



CARVEWRIGHT™

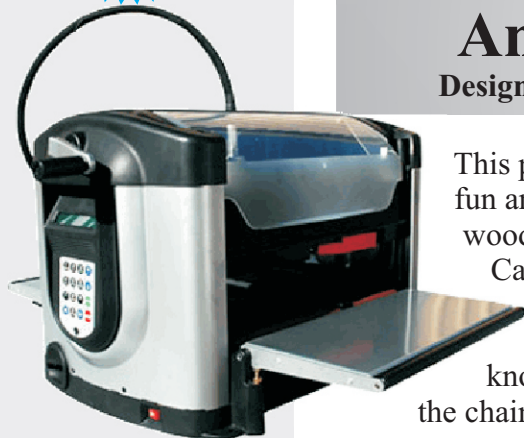
WOODWORKING SYSTEM

PROJECT
BASIC
DIFFICULTY

PROJECT TUTORIAL

Anchor Clock and Wooden Chain

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



This project demonstrates how fun and easy it is to create a wooden chain with your CarveWright machine. An Anchor Clock was thrown in for good measure - you know - so you could connect the chain to 'something'!

The chain pattern (PTN) as well as the Anchor pattern were created using the CarveWright Designer Modeling Suite and the Pattern Editor. The Modeling Suite and the Pattern Editor are available as powerful add-ons to your Designer software. Visit www.carviewright.com for details.



The project uses just the 1/16" Carving Bit and the 1/8" Cutting Bit. No other bits are required.

The completed Chain is about 19" long (but you can make it shorter or longer) and the Anchor is about 7" wide x 10" tall x 3/4" thick.

Main items you will need:

1) The Project Files (included):

- Wooden_Chain_Links.mpc
- Anchor.mpc

2) Boards with the following dimensions:

Chain Links: 0.5" x 5.5" x 24"

Anchor: 0.75" x 11" x 18"

NOTE: Do not use boards that are smaller than specified above. NOTE: Make sure the chain link board is a full 1/2-inch thick. Otherwise the machine will not accept it without a sled or jig.

3) Sandpaper, wood glue (a type that dries clear such as TiteBond III), wood stain and/or paint and clear finish

4) A 2 1/4" Clock insert. I used a model 15686 clock 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.



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(cont.)

STEP 1

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

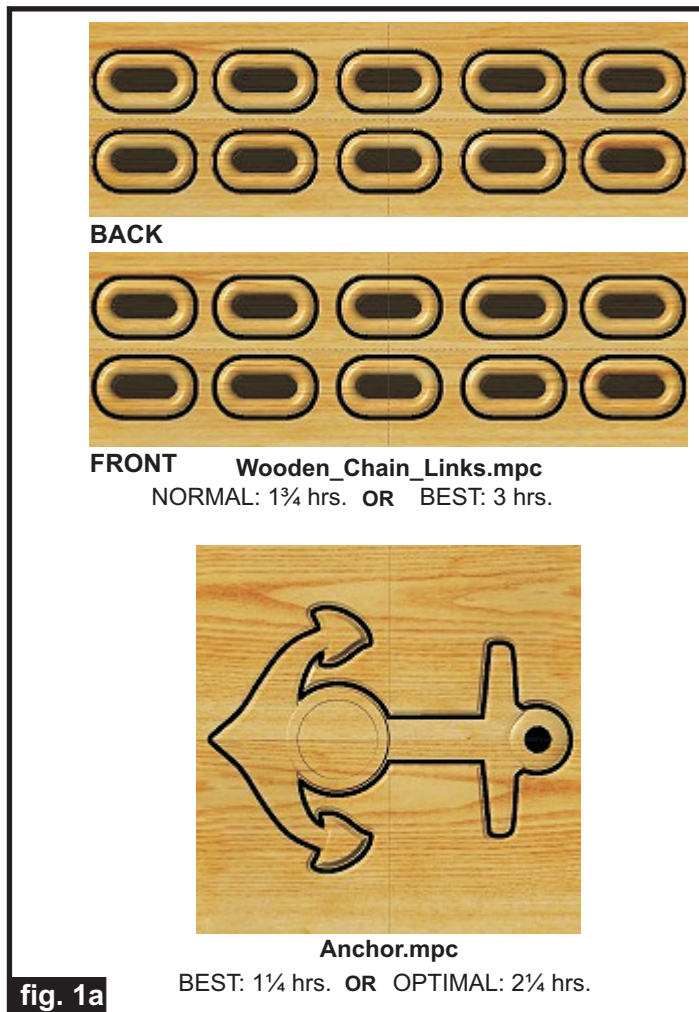


fig. 1a

All you need to do at this point is upload the project files to your memory card. (File/Upload).

During upload, you may or may not see a pop-up window with an “Auto-Jig” warning message (fig. 1b)

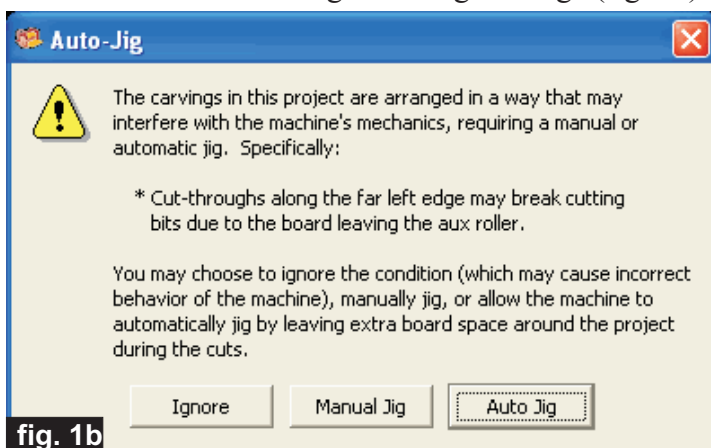


fig. 1b

If you do see the message, you may safely click on “Ignore” because the actual board will be large enough that it won’t cause any problems at all. After the project is compiled, select your desired File Quality setting. Click “OK” and upload the mpc project file to your memory card. Insert the card into your machine and load a board that measures the appropriate dimension specified for the particular mpc (see page 1 for board dimensions). Turn on your machine and proceed with the project setup in Step 2...

STEP 2

You will see “Project Menu” on your LCD display. Press “1” then scroll to the **Wooden_Chain_Links.mpc** project, and press the green ENTER button. This MPC is a **TWO-SIDED** carve. The machine will carve the links on the **BACKSIDE** first. Follow the additional prompts closely....

- **Stay Under Rollers** - press 1) YES
- **Press Enter to Proceed: Board (BACK)** Press ENTER
- **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 Carving Bit: 1/16" Carving** - Press ENTER. The machine will move the bit holder to the center.
- **Load Bit: 1/16" Carving** - Insert your 1/16" cutting bit, then press the green ENTER button. The backside carving will be performed.
- **After it is done with the back, you will be prompted to “Please Flip Piece”.** Raise the head of the machine to remove and flip the board.
- **Please Load Piece: Board** - Brush off the board, and flip the board over width-wise, top-to-bottom (**NOT** end to end! see fig. 2a). Put the board back into the machine (blank side up) and crank down the head.



fig. 2a

Flip the board over width-wise

(cont.)

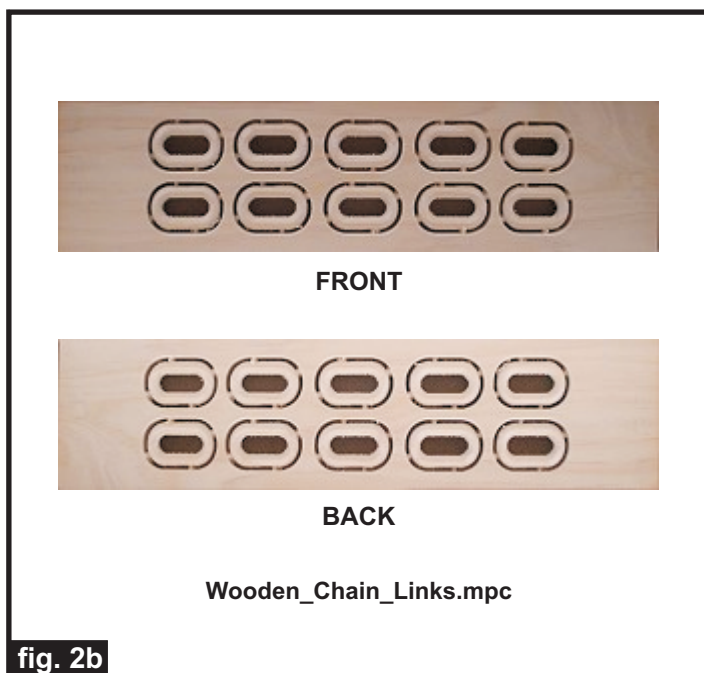
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(cont.)

STEP 2 (cont.)

- Press **ENTER** to Proceed (will measure board again)
- **Select Cutting Bit: 1/8" Cutting** - Press the green ENTER button. The machine will move the bit holder to the center of the machine.
- **Load Bit: 1/8" Cutting** - Insert your 1/8" cutting bit, then press the green ENTER button.
- **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.** Take out the 1/16" carving bit and insert your 1/8" cutting bit. Press the green ENTER button. The machine will now proceed to perform the cutouts as it moves around the component outlines. When the machine is finished, remove your board and clean your machine.

Your board will look like this. (fig. 2b)



STEP 2 (cont. for running the Anchor.mpc)

You will see "Project Menu" on your LCD display. Press "1" then scroll to the **Anchor.mpc** project, and press the green ENTER button. This MPC is a single-sided carve. Follow the 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 Drill Bit: 1/8" Cutting** - Press ENTER. The machine will move the bit holder to the center.
- **Load Bit: 1/8" Cutting** - Insert your 1/8" cutting bit, then press the green ENTER button.
- **Select Cutting Bit: 1/8" Cutting** - Just press the green ENTER button - nothing happens.
- **Select Carving Bit: 1/16" Carving** - Press ENTER. The machine will move the bit holder to the center.
- **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.** Take out the 1/16" carving bit and insert your 1/8" cutting bit. Press the green ENTER button. The machine will perform the drilled pockets and cutouts as it moves around the component outlines. When the machine is finished, remove your board and clean your machine. Turn off the power switch before removing your memory card. Your board will look like this.

(fig. 2c)



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(cont.)

STEP 3 - Separate and Sand

Separate all the pieces from the board with a utility knife or hobby saw. Sand all the components to remove the tabs, fuzzies and undesirable tool marks. Use a Dremel-type tool with various abrasive wheels and tips to make the job go faster. (fig. 3a, 3b, 3c)



fig. 3a



fig. 3b



fig. 3c

STEP 4 - Chain Assembly

You will need to break apart every other chain link in order to join the links together. (There are 10 links...five of them will be broken in half lengthwise along the grain.)

Clamp a link in a vise with about half of the link rising above the jaws of the vise. Use a block of wood and a hammer to sharply and quickly “knock” the top half off the bottom half. (fig. 4a, 4b) Repeat for the 4 remaining links.



Insert a link in a vise, with the top half extending above the jaws

fig. 4a

Sharply and quickly, knock the wooden block against the link to “snap” the link in half along the grain



fig. 4b

This creates a natural split, when glued back together, the seam can be difficult to detect. Keep the split halves with their mate. (fig. 4c)



Set aside one of the split links for later (this is the one that will connect the chain to the anchor).

fig. 4c

Glue the split links to join the solid links (except the split link that was set aside). Apply glue with a small paint brush. Use rubber bands as clamps while the glue dries and wipe away any squeeze out with a damp towel. (fig. 4d)



fig. 4d

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(cont.)

STEP 5 - Apply Finish

Apply stain/paint and clearcoat of your choice. Here's what I used on my Anchor Clock and Wooden Chain made from Select Pine:

Anchor

- Rust-Oleum Ultimate Stain - Black Cherry (fig. 5a)
- Bullseye Sealcoat as clear top coat (Bullseye Sealcoat is actually a clear de-waxed shellac...this is NOT the same as regular clear shellac which is NOT dewaxed)
- Krylon Clear Acrylic spray overall

Chain

- Minwax Natural Stain #209 - I dipped the chain in the can and hung it up to dry. (fig. 5b)



fig. 5a



fig. 5b

STEP 6 - Final Assembly

When the finish is dry, attach the chain to the anchor with the remaining link. Apply the finish to this last link after the glue has cured. (fig. 6a, 6b)



fig. 6a

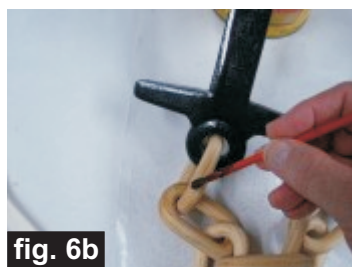


fig. 6b

Finally, install your clock insert to complete the project. (fig. 6b)



fig. 6c

IN CONCLUSION

I hope you enjoyed learning how easy it is to make wooden chains with your CarveWright machine!

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
- Rust-Oleum Ultimate Stain - Traditional Cherry
- Minwax Stain - Natural #209
- Disposable Brushes and Paint Rags



2¼" Clock inserts from www.klockit.com
We used part # 15686



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.carviewright.com/forum.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.



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