CARVEWRIGHT™ WOODWORKING SYSTEM

PROJECT BASIC DIFFICULTY

PROJECT TUTORIAL

Decorative Ornamental Box

Designed for CarveWright™ by Michael Tyler - www.carvebuddy.com

Here's a great project to introduce you to an easy, yet impressive looking decorative box using your CarveWright machine!

The box assembly uses simple butt joints that anyone can do. The project requires the 1/16" carving and 1/8" cutting bit.

The Ornamental Box makes a wonderful gift, as well as an attractive personal item for your own home.

The finished dimensions of the assembled Ornamental Box are approximately 12"wide x 8¼"deep x 5½"tall.

Main items you will need:

1) The Project Files (included):
- Ornamental_Box_SIDES.mpc
- Ornamental_Box_LID.mpc

2) Boards with the following dimensions:
Box_Sides: .75"x 11"x 27"
Box_Lid: .75"x 9.25"x 20"

NOTE: Do not use boards that are smaller than specified above.

Cut the following piece to size (not an mpc)
Box Bottom: .75"x 6.75" x 10.25"

3) Hinge(s) for lid - your choice
(I used a Brainerd 8" piano hinge # 1268XC from www.hardwareworld.com)

4) Wood chisel and/or miniature router attachment for your rotary tool for creating a hinge mortise.

5) Sandpaper, box clamp (strap), wood glue, wood stain and/or paint and clear finish

6) A Dremel-type rotary tool with assorted sanding wheels and bits to sand small details and speed up preparation for finishing.

STEP 1
Start your Designer software and open the .mpc files. (Fig. 1a)

Ornamental_Box_SIDES.mpc
4¼ hrs. BEST **OR** 9¼ hrs. OPTIMAL

Ornamental_Box_LID.mpc
2 hrs. BEST **OR** 4½ hrs. OPTIMAL

fig. 1a

All you need to do at this point is upload the project files to your memory card. (File/Upload). When you upload, you may or may not get a pop-up window with an "Auto-Jig" warning message (Fig. 1b)

fig. 1b

If you do see the message, you may safely click on "Ignore" because the actual boards will be large enough that it won't cause any problems at all. After each project is compiled, select "Best" or "Optimal" for the File Quality setting. **I recommend the "Optimal" setting.**

Click "OK" and upload each mpc project file to your memory card. Insert the card into your machine and load a board that measures the appropriate dimension specified for each particular mpc (see page 1 for board dimensions). Turn on your machine and proceed with the standard project setup in Step 2...

STEP 2
You will see "Project Menu" on your LCD display. Press "1" then scroll to the Ornamental_Box_SIDES.mpc project, and press the green ENTER button to select it. Then follow the additional prompts....

• **Stay Under Rollers** - press 1) YES

• **DO NOT RESIZE or SCALE the projects!** If prompted, always **Keep the Original Size**. No scaling!

• **How To Place** - press 1) Center

• **Cut Board to Size?** - press 2) NO

• **Select Cutting Bit: 1/8" Cutting** - Press ENTER. The machine will move the bit holder to the center of the machine in preparation for the bit installation.

• **Load Bit:1/8" Cutting** -Insert your 1/8" cutting bit, then press the green ENTER button. (homes, etc.)

• **Select Carving Bit: 1/16" Carving** - Press the green ENTER button. (Moves to center of machine.)

• **Load Bit: 1/16" Carving** - Remove the 1/8" cutting bit, and insert your 1/16" carving bit, then press the green ENTER button. After homing and finding surface, the machine will begin the carving process.

• **After it is done carving, you will be prompted to load your 1/8" cutting bit.** Remove the 1/16" carving bit, insert your 1/8" cutting bit, then press the green ENTER button. Cutouts are always done last.

(cont.)

STEP 2 (cont.)

• The machine will now proceed to perform the cutout as it moves around the component outlines. It leaves little tabs to hold the part in the board. When the machine is finished, remove your board and clean your machine of excess sawdust.

• Repeat the same procedures for the Ornamental_Box_LID.mpc

Your boards will look like this (fig. 2)

Ornamental_Box_SIDES.mpc

Ornamental_Box_LID.mpc

fig. 2

STEP 3

Separate all the pieces from the boards with a utility knife or hobby saw, then sand all the components to remove any fuzzies and undesirable tool marks. (fig. 3a)

fig. 3a

Use a Dremel-type tool with various abrasive wheels and tips to make the job go faster. (fig. 3b)

Using 3M Radial Sanding Discs with Rotary Tool

fig. 3b

STEP 4

Cut the bottom of the box measuring about .75"x 6.75" x 10.25". **TIP:** Arrange/tape the box sides together (on top of your wood stock) and trace the inside area with a pencil for a perfect fit for the bottom. Glue the sides and bottom together and clamp overnight. (fig. 4a, 4b)

fig. 4a

fig. 4b

STEP 5

When dry, remove the clamps and sand the box seams and contours. Turn the box *upside-down* and center it on the *underside* of the lid. The lid is intentionally slightly oversize.

Use a sharp pencil to draw the outline shape of the box onto the lid. (fig. 5a)

fig. 5a

(cont.)

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STEP 5 ***(cont)***
Sand the box lid up to the pencil line so it is nearly flush with the box contour.

Do **not** sand pass your lines, at this stage. (fig. 5b)

fig. 5b

Select your hinges. You can use a single piano hinge or two 'regular' hinges. I used a 8 " x ¾ " piano hinge. Position the hinge on the box edge and outline it with a pencil. (fig. 5c)

fig. 5c

Using your mark as a guide and working very carefully, use a hand chisel or miniature router to remove enough material within the mark so the hinge will sit flush with the box edge. (fig. 5d, 5e)

fig. 5d

fig. 5e

Make pilot holes and screw the hinge into the recessed area. Line up the lid, make pilot holes, and screw on the lid. (fig. 5f)

fig. 5f

STEP 5 ***(cont)***
With the lid in place, do the final sanding so the lid matches the box contour perfectly. Remove the hinge before applying your box finish. (fig. 5g)

fig. 5g

STEP 6 - Finishing
Apply stain/paint and clearcoat of your choice. Here's what I used on my Ornamental Box made from Select Pine:

- one very light coat of thinned Bullseye Sealcoat (2 parts sealer/3 parts Denatured alcohol)
- sanded again with very fine sandpaper & Dremel
- Minwax Sedona Red #222 stain
- one coat Bullsey Amber Shellac (thinned - 2 parts shellac/1 part Denatured alcohol)
- three coats Minwax water-based Satin polycrylic

After the finish is dry, re-install your hinges. An option is to attach four 'feet' on your boxes. Small decorative wooden knobs from a craft store, painted metallic gold, is one idea. (I simply applied self-adhesive sheet cork on the bottom of my own box.)

IN CONCLUSION
I hope you have enjoyed this project!

You can customize your own box a number of ways. Some options include flocking the interior of the box, lining the interior with self-adhesive felt, applying gold leaf paint to selected details on the outside design, or simply painting the interior with a color of your choice. You might even consider installing a thin center divider inside the box to hold two rows of standard 3x5 recipe cards. Have fun coming up with your own ideas!

Happy Carving!

Michael

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Additional Resources

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.