



Pantograph Bookend



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[VIEW IN BROWSER](#)

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Summary

Parametric retractable bookend that was designed to actually work (doesn't flip).

[Household](#) > [Home Decor](#)

Tags: [parametric](#) [bookend](#)

The main purpose of a bookend is to hold the books, so I decided to design one that does it as well as possible.

The original idea is not mine (saw it somewhere on Aliexpress as a metal version a while ago). I've designed this in openscad and tried to make it fully customizable.

To print this, you need:

- left and right wall
- some # of bars (there's 10 bars stl for the bookend as in the picture)
- 2 spacers, 2 long pins and some short pins
 - 17 pins stl is prebuilt for the bookend as in the picture
 - you can use ordinary pins (which need to be glued) or threaded pins

Check bookend.scad for options to customize and generate your own stl files.

A library for threads is included in files (source link is inside .scad file).

To achieve better sturdiness I recommend to increase thickness from 2mm to 3-4mm.

For the best holding power, you need to glue the pins in the sliders after you set desired width.

I printed this with PLA 0.6mm nozzle 0.4 height (pins 0.3 height) in total of 4 hours on MINI.

No supports, all default settings in PrusaSlicer.

Model files



bookend-left-wall.stl



bookend-right-wall.stl



bookend-bar.stl



bookend-short-pin.stl



bookend-long-pin.stl



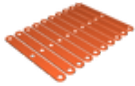
bookend-short-thread-pin.stl



bookend-long-thread-pin.stl



bookend-spacer.stl



bookend-10-bars.stl



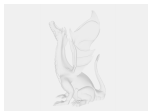
bookend-17-thread-pins.stl



bookend-17-pins.stl



bookend.scad



polyscrewthread_r1.scad

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