

# Project Tutorial Featuring compatibility with nearly all CNC Machines

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# Compatible with:

(or greater)



Sample Carved with: ShopBot Buddy PRSalpha BT48 **Decorative Grocery List Plaque** 

Designed for Vectric<sup>™</sup> by Michael Tyler

Here is a unique and "fancy" way to make it convenient for yourself and family members to write down needed grocery items between trips to the store! The project features an attractive v-carve design that harkens back to vintage motifs common to many antique hand-carvings.

The sample shown is finished with a cherry wood stain color, but a faux metal finish could be interesting, as well. The overall dimensions of the plaque are about  $9\frac{3}{4}$ " x 17 " x  $\frac{3}{4}$ " deep.



Main items you will need:

1) The Project Files (included):

Grocery\_Plaque.crv

#### 2) Boards with the following dimensions:

• Plaque: 0.75 "x 11 "x 18 "

• Hold Down Strip: 0.125 "x .75 "x 4.5" (the hold down strip is *not* a crv file and can be made from 1/8" hardboard or ply)

3) Two winged screws, two T-nuts, two 1 " cup hooks, stain or paint and clear finish (I used #8-32 winged screws and #8-32 T-nuts for the sample but any size close to that is fine)

4) Drill (or drill press) and bits, sandpaper, paper cutter and hole punch

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 Cut Profiles: 1/4 "Down-Cut EM

#### STEP 1 - Open and Review the Project File

Start your VCarve Pro or Aspire software and open the project files. (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 feeds, speeds and pass depths 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.

**Note:** The project is setup for material that is <sup>3</sup>/<sub>4</sub>" thick. However, you can run this project on thinner material (such as <sup>1</sup>/<sub>2</sub>"-thick MDF) by simply changing the material thickness and profile cut depth in the project file, then recalculating the toolpaths.

#### STEP 2 - Run the Project

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





Your machined plaque will look something like this. (fig. 2c)



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## **Decorative Grocery List Plaque**

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#### **STEP 3 - Release, Sand and Drill Parts**

Separate the part from the material, then sand off any tab remnants and undesirable toolmarks. (fig. 3a)



Cut a strip measuring 0.125 "x .75 "x 4.5 " for the paper/list hold-down from scrap 1/8 " hardboard or ply, then drill the two holes. (fig. 3b, 3c, 3d)



Drill 7/32 " holes through the plaque (or appropriate size for your winged screws and T-nuts) at the divot mark guide locations near the top of the main flat area. (fig. 3e)



You can now tap your T-nuts onto the front of the plaque, or if you wish, you can flip the plaque over and drill two countersunk holes for the T-nuts to be installed from the backside. Either way is fine and is your choice. (fig. 3f, 3g, 3h)



Apply the finish of your choice. Here's what I used on my Decorative Grocery List Plaque sample made from Select Pine:

- Rust-Oleum Ultimate Stain Traditional Cherry
- 2 coats Krylon clear Acrylic spray
- Flat Black Latex paint in v-carve recesses
- 2 coats Krylon clear Acrylic spray as topcoat
- (see fig. 4a, 4b, 4c next page)

(cont.)

### **Decorative Grocery List Plaque**

(cont.)



#### **STEP 5 - Assembly**

Print out a quantity of list blanks (just print the next page or create your own). Cut the page in half lengthwise and hole-punch where indicated. (fig. 5a, 5b)





fig. 5a

fig. 5b

Stack some lists together and fasten them to the plaque by clamping the holder strip with the winged screws. (fig. 5c, 5d)





Drill pilot holes for the screw hooks at the small divot locations near the bottom and install the hooks onto the plaque. The hooks will cradle a pencil or pen. (fig. 5e, 5f)



fig. 5e

fig. 5f

#### IN CONCLUSION

Finally, mount your plaque on a wall in a convenient location. Feel free to modify the project to suit materials you may have access to. For example, you may wish to substitute some sort of spring clamp in place of the holder strip, or affix a self-stick magnetic sheet to hold a list pad. I hope you enjoy making your own Decorative Grocery List Plaque!

Happy Carving! Nicha



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### **Materials Source Page**

#### • 3M Radial Bristle Discs from <u>www.mcmaster.com</u>

(stack 3 discs at a time on your rotary tool mandrel) 80-grit: part # 4494A19 220-grit: part # 4494A18





### Miscellaneous Items Purchased at Home Depot™

- #8-32 winged screws (i.e., wingnuts with integrated machine screw)
- #8-32 T-nuts
- •1" cup hooks



Krylon Clear Gloss Acrylic from WalMart™

50

PCS/PZAS

5

15712

#### Miscellaneous Items Purchased at Lowes<sup>™</sup>

- Rust-Oleum Ultimate Stain Traditional Cherry
- Flat Black Latex Paint
- Disposable Brushes and Paint Rags



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### **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\_vcw\_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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