Foldable Simple Tablet Stand (parametric)

R **Rainer Backes**

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Summary

Inspired by those simple Cell phone stands, you get on every corner - a larger one, widely adaptable.

Gadgets   >   Portable Devices

Tags: stand   ipad   foldable   tablet

This is the simple and transportable Addon for all tablet users. Most tablet covers only allow standing the tablet in landscape orientation. But we need it sometimes (epsecially for reading) in portrait orientation. This was the reason for me to design this stand.

Printing

There are 2 pre-made .stl files: One with 60° angle (the orange one) and one with 80° (the black one on the pics) angle - for an iPad with a foldable cover. The legs print together, you have to insert a piece of filament into the hinge - I seal it with a soldering iron.

Customizing

To customize the model, you need OpenSCAD and install the BOSL2 library (https://github.com/revarbat/BOSL2). Open Stand.scad. hexa.scad is a small library.

Parameters

Here are the most important parameters: (All units are mm except otherwise noted)

thick: The thickness of the legs, default 4

angle: The angle in degrees, the pad stands. 60 is good for reading, 80 good for video conferencing.

ipthick: Thickness of the pad itself. Together with the next 2 parameters makes the width of the cutout the pad rests in.

coverthick: Thickness of the opened cover - usually folds behind the pad

cov_tol: Additional tolerance, keep it at 1.

cov_overlap: My cover stands a bit over the edge of the pad. This is how much.

cutout_h: The height of the start of the cutout for the pad over the base.

nock_add: How much should the front add to hold the pad

totlen : total length of the legs (without hinge). 170 is sufficient even for the 12.9" iPad

support_hi: Maximal hight.

back_hi: hight of the back, where the hinge is.

back_even: how long stays it at the back_hi before raising to support_hi. Determines also where the hex infill begins.

sidewall: Thickness of the wall around the infill

hexsize: size of the filling hexagons

hexwall: Thickness of the wall between the hexagons.

Model files

stand80.stl

stand60.stl

stand.scad

hexa.scad

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