CarveWright™
WOODWORKING SYSTEM

1930's "Radio" Clock
Designed for CarveWright™ by Michael Tyler - www.carvebuddy.com

This project reminds us of a time when early wood-cased tabletop radios were once a staple in just about every home. Complete with "grill cloth and tuning knobs" this 1930's-style "radio" clock makes a great conversation piece!

The entire project is carved and cut out with just the two bits that came with your machine. The finished dimensions of the assembled 1930's Radio Clock are about 8¼" wide x 9¼" tall x 3½" deep.

Main items you will need:

1) The Project Files (included):
• Radio_Clock_Board_1.mpc
• Radio_Clock_Board_2.mpc

2) Boards with the following dimensions:
Board 1:   0.75 " x 9 " x 27 "
Board 2:   0.75 " x 9 " x 26 "

   NOTE: Do not use boards that are shorter in length than specified above.

3) Clock insert with 3 ¼ " face and 2 ⁷/₈ " mounting diameter (styles #15559, #15561, or #15562 from www.klockit.com)

4) Sandpaper, glue, wood stain, 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.
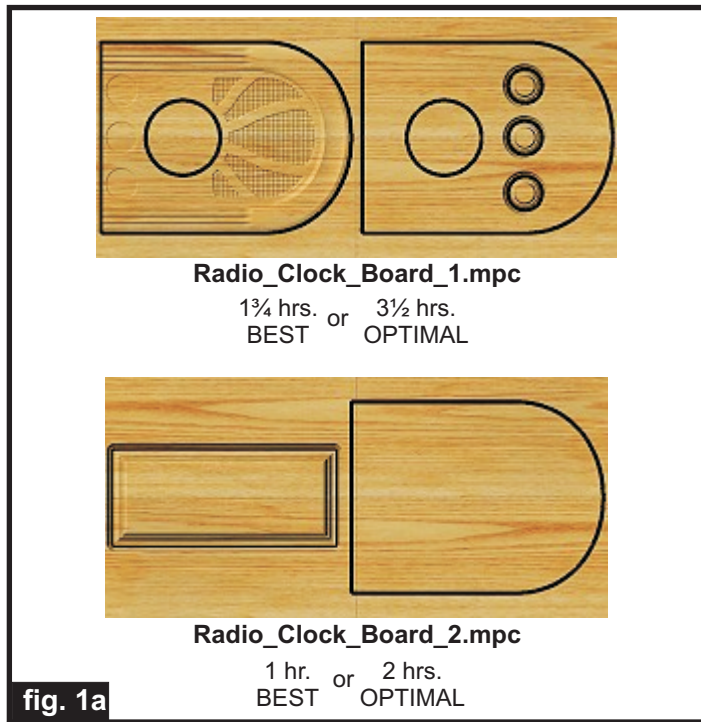
STEP 1
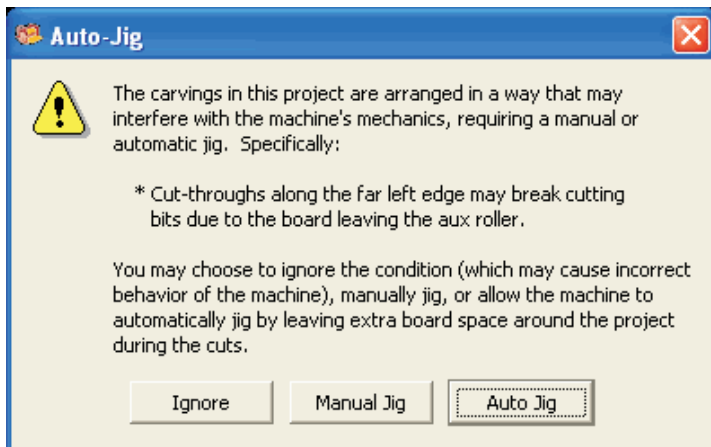Start your Designer software and open the .mpc files. (fig. 1a)

Radio_Clock_Board_1.mpc
1¾ hrs. or 3½ hrs.
BEST   OPTIMAL

Radio_Clock_Board_2.mpc
1 hr. or 2 hrs.
BEST   OPTIMAL

fig. 1a

All you need to do at this point is upload the project files to your memory card. (File/Upload). When you upload, you may or may not get a pop-up window with an "Auto-Jig" warning message (fig. 1b)

Auto-Jig

The carvings in this project are arranged in a way that may interfere with the machine's mechanics, requiring a manual or automatic jig. Specifically:

* Cut-throughs along the far left edge may break cutting bits due to the board leaving the aux roller.

You may choose to ignore the condition (which may cause incorrect behavior of the machine), manually jig, or allow the machine to automatically jig by leaving extra board space around the project during the cuts.

[Ignore]   [Manual Jig]   [Auto Jig]

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 "Best" or "Optimal" for the File Quality setting. **I recommend the "Optimal" setting for this project.**

Click "OK" and upload the mpc project files to your memory card. Insert the card into your machine and load a board that measures the appropriate dimension specified for the mpc's (see pg. 1 for board dimensions). Turn on your machine and proceed with the standard project setup in Step 2...

STEP 2
You will see "Project Menu" on your LCD display. Press "1", scroll to the **Radio_Clock_Board_1.mpc** project, and press the green ENTER button to select it. Then follow the additional prompts....

• **Stay Under Rollers** - press 1) YES

• **DO NOT RESIZE or SCALE any project!** If prompted, always keep the original size. No scaling!

• **How to Place** - press 1) Center

• **Cut Board to Size?** - press 2) NO

• **Select Cutting Bit: 1/8"Cutting** - Just press ENTER, since the 1/8" cutting bit is already installed.

• **Load Bit:1/8"Cutting** -Insert your 1/8"cutting bit, then press the green ENTER button. (homes, etc.)

• **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.** Remove the 1/16"carving bit, clean the chuck, insert your 1/8"cutting bit. Cutouts are always performed last, after all raster carving is completed. The machine will now proceed to perform the cutouts as it moves around the component outlines. It leaves little tabs to hold the parts in the board. When the machine is finished, remove your board and clean your machine of excess sawdust.

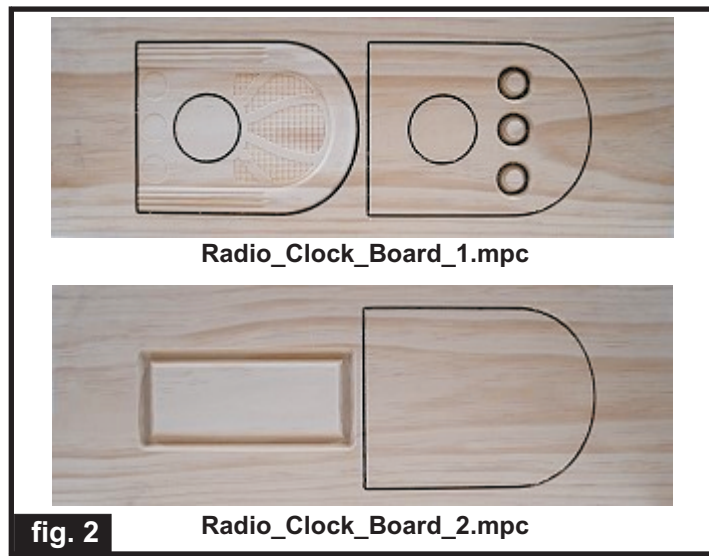Repeat the above steps for the **Radio_Clock_Board_2.mpc**. When finished, remove your board and clean your machine.

STEP 2 (cont.)
Your boards will look like this (fig. 2)

Radio_Clock_Board_1.mpc

fig. 2   **Radio_Clock_Board_2.mpc**

STEP 3
Separate the pieces from the board with a utility knife or hobby saw. (fig. 3a)

fig. 3a

Sand off the tabs, then glue the three main sections together. Clamp the parts until dry. (fig. 3b, 3c)

fig. 3b

fig. 3c

Remove the clamps and final sand everything. Sand the edges of the glued parts so they blend nicely. Use a Dremel-type tool with various 3M abrasive wheels to make the job go faster in the tight areas.
(fig. 3d)

fig. 3d

STEP 4
Apply stain/paint and clearcoat of your choice. Here's what I used on my 1930's "Radio" Clock project made from Select Pine wood:

"Radio" Clock Housing and Base:
• One coat water-based Zinsser Bulls Eye Ultimate Polyurethane Satin on the "grill cloth" (brushed on) (fig. 4a)

fig. 4a

• Minwax English Chestnut #233 overall
• 3 coats of Krylon Crystal Clear Acrylic gloss spray
• 2 coats water-based Zinsser Bulls Eye Ultimate Polyurethane Satin (brushed)

"Radio" Knobs:
• Sprayed with Krylon Brilliant Gold
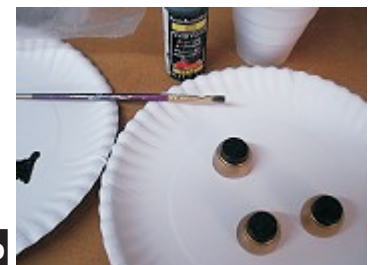• Brushed black Acrylic craft paint on knob ends (fig. 4b)

fig. 4b

STEP 5
Glue the knobs onto the clock housing.
fig. 5a)

fig. 5a

Finally, glue the clock housing assembly to the base and install your clock insert. (fig. (5b)

fig. 5b

IN CONCLUSION
I hope you've enjoyed your 1930's "Radio" Clock project!

Happy Carving!

Michael

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www.carvebuddy.com   **CarveWright Project Tutorial**
www.carvewright.com

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

• **TiteBond CA Wood Adhesive (medium),**
  and CA Activator from www.rockler.com

from WalMart™

• **Krylon Metallic Brilliant Gold**
• **Krylon Clear-Gloss Acrylic**

Other Miscellaneous Items Purchased at Lowes™ or Home Depot™

• **Minwax Stain - English Chestnut #233**

• **Disposable Brushes and Paint Rags**

• **Water-based Zinsser Bulls Eye Ultimate**
  Polyurethane Satin (quart can)

Clock inserts from www.klockit.com
You can use the 3¼" Insert
part # 15559, 15561, or 15562

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.carvewright.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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