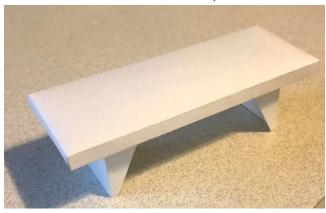
How to fold a bench for your free little art gallery



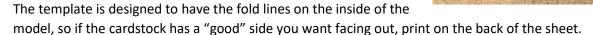
Dimensions: 4" x 1.5" x 1.2"



This bench is folded from a single sheet of cardstock, cut out based on a template. It's designed to keep its shape just from the folds, without adhesive (of course, add a dot or two

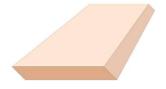
of glue if you wish!).

You can fit three on a sheet, and I've put three in the PDF file. You might need only one, but this gives you a couple to practice folding. The template is also available as an SVG file, so you can modify it if you like (I use the free program Inkscape for this).



Solid lines indicate cuts. Dashed lines are folds that fold in toward you, what origami enthusiasts call "valley" folds because the crease looks like a valley. Dotted lines are "mountain" folds which go the other way (origami folding instructions use dash-dot lines for this). This model curls around to put all the printed lines into the inside, like closing your hand to form a fist, so nearly all the folds are valley folds.

First, pre-crease all fold lines. I created a tool for this, which I call a "folding wedge." It's a thin piece of smooth hardwood cut with the edges at a 45 degree slant. But something with a nice sharp 90 degree corner should also do – I'll still refer to that object as the "wedge".



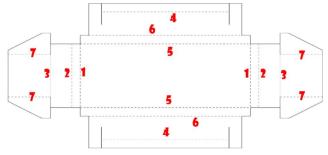
To use the wedge, line up the fold line with the pointy edge, hold the paper firmly in place against the wedge's flat side, and either press the paper against the pointy edge with your fingers, or press against a table and pivot the wedge around the pointy edge. Don't pivot too far, or you'll create another crease against the next corner of the wedge.

Take care to crease *only* the marked lines, else your model will not look as pretty. If a fold line intersects parts of the sheet you don't want to fold, get those parts out of the line of fire. Either use your fingers, or position it on the corner of the table so the parts you want not to fold hang over the edge.



After making the initial crease, fold it the rest of the way over, and use something hard to press the fold nice and sharp (I use the big flat side of the wedge). Then flatten it out again.

Once you've pre-creased everything, the suggested folding order is indicated by this diagram – all are right angle folds:



Fold 6 is the only one that's a little tricky. The flattened-out leg must slide into the slots cut into the long edges. Work them carefully into place so they don't bend or tear. Fold 7 then locks the legs into position. The bottom flaps are a little shorter than the length of the bench on purpose to make them less visible. This is the point you may want to add a little glue, to make them lie flatter.



You could probably get away without doing fold 4 at all, but it provides extra support for making the bottom stay flat.