

Project Tutorial

Featuring compatibility with nearly all CNC Machines

It is our pleasure to provide our customers with fun and useful projects to enjoy!

Vectric Project Tutorial
www.vectric.com

Compatible with:
Aspire 3.5
(or greater)

Sample Carved with:
ShopBot Buddy
PRSalph BT48

ShopBot®
www.shopbottools.com

Round Weave-Top Box

Designed for Vectric™ by Michael Tyler

This Vectric project was inspired by a “Weave Tutorial” I presented at an Aspire Camp. The Round Weave-Top box is a free “bonus” so that Aspire user’s can see how a simple weave pattern can easily be incorporated into a project.

The weave pattern was placed on top of a dome shape created in Aspire, then pocketed and cut out to form a stepped inlay that is inserted from the back of the lid ring of the box. The step thickness of the part (on the underside) acts as a “lip” for the box lid.

The finished dimensions of the completed project are about 8" diameter x 4" H, but feel free to enlarge or reduce all the parts to create your own custom sizes.



Main items you will need:

1) The Project Files (included):

- Box_Bottom-Top.crv3d
- Dome_Weave.crv3d
- Middle_Rings.crv3d

2) Board(s) with the following dimensions:

- Box_Bottom-Top: 0.75" x 10" x 18"
- Dome_Weave: 0.75" x 7" x 7"
- Middle_Rings: 0.75" x 8" x 24"

3) Wooden Bead and dowel for lid (optional)

4) Sandpaper, wood glue, wood stain and/or paint and clear finish

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



CNC Bits used for the Sample:

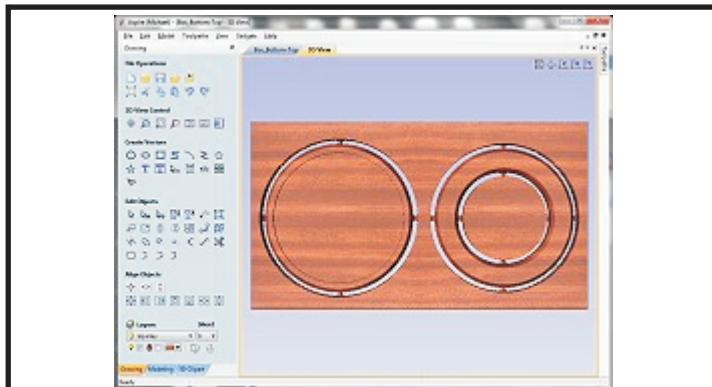
- V-Carve: 90° V-Bit
- Finishing Pass: 1/8" BN
- Cuts/Pockets/Roughing: 1/4" EM

Round Weave-Top Box

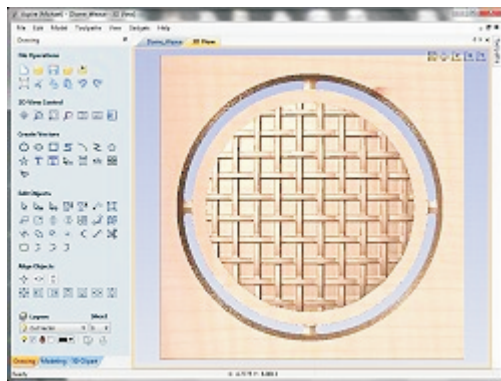
(cont.)

STEP 1 - Open and Review the Project Files

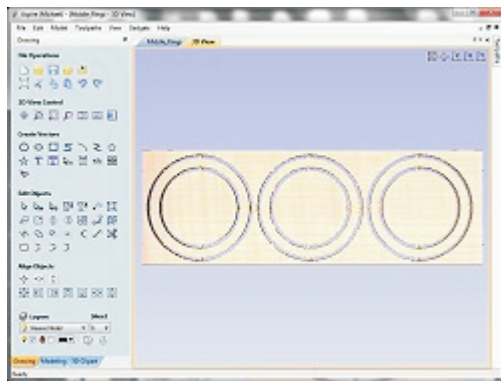
Start your Aspire software and open the project file(s). (fig. 1)



Box_Bottom-Top.crv3d



Dome_Weave.crv3d



Middle_Rings.crv3d

fig. 1

Carefully review all the toolpaths and make any necessary changes to suit your particular bits and machine.

The toolpaths are currently set with feed and speeds that were used in creating the original sample. Please don't use them directly until you review them for your own setup.

You can edit the tools and change the settings to your own preferences and requirements. **It is very important to recalculate all toolpaths after making any edits/changes.**

Once you have recalculated for your own machine and bits, reset the preview, then preview all toolpaths again to visually verify the project outcome on-screen.

The project is designed with tabs to hold parts in place during the final part cut outs. You may delete the tabs if you use some other reliable hold-down method.

STEP 2 - Run the Project

When you are satisfied with your settings, save the toolpaths using the appropriate Post Processor for your machine, place your material on your machine bed and proceed to run the project. (fig. 2a, 2b, 2c)



fig. 2a

fig. 2b



fig. 2c



(cont.)

Round Weave-Top Box

(cont.)

STEP 3 - Release, Sand and Glue Parts Together

Separate all the parts from the boards, then glue the three middle rings together and clamp until dry.

(fig.3a)



fig. 3a

Remove the clamps then sand the rings so edges are smooth and flush (fig. 3b). Sand all other components and check fit. Sand so all parts fit together well.



fig. 3b

At this point, you may wish to apply a stain to certain components. I wiped on some Amber Shellac as a "stain" to the darker wood parts before glue-up (see finish details). Glue ring assembly to bottom (fig.3c)



fig. 3c



Glue weave dome to lid ring, inserting/gluing from the underside. (fig. 3d)

fig. 3d

Glue in a wooden knob to the center of the lid. I used a wood bead, dowel and dowel plug to create the knob. (fig. 3e)

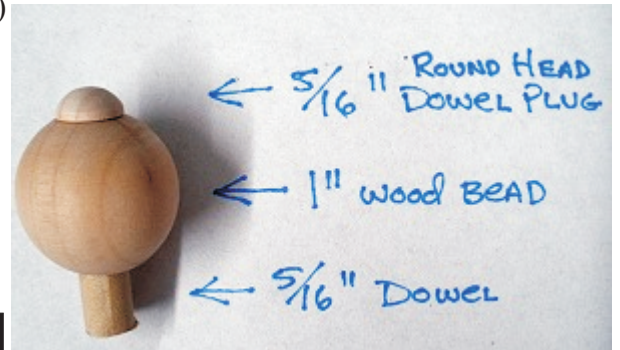


fig. 3e



NOTE: I drilled a hole/pocket in the lid using my drill press, but you could tool this on your CNC, as you wish. (fig. 3f)

fig. 3f

STEP 4 - Apply Final Finish

Apply your choice of finish. Here's what I used on my Round Weave-Top Box made from Maple and Alder.

- Two coats of thinned Bullseye Sealcoat (2 parts sealer/3 parts Denatured alcohol)
- Sanded with fine sandpaper & Dremel
- Wiped on (with a rag) one coat Amber Shellac on the Alder parts (i.e., the top and bottom rings)
- Applied several spray coats of Krylon clear acrylic spray on all parts after assembly
- Cut a circle of self-stick felt and applied to the interior box bottom

IN CONCLUSION

I hope you have enjoyed this bonus project for making your own Round Weave-Top box!

Happy Carving!

Michael

Materials Source Page

- **3M Radial Bristle Discs** from www.mcmaster.com
(stack 3 discs at a time on your rotary tool mandrel)
 - **80-grit:** part # 4494A19
 - **220-grit:** part # 4494A18



Krylon Clear Gloss Acrylic
from WalMart™

Miscellaneous Items Purchased at Lowes™

- Bullseye SealCoat and Denatured Alcohol
- Amber Shellac
- Disposable Brushes and Paint Rags

Miscellaneous Items Purchased at Michael's Arts & Crafts™

- 1-inch wooden bead
- 5/16-inch dowel and dowel plug

Additional Resources

RESOURCES...

There are numerous resources for Vectric software owners to make their experience with their products more enjoyable. The Vectric website includes videos and tutorials to provide a good overview of the software products and how to use them. (http://www.vectric.com/WebSite/Vectric/support/support_vew_tutorials.htm)

As well as the resources available from the Tutorial page, please also visit the 'FAQ' and 'How To' pages for more support information...

'How To' webpage

http://www.vectric.com/WebSite/Vectric/support/support_how_to.htm

'FAQ' webpage

http://www.vectric.com/WebSite/Vectric/support/support_faq.htm

Vectric User Forum

Every Vectric software owner should join the Vectric User Forum (<http://www.vectric.com/forum/>) where fellow users share their experience and knowledge 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. There are Gallery sections as well, where you can post and view photos of projects created with Vectric software.

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