

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

Novelty “Pocket Watch” Clock

Designed for Vectric™ by Michael Tyler

Here’s a fun and quick clock project that you can complete in just a day! The design resembles a classic pocket watch set into a nice “quilted” presentation box.

This is a super-easy project consisting of just two components and a clock insert to yield an attractive and functional item to display on a side table or shelf in your home.

The overall finished dimensions of the clock are about 3.5 "w x 4.75 "h x 1½ "d.



Main items you will need:

1) The Project File (included):

- Pocket_Watch.crv3d

2) Board with the following dimensions:

0.75 "x 5 "x 12 "

3) Wood glue, clamps, sandpaper, wood stain and/or paint and clear finish

4) 2.5 " round clock insert & battery

(I used model #15686 from www.klockit.com)

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:

Roughing, Pockets, and Profiles
0.25" down-spiral End Mill

V-carves
60-degree V-Bit

Finishing
0.0625" Tapered Ball Nose

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STEP 1 - Open and Review the Project File

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

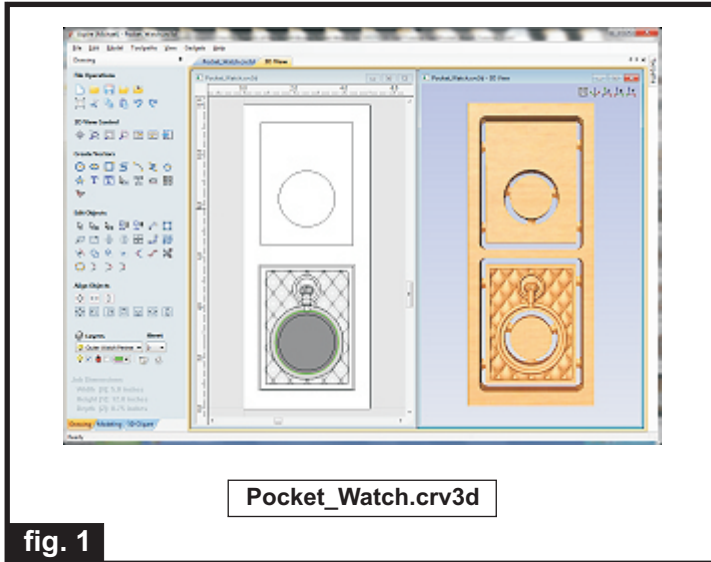


fig. 1

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.

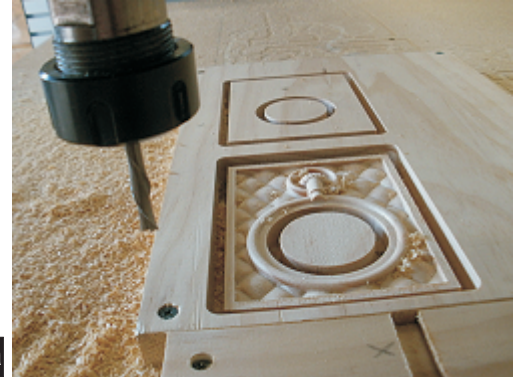
The project is designed with tabs to hold parts in place during the final part cut outs. You may delete the tabs if you use some other reliable hold-down method.

NOTE: The clock is designed with an open back for easy access to the clock's time setting knob. At your option, you can change the plain back panel hole cutout into a recessed pocket if you want the back to be solid. A recess of about 0.25" is all that's needed to allow enough clearance for the specified clock insert that was used for this project. If you make any changes, don't forget to recalculate your toolpaths!

STEP 2 - Run the Project

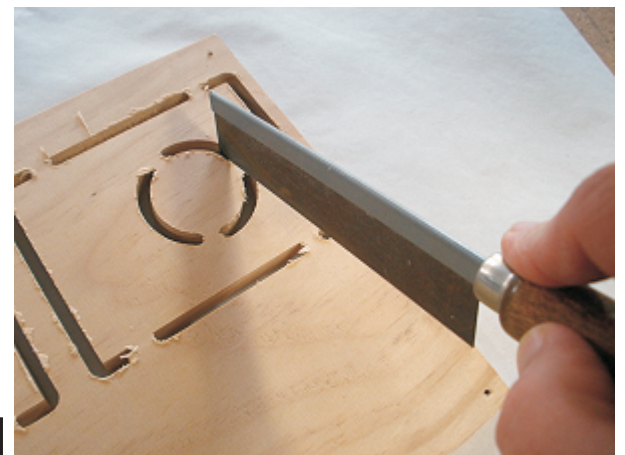
When you are satisfied with your tool settings, save the toolpaths to the appropriate Post Processor for your machine, place your material on your machine bed and proceed to run the project.

(fig. 2a, 2b)



STEP 3 - Release Parts

Separate the parts from the board with a utility knife or small saw. (fig. 3)



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(cont.)

STEP 4 - Sanding and Assembly

Sand off the tab remnants, then glue the two panels together and clamp until dry. (fig. 4a, 4b)



fig. 4a



fig. 4b

Remove the clamps, then sand off any undesirable toolmarks and/or fuzzies. Use a Dremel-type tool with various abrasive wheels/tips to make detail sanding go faster. (fig. 4c)

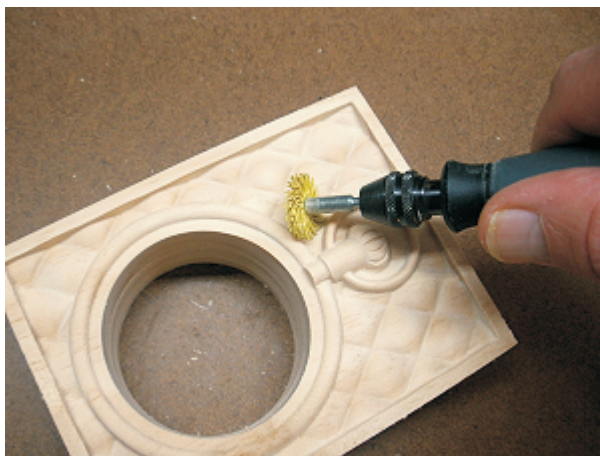


fig. 4c

Sand the outer panel edges so they blend nicely and sand the interior clock hole so the insert fits snugly, but not overly tight. Sand by hand, or use a bench top spindle/belt sander to make the job go faster. (fig. 4d, 4e, 4f, 4g)

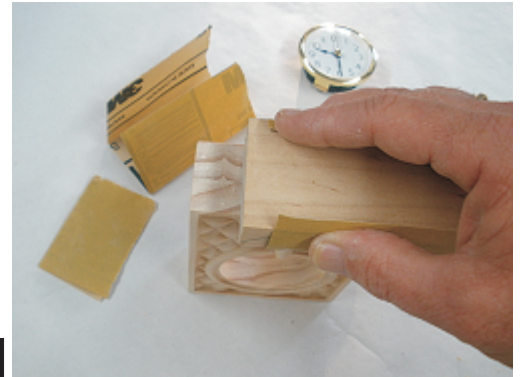


fig. 4d



fig. 4e



fig. 4f



fig. 4g

Novelty “Pocket Watch” Clock

(cont.)

STEP 5 - Apply Finish

Apply your choice of finish. Here’s what I used on my own “Pocket Watch” made from Select Pine:

- One coat of thinned Bulls Eye Sealcoat (2 parts sealer/3 parts Denatured alcohol)
- Sanded again with very fine sandpaper & Dremel
- MinWax water-based Crimson stain applied with small brush on the “quilted” background
- One coat full-strength Zinnser Bulls Eye Seal Coat
- Several coats of Krylon Crystal Clear Acrylic spray



STEP 6 - Final Assembly

Install the clock battery and push the clock insert into the hole mount to complete the assembly. (fig. 6)

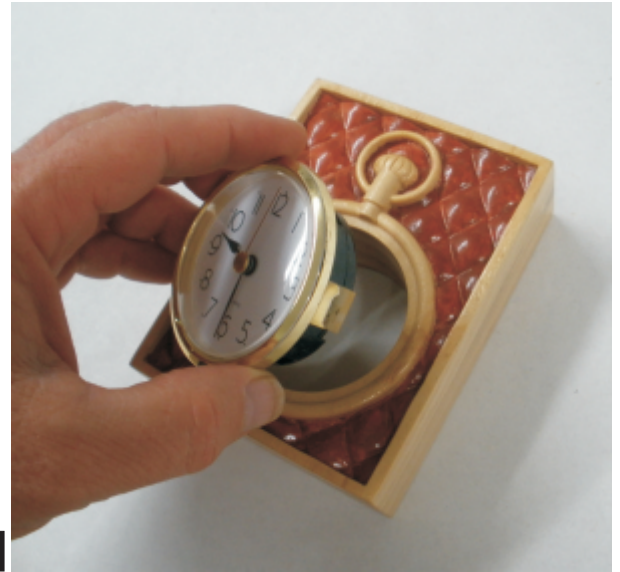


fig. 6

IN CONCLUSION

I hope you enjoyed making your “Pocket Watch” clock project!

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™

- Zinnser Bulls Eye Seal Coat
- Denatured Alcohol
- MinWax water-based Crimson Stain
- Paint Rags and disposable brushes



Clock Insert Purchased Online from www.Klockit.com

- I used model #15686 and purchased clock battery Type N



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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