

## Corner Box



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[VIEW IN BROWSER](#)

updated 12. 4. 2022 | published 12. 2. 2022

## Summary

A highly customizable box/enclosure designed to fit in a wall+wall+ceiling corner.

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This is a highly customizable box/enclosure designed to fit in a wall/ceiling corner. The sides are joined by opposed hook/groove pairs, the top by hooks. There are holes to screw the box to the walls and to hold the lid.

The edges may each have a different length, though for esthetics it's best to keep at least two of them the same. Edges can be chamfered to accommodate walls with not-quite-angular corners.

The box works reasonably well even if not printed perfectly. Depending how you configure the hooks (and your printer's tolerances) you might get away with skipping the screws for the lid.

There are options for a cable hole (on one of the walls) and up to four reasonably-aesthetically-placed openings for sensors (motion, light, temperature/air quality, camera, ...) on the front.

The OpenSCAD code is reasonably well documented and contains a heap of geometry code that is very instructive if you ever need to build things that don't have the same thickness and need to fit together in non-right-angled configurations (i.e. the lid, as I have no need for a box that fits non-

right-angled walls. Support for that could probably be added without much effort).

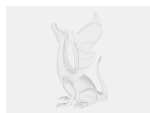
The corner\_box.scad file contains the actual box-generating code. corner\_test.scad declares the required variables, then loads corner\_box.

The hooks can be fiddly when printing with PLA. Best to make them as long + wide as possible. I usually switch to PETG for the top.

## How I Designed This

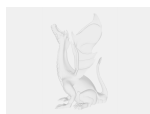
Well ... get an idea, refresh knowledge of some high school trigonometry and geometry, code it up, realize it's all a jumble of code, re-work it properly. ;-)

## Model files



**corner\_test.scad**

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**corner\_box.scad**

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**corner\_test.stl**

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**corner\_test\_no\_top.stl**

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**corner\_test\_no\_side.stl**

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com/thing/1111111)

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