

# Project Tutorial Featuring compatibility with pearly 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:



or greater



Sample Carved with: ShopBot Buddy PRSalpha BT48

<u>ShopBot®</u> www.shopbottools.com

## "Gear-Style" Wooden Roller Massagers

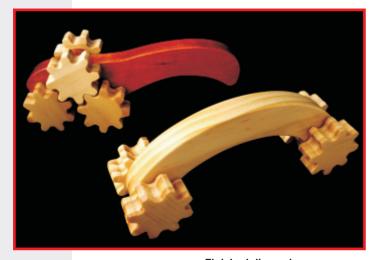
Designed for Vectric<sup>™</sup> by Michael Tyler

Here's an easy project that makes good use of material scraps. A couple wooden massager design layouts are included to help you eliminate those odds and ends you've been piling up around the shop!

These "gear-style" massagers make great gifts you can make in an afternoon. The handles could be personalized with a nice v-carve on the handle, if desired. They also can be popular items to sell at craft shows or for donations to charity auction events.

The file component layouts are really just an arbitrary arrangement. You will likely need to rearrange the components to fit onto whatever scrap material you are using!

Finished dimensions are: 2.375" Dx 8.25" L x 3.375" H



Finished dimensions are: 2.375 " D x 8 " L x 3.125 " H

Main items you will need:

- 1) The Project Files (included):
- 3-Pair Wooden Massager.crv
- One-Pair Wooden Massager.crv
- 2) Any Scrap Material in your shop! (you can adjust the layout as required)
- 3) 0.25 " diameter dowels x 1.625 "long
- 4) Sandpaper, wood sealer, stain or paint and clearcoat
- 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:**

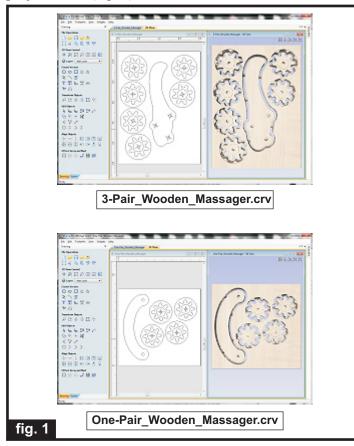
0.25 "Down-Cut EM

## "Gear-Style" Wooden Roller Massagers

(cont.)

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

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. The component layout is arbitrary - feel free to rearrange the components to fit the dimensions of whatever material you may be using. 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 to the appropriate Post Processor for your machine, place your material on your machine bed and proceed to run the files. (fig. 2a, 2b)





fig. 2b

#### STEP 3 - Release Parts and Sand

Separate the parts from the material, then sand off any tab remnants, undesirable toolmarks and ease all sharp

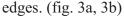




fig. 3a



fig. 3b (cont.)

## "Gear-Style" Wooden Roller Massagers

(cont.)

#### **STEP 4 - Finish Application**

Apply your choice of finish. Here's what I used: (fig. 4a, 4b)

- Two coats of full-strength Zinsser Bulls Eye Seal Coat on the gears (sanding between coats)
- Rust-Oleum Ultimate Stain Traditional Cherry on the 3-Pair handle
- Several light coats of spray Krylon Acrylic clear on all parts (sanding between coats)



Applying Zinsser Seal Coat (100% wax-free shellac)



**Applying Stain to Handle** 

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

Assembly instructions are the same for each massager. Place glue into the lower half of the holes of one set of gears using a toothpick. Insert a 1.625-inch long x 0.25-inch diameter dowel into each hole, making sure

to wipe away any squeeze out (there shouldn't be any). (fig. 5a, 5b)

**Apply Glue** 



fig. 5a



Insert dowel axles

fig. 5b

Insert the axle/gear assemblies into the handle holes, then glue the remaining gear set to the axle dowels as before. Make certain there is no glue squeeze out that would interfere with the gear rotation. (fig. 5b, 5c)

Insert assemblies into Handle



fig. 5c



Glue remaining gear set onto the dowel axles

fig. 5d

(cont.)

## "Gear-Style" Wooden Roller Massagers

#### IN CONCLUSION

That's all there is to it - quick and easy! The project files are just a starting point to endless variations you can come up with on your own. This can be as simple as creating new handle shape configurations for a wide variety of styles. Have fun with it!

Happy Carving!







## **Materials Source Page**

• 3M Radial Bristle Discs from <a href="https://www.mcmaster.com">www.mcmaster.com</a> (stack 3 discs at a time on your rotary tool mandrel)

**80-grit:** part # 4494A19 **220-grit:** part # 4494A18



#### **Items Purchased at Lowes™**

- Zinsser Bulls Eye Seal Coat and Denatured Alcohol
- Rustoleum Ultimate Stain Traditional Cherry
- Paint Rags and disposable brushes
- 1/4-inch (0.25-inch) Diameter Wooden Dowels







Krylon Clear Gloss Acrylic from WalMart™

### **Additional Resources**

#### **RESOURCES...**

There are numerous resources for Vectric software owners to make their experience with their products more enjoyable. The Vectric website includes video tutorials and more, to provide a good overview of the software products and how to use them. Please visit the Support page for a complete listing of available resources for you.

**Vectric Support: http://support.vectric.com/** 

#### **Vectric User Forum**

Every 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.

**IMPORTANT:** Before outputting any toolpaths you should carefully check all part sizes and the material setup to make sure they are appropriate for your actual setup. You should also check and re-calculate all toolpaths with safe and appropriate settings for your material, CNC machine and tooling.

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