



ZX and ZY printer frame test



V1 Engineering

[VIEW IN BROWSER](#)

updated 11. 10. 2020 | published 18. 8. 2020

Summary

This part is mainly made to test a printers frame for axes perpendicularity.

[3D Printers](#) > [Test Models](#)

Tags: [mpcnc](#) [v1engineering](#) [axistest](#)

This part is mainly made to test a printers frame for axes perpendicularity. If your printer is built without checking you can get odd shaped prints. Parts that need dimensional accuracy depend on a correctly built printer.

XZXY - main test part.

The Z dimension should be within 0.5mm. Ideally it should be within less than half your first layer thickness, to account for some first layer squish.

The diagonal dimensions should be within 0.6mm. This is the meat of this test part. Note; On a Cartesian style build if you find ZY issues you should print a test part on each side of the bed to check both sides of the frame (or Z rails on a Z axis bed build).

The holes are fairly V1 Engineering specific, 8.2mm for bolt holes, 5.2mm for M5 screw holes, 3.4mm for loose M3 screws, 3mm for M3 screw threaded holes. Just a gauge really.

The overhang test should be easy, if not your print temps or print fan is off. These need to work for a V1 Design to print well.

Ghosting of the logo of other designs in the part means you are printing too fast or have harsh accelerations. Good rule of thumb is to see no more than three very subtle ghosts preferably less, any more and you really need to work on that.

I have included single parts to help speed up major build issues.

Print instructions

Sparse infill is fine, at least two walls.

Model files



xz-test.stl



yz-test.stl



xyz-test.stl

License

This work is licensed under a
[Creative Commons \(4.0 International License\)](https://creativecommons.org/licenses/by-sa/4.0/)



Attribution-ShareAlike

-
- ✗ | Sharing without ATTRIBUTION
 - ✓ | Remix Culture allowed

- ✓ | Commercial Use
- ✓ | Free Cultural Works
- ✓ | Meets Open Definition