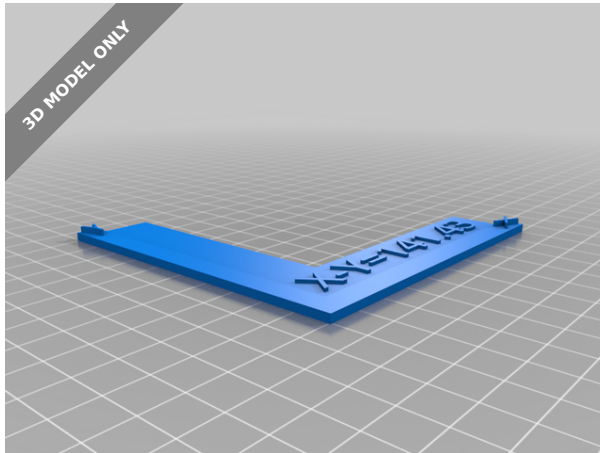


3D MODEL ONLY



## XYZ axis and dimensional test

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### Summary

This is a 100mm x 100mm L shape that's meant to check your X/Y/Z axis are square. Also works as a dimensional test,...

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Tags: [90degree](#) [dimensionalaccuracy](#) [test](#) [dimensionaltest](#) [squaretest](#)

This is a 100mm x 100mm L shape that's meant to check your X/Y/Z axis are square.

Also works as a dimensional test, 100mm will give you a better idea than a 25mm cube. And you may print it faster. If you don't need to check the Z axis you can stop the print, to save time and filament.

Print it with the X (the long text) side facing the front so you'll know that is aligned with the machine X axis. Make sure is properly cooled down before removing, to avoid any distortion!

Then check for consistency in the 100mm sides (+- 1/10mm), your distance between the X-Y outer edge has to be 141.43mm for a perfect 90° angle (90.007 if you're that passionate). The Z side has to be 100.0mm, easy to check with a set of vernier calipers.

If you experience dimensional errors, you can still check it's square by measuring the 3 sides (X, Y, and X to Y) and use good ol' maths because it's a triangle ;-)

"why not using a protractor?" some may say.

Well you cannot measure 1/10 of degree that easy, but you can measure 1/10mm with a set of average vernier calipers.

Measuring across opposite angles is standard procedure in carpentry and engineering.

And when you're done, with flying colours, doubles-up as a mini set square ;-)

Category: 3D Printing Tests

## Model files

**square\_test\_ruler\_mk15.stl**



**square\_test\_ruler\_mk21.stl**



[Find source .stl files on Thingiverse.com](https://www.thingiverse.com)

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