

November 2008

### PROJECT TUTORIAL

## Festive Sleigh Project

Designed for CarveWright™ by Michael Tyler - [www.carvebuddy.com](http://www.carvebuddy.com)



Here's a nice project that can be used for a table centerpiece as well as a container for holiday treats!

The project is split up into 3 mpc's (project files) and consists of 12 components that are easily assembled. The sleigh is a fully 3D decorative and functional piece that you are sure to enjoy for many years to come!



Main items you will need:

**1) The 3 Project Files (included):**

- Sleigh\_Sides\_1131.mpc
- Sleigh\_Runners\_1131.mpc
- Inner\_Sections\_5\_Layout\_1131.mpc

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

**1 for Sides:** .75" x 9.25" x 34"

(nominal 1 x 10 x 34" long)

**1 for Runners:** .75" x 9.25" x 23"

(nominal 1 x 10 x 23" long)

**1 for Inner Sections:** .75" x 11.25" x 34"

(nominal 1 x 12 x 34" long)

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

**3) Two 1½" wood screws**

**4) Sandpaper, drill, wood glue, CA glue (super glue) for "tacking" parts in place, wood stain (and/or paint) and clear finish**

**5) A Dremel-type rotary tool with assorted sanding wheels and bits.**

<http://www.mcmaster.com> sells 3/32" diameter Dremel mandrels and the 3/4" 3M sanding wheels online. We use McMaster part # 4494A19 (80 grit), part #4494A18 (220 grit)

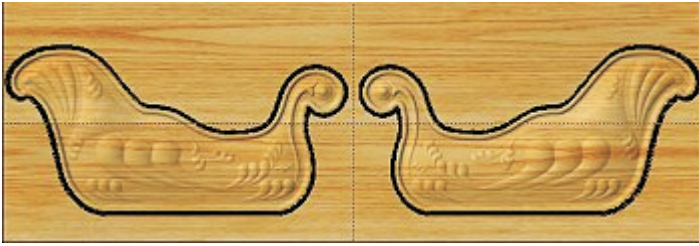


# Festive Sleigh Project

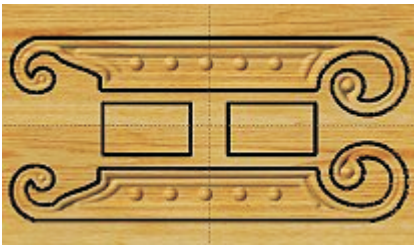
(cont.)

## STEP 1

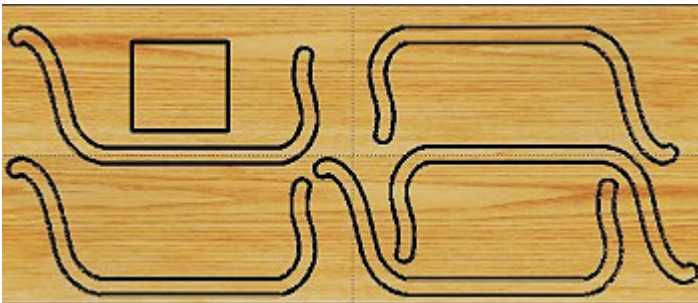
Start your Designer software and open the .mpc files. (fig. 1a)



Sleigh\_Sides\_1131.mpc



Sleigh\_Runners\_1131.mpc



Inner\_Sections\_5\_Layout\_1131.mpc

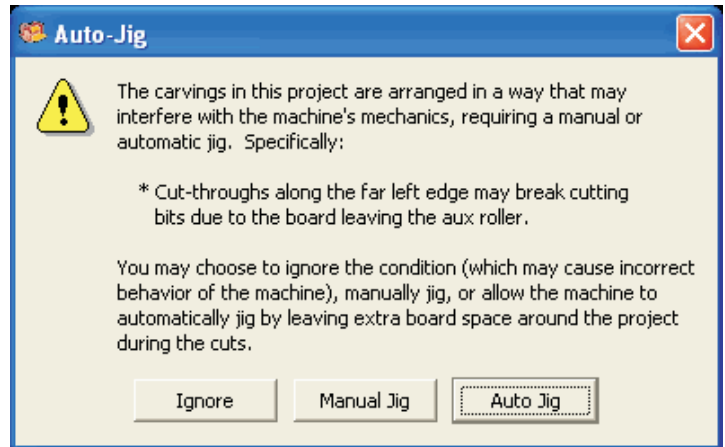
**fig. 1a**

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)

If you do see the message, you may safely click on “Ignore” because our actual boards will be large enough that it won’t cause any problems at all. After the project is compiled, select “Best” for the File Quality setting. Click “OK” and upload each mpc project file to your memory card.

Take and insert the card into your machine and load a board that measures the appropriate dimension specified for each particular mpc.

(see page 1 for board dimensions for each mpc)



**fig. 1b**

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” then scroll to the desired mpc project, and press the green ENTER button to select it. Then follow the additional prompts....

- **Stay Under Rollers** - press 1) YES
- **How to place on Length** - press 1) Center On Length
- **Cut Board to Size?** - press 2) NO
- **Load Bit: 1/8” Cutting** - Insert your 1/8” cutting bit, then press the green ENTER button. The machine will go through a series of homing steps and ‘finds surface’.
- **Select Carving Bit: 1/16” Carving** - Press the green ENTER button. The machine will move the bit holder to the center of the machine in preparation for the bit installation. 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, then load your 1/8” cutting bit, then press the green ENTER button. (Cutouts are always performed last, after all raster carving is completed.)

**NOTE: TOTAL** combined carve/cut time for **all three mpc’s** is about 6¾ hours all together.



# Festive Sleigh Project

(cont.)

## STEP 2 (cont.)

• After each mpc is finished, remove your board and clean your machine of excess sawdust. Repeat the above procedure for each mpc. The setup procedures are similar for each mpc, except the 1/16" bit will **NOT** be asked for nor used on Inner\_Sections\_5\_Layout\_.mpc.

## STEP 3

Separate all the pieces from the boards and remove the tab nodes around the cutouts. Sand all surfaces. Use your rotary tool with 3M sanding disks (220 grit) and/or a small file to help get into the tight spots. (fig. 3a)



fig. 3a

Glue the 5 inner sections together with both a liberal amount of wood glue and super glue to tack rapidly, then clamp or weight down while they dry. (fig. 3b)

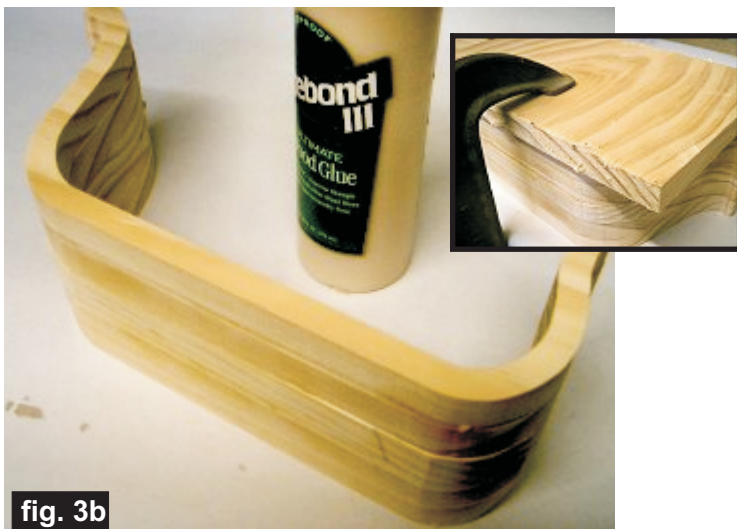


fig. 3b

## STEP 4

When the inner section assembly is dry, sand the laminated sections so they are perfectly flush with each other. Without altering the edge profile, use coarse sandpaper for shaping, and your rotary tool, sanding blocks and fine sandpaper until the laminated section is well groomed and smooth inside and out. (fig. 4a)

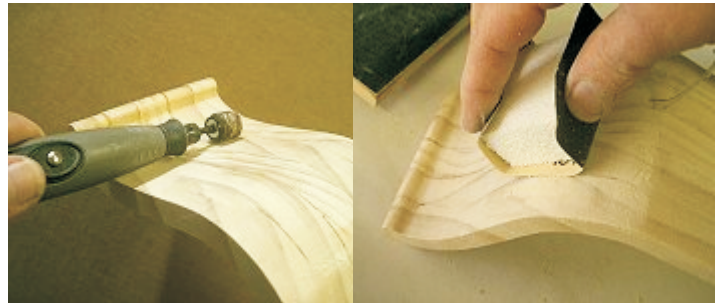


fig. 4a

Glue the sleigh sides onto the inner section assembly. Secure with rubber bands or clamps until dry. (fig. 4b)



fig. 4b

# Festive Sleigh Project

(cont.)

## STEP 4 - (cont.)

When dry, sand the inner section assembly to nicely blend in with the sleigh sides.

Glue the 3 pieces of the runner “box” together. (fig. 4c)



fig. 4c



Glue the runners to the sides of the box. Center the box to the length of the runners. (fig 4d)

fig. 4d

## STEP 5

Apply a light coat of thinned sanding sealer to all surfaces. After the sealer is dry, give everything another light sanding before applying the final stain/paint/clearcoat. (fig. 5)



fig. 5

Bulls Eye Sanding Sealer - thinned:  
2 parts sealer/3 parts Denatured Alcohol

Place the sleigh on the runners and drill two holes through the bottom of sleigh into the runner box for the two wood screws. (fig. 6)



TIP: Drill one hole, insert a screw to hold the sleigh in position while you drill the second hole.

You could optionally glue the sleigh onto the runners instead, but the screws allow disassembly for storage (just unscrew the sleigh from the runners and stack the runners upside down on top of the sleigh to make a more compact “package” for storage). In any case, keep the parts unassembled for finishing.

## STEP 6 - Finishing

Finish your sleigh as desired - there are unlimited possibilities! I primed the runners with red spray primer and sanded lightly before spraying with gold metallic paint (fig. 7)



fig. 7

I stained the sleigh with MinWax Cherrywood gelstain. When dry, I applied 4 coats of MinWax water-based polyacrylic clear satin.

The gold trim around the sleigh sides was applied by hand with a KRYLON Gold Leaf marking pen. I used blue masking tape to keep me from getting sloppy. (fig. 8)



fig. 8

NOTE: Apply any metallic color AFTER the clearcoat. A clearcoat over the metallics will dull the finish.

## IN CONCLUSION

After the finish is dry, simply assemble the sleigh to the runners with the wood screws and fill it with whatever holiday items you wish! Be warned - everyone who sees your finished Festive Sleigh is going to want you to make them one!

Happy Carving!

*Michael*