supports, but if the partcooling of your printer is average or bad, you should probably add supports. Also if you're printing with 0.2 layer height you should experiment with using supports for the overhang. I got best printing results with 0.12-0.16mm layerheight, at which the overhang prints better.

Category: 3D Printer Parts

Model files

mp_mini_delta_z_carriages.step

z_carriage_mpmd_lme8uu.stl

z_carriage_mpmd_lm8uu.stl

Find source .stl files on Thingiverse.com

License

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

Attribution-NonCommercial

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