PROJECTS by CARVEWRIGHT™

Folding iPad Stand

PROJECT INTERMEDIATE DIFFICULTY

This attractive, sturdy stand holds your iPad or other tablet at a comfortable viewing angle. It folds flat for storage or travel.

The wood hinges are not difficult to make. The project includes a couple of jigs to help you drill the hinge holes, and screws are used for the pivots. You can use the loon theme, or get creative and add your own personal touches to the design.

All of the wood parts are made with the CarveWright/CompuCarve machine using only the two standard 1/8" cutting and 1/16" carving bits, plus a few hand tools and a cordless drill.

Materials List

Project Files

- folding_stand.mpc
- folding_stand_parts.mpc

Boards:

- (1) 1" x 8"W x 16"L (actual dimensions ¾" x 7" x 16")
- (1) 1" x 4"W x 7½"L (actual ¾" x 3"W x 7½"L

Materials:

- (4) #6 x 7/8" wood screws
- (4) self-adhesive feet
- sled (see instructions)
- sandpaper
- stain, varnish or lacquer

Hand Tools:

- small hand saw
- screw driver

Power Tools:

- Cordless drill

Step 1

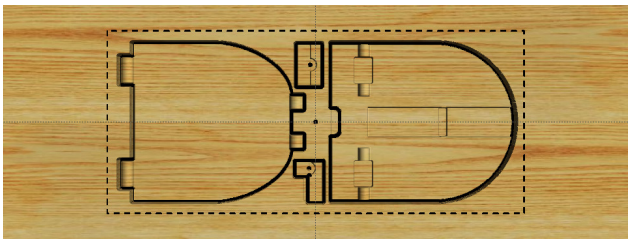
Materials

Choose the boards for your project. Hardwood is recommended. The wood hinges do not have a large amount of material, and it is possible to split the wood during construction. Hardwoods like hard maple or oak will do better than soft woods like pine.

Although the support and front could have been machined from ½" material, I chose to use standard 1" boards (3/4" actual thickness) for simplicity.

You can use flat, oval, or round-headed wood screws. Do yourself a favor and select brass or chrome-plated screws for good appearance.

Step 2



Machine the parts

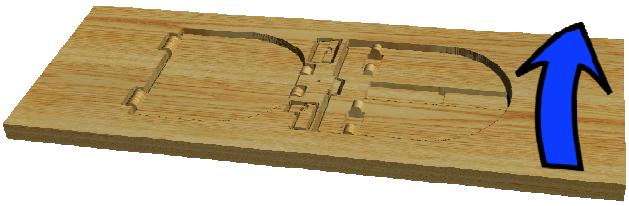
The base, back, and drill guide jigs are machined together. The support and front are machined separately.

The parts could be machined without jigs or sleds, but to conserve wood, a sled is recommended. If you're an experienced sled user, you'll have no trouble modifying the project files to your own style of jig or sled. If not, I suggest that you study the *CarveWright Tips and Tricks Issue 7 April 2008 Carving Jigs – Carrier Boards, Sleds and Rails.* You can find this at www.carverwright.com under Learning – Tips and Tricks. Then build a sled or sleds for this and future projects.

I myself typically use adjustable sleds similar in dimensions to the type in Figure 4 of the *Tips and Tricks Issue 7*, with 1" wide side rails and 4" wide filler pieces. The project files are all set up for sleds of this type.

Parts for the stand are double-sided projects. You can machine these parts in the usual way, using one mpc file and flipping as instructed by the machine. But I have had better luck aligning front and back using a guide centering hole and two separate files. You'll need your sled to be at least slightly oversize in at least one dimension in order to be prompted for position options to use this method.

To cut the base, back, and jigs, load a 1" board (actual thickness ¾") at least 7" wide by 16" long into your sled. Run the project folding_stand_front.mpc and machine with the standard 1/8" cutting and 1/16" carving bits.



When done, remove the board from the sled, flip the board in the same direction as for other

CarveWright two-sided projects, and reinstall in the sled.

Note the hole that has been drilled in the center of the project.

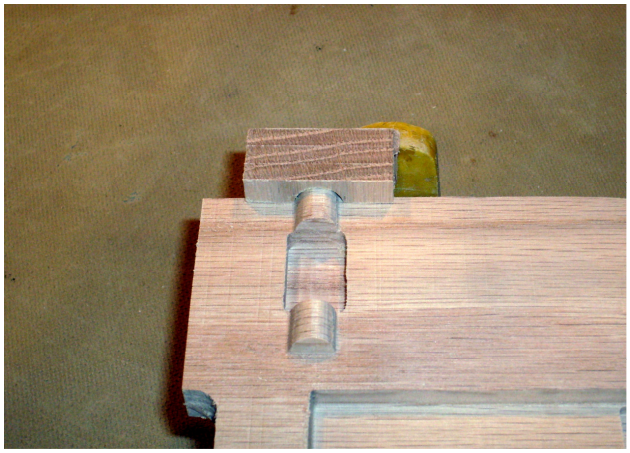
Load the file folding_stand_back. When running this project, select the Jog To Position option after the board measurement. Select the Jog To Center option, and position the bit directly over the center hole. As I said, this works better than letting the machine try to position on its own, at least in my experience.

Cut the other parts in a similar fashion, using folding_stand_parts_front.mpc and folding_stand_parts_back.mpc.

I've also provided standard two-sided project files if that is what you prefer.

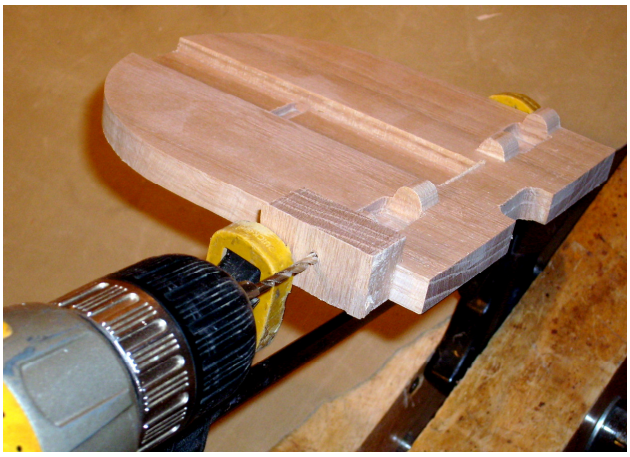
Cut the tabs, remove the parts, and sand the parts clean.

Step 3



Base hinge holes

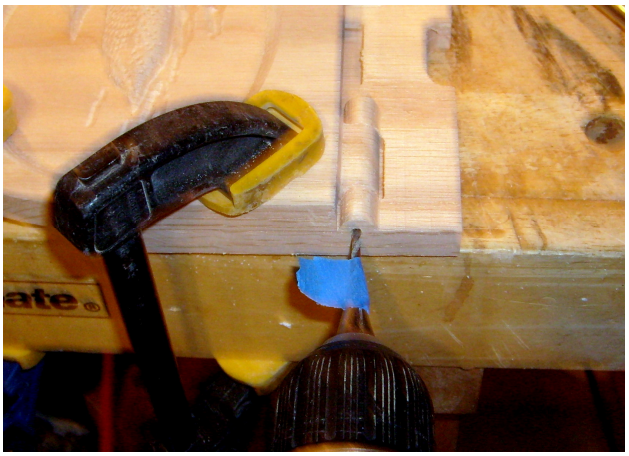
Clamp the base hinge jig onto the base as shown. Make sure that it is centered.



Using the jig as a guide, drill a 1/8" hole in the base. Drill only through the first protrusion. The second protrusion is not functional, but gives the illusion of a hinge.

Repeat on the other side.

Step 4



Back to base

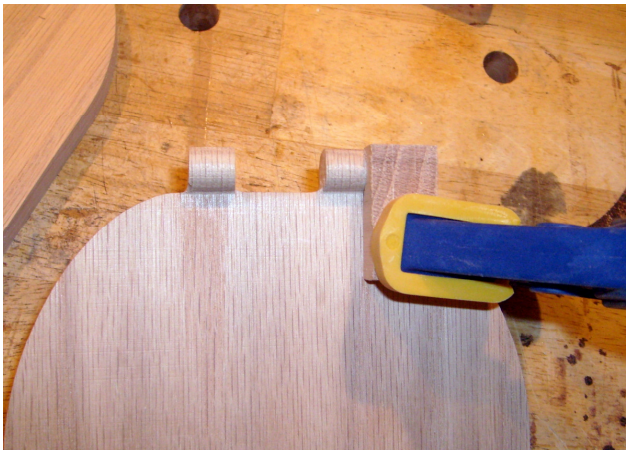
Remove the jig. Place the back onto the base, as if it were in the folded position. Make sure that it likes completely flat against the base. Don't place it tightly towards the front of the base – leave a little gap so that the hinge will move freely when opening. Clamp securely.

With a 7/64” drill bit, drill a pilot hole for a screw. I like to put a bit of masking tape on my drill bit so that I know how deep to drill.

Repeat on the other side.

After the pilot holes have been drilled, remove the back. Enlarge the 1/8” holes in the base to 9/64”.

Step 5



Back support hinge hole

Clamp the back support hinge jig onto the back as shown. Make sure that the jig is perpendicular to the top of the back. Drill a 1/8” hole into the hinge.

Repeat on the other side. (The jig has a recess cut into only one side, but after doing the one side of the back, you should have no trouble aligning the jig for the other side without a recess in the jig.)

Remove the jig.

Step 6

Fasten back

We need the back in place for the next step; it can be removed again for finishing. Temporarily fasten the back to the base using two wood screws. I used oval head wood screws, so I also used a countersink drill bit on the base for these screws.

Step 7

Clamp the support to the back in the folded position. Make sure that the bottom of the support aligns with the recess in the base.

Drill a pilot hole on each side, like you did before.

Remove the screws to prepare for finishing.

Step 8

Finishing

Apply a finish of your choice. I used Minwax Golden Oak stain, followed by a couple of coats of Minwax Satin Polyurethane.

Assemble the back and support using the four wood screws.

Apply four self-adhesive feet to the bottom of the stand.

RESOURCES...

There are numerous resources for the CarveWright/CompuCarve owner to make their experience with these machines much more enjoyable.

Every owner should join the CarveWright User Forum (http://forum.carvewright.com/index.php) where fellow users share their experiences and knowledge with these machines on a daily basis. It is a FREE service that you will surely appreciate. A handy Search Feature helps you find answers to any questions you may have.

You can also visit the forums for up-to-date status on this project.