Rotary Lithophanes

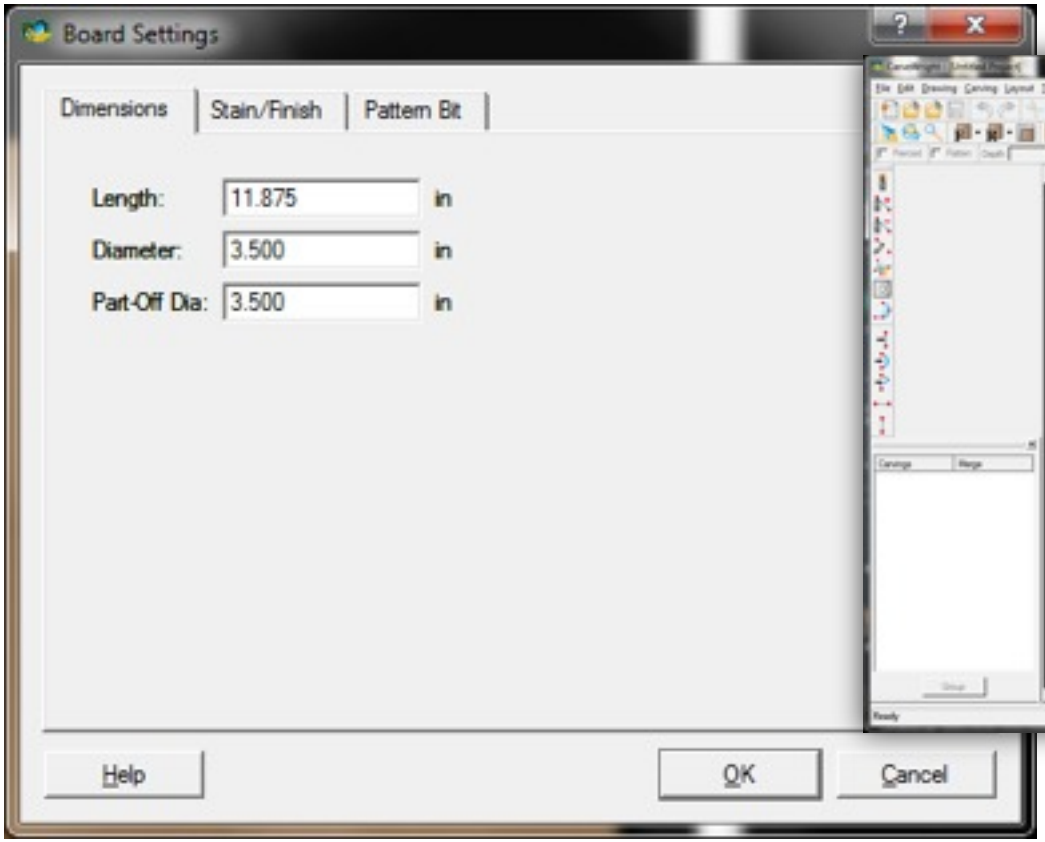
A Tutorial by CarveBuddy.com

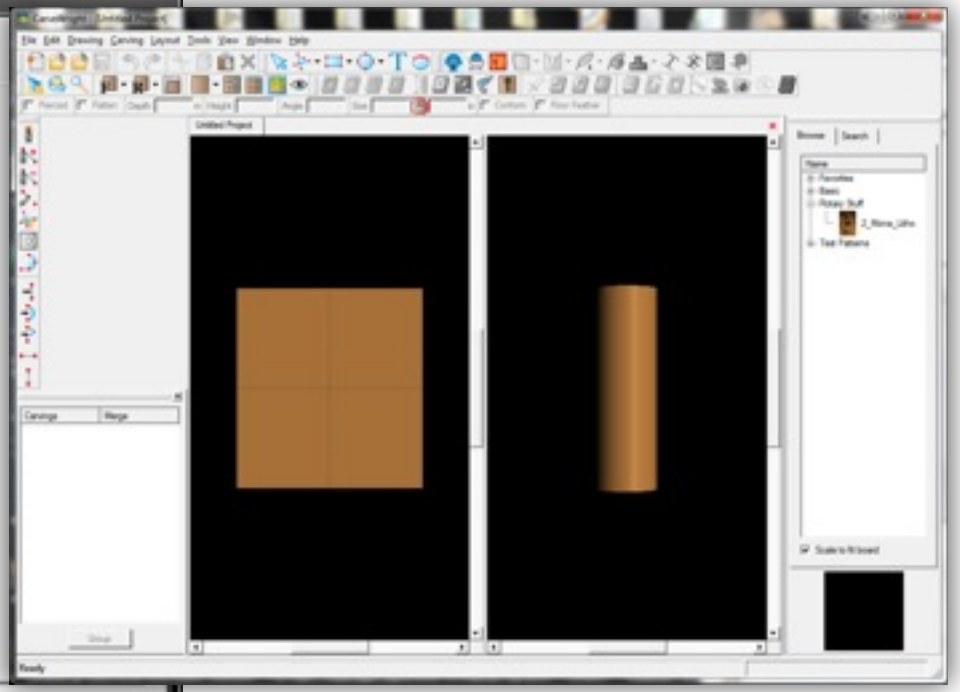
The CarveWright Rotary Jig can be used to create unique lithophanes using common PVC plumbing pipe.

The results are impressive! Now you can create unique lithophanes that most people have never seen before.

Create a Rotary Job in Designer

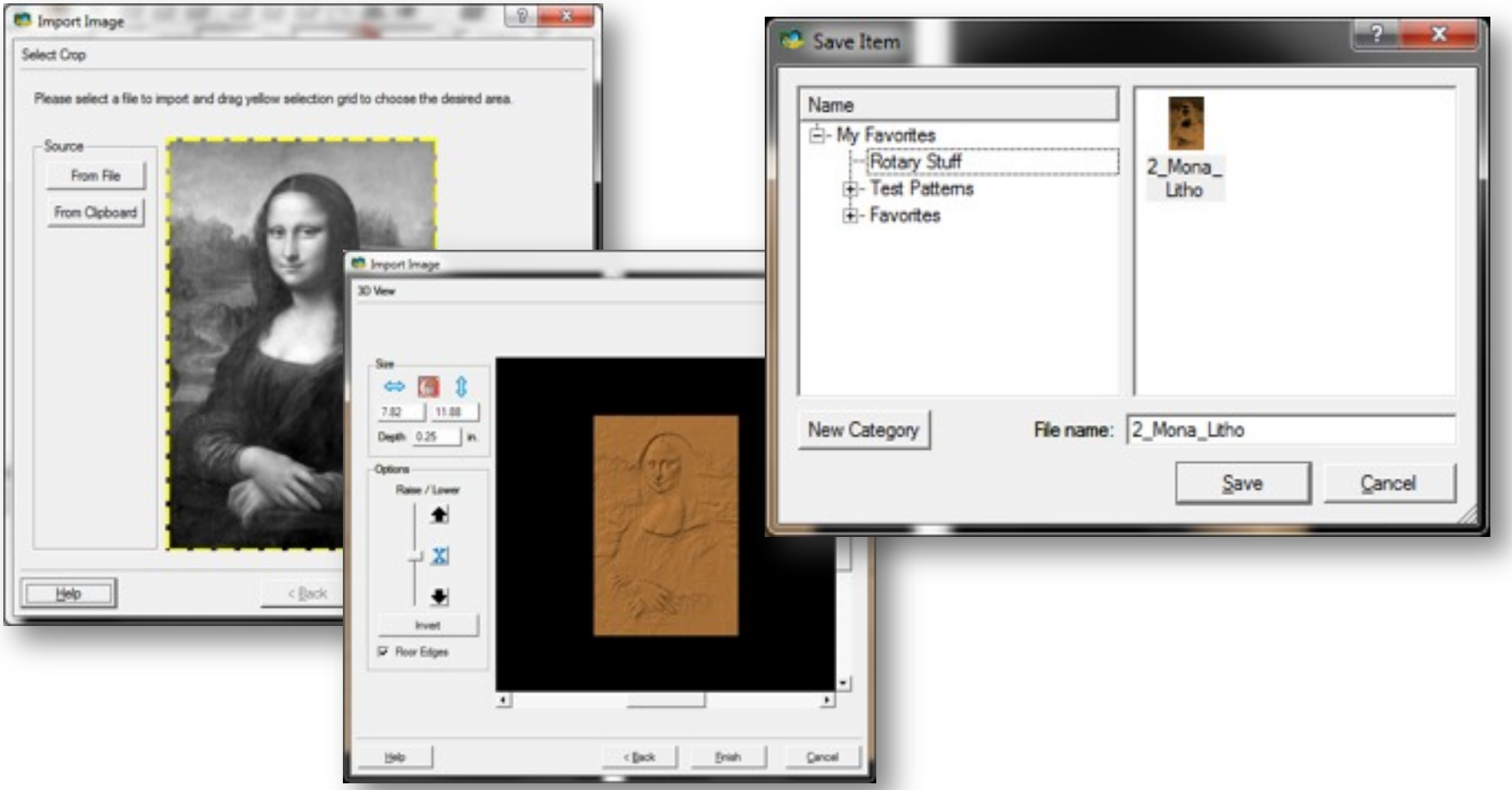
- Set the Board size to 11.875 inches long
- Set the Diameter and Part-off to 3.5 inches





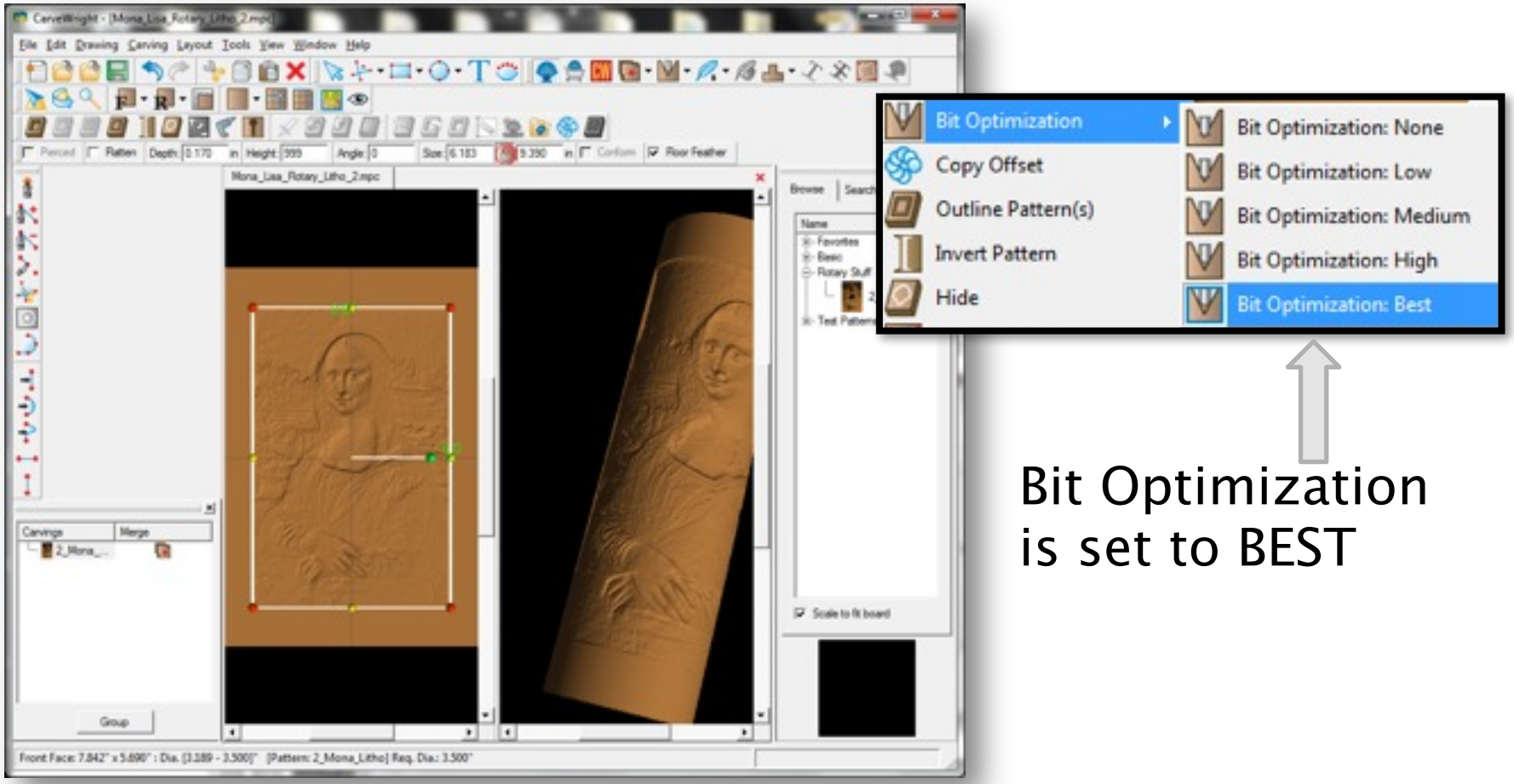
Import Your Photo

- Save it as a PTN



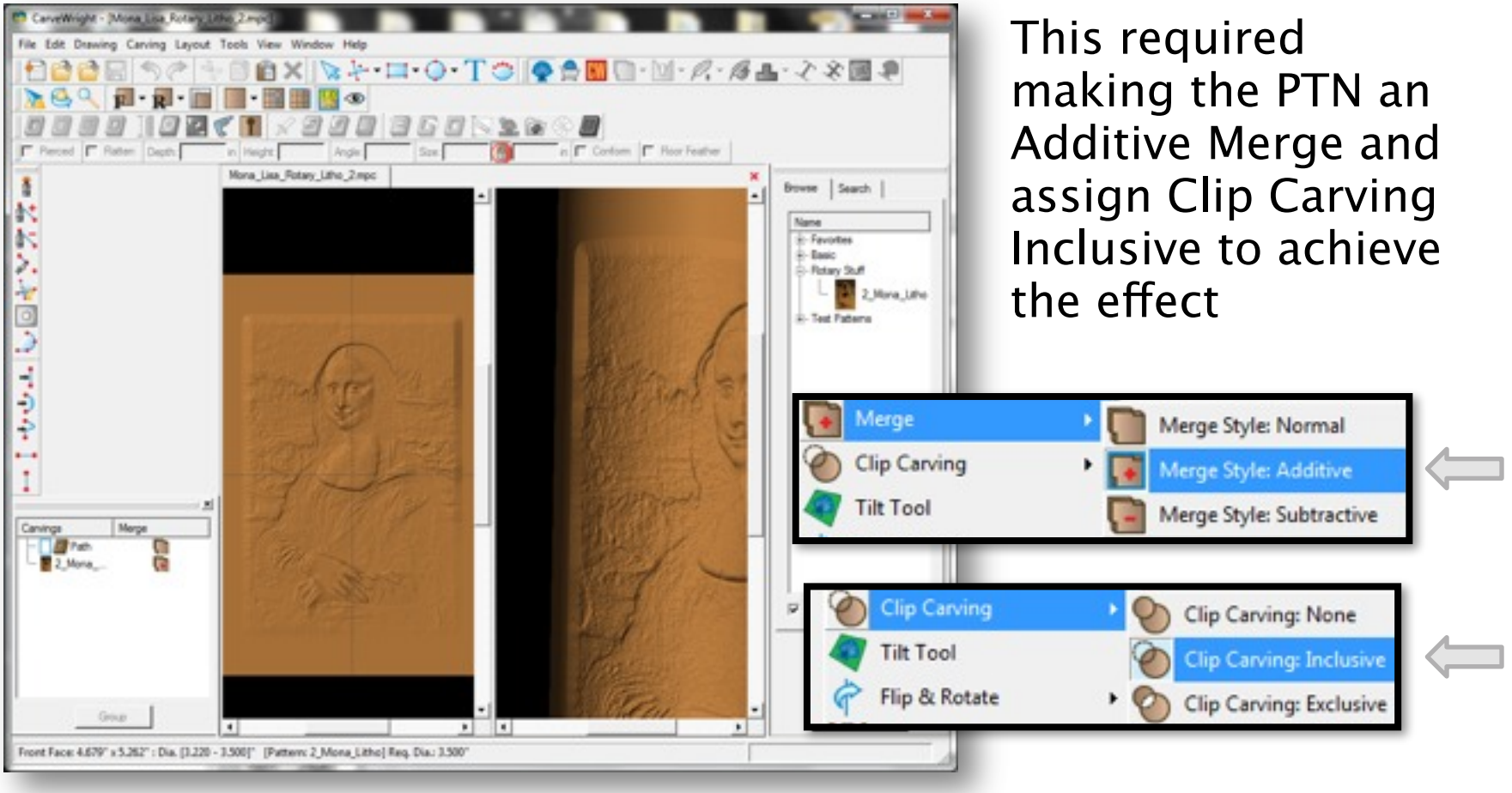
Place the Photo PTN on the board

- I set the Depth to 0.170 and Height to 999



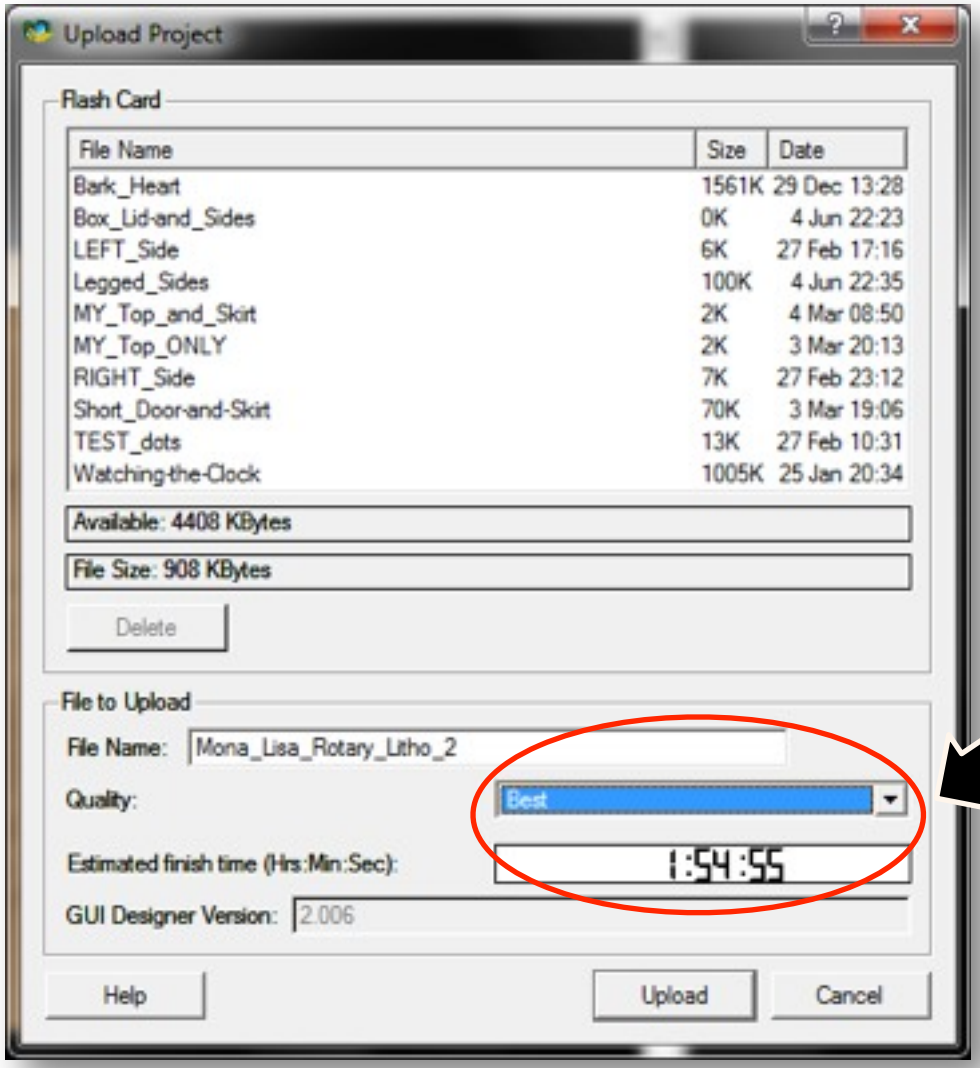
Bit Optimization is set to BEST

I decided to soften the edges by adding a feathered 0.170” deep Carve Region and place the photo within it.



This required making the PTN an Additive Merge and assign Clip Carving Inclusive to achieve the effect

Save the MPC and upload it to your Memory Card



I uploaded this project at BEST quality setting

Plug the Memory Card into your machine to prepare for the project run.

Materials Used:

- 3 and 4-inch PVC Pipe (INSIDE diameter)
- 3-inch to 4-inch Pipe Coupler/Adapter
- One 4-inch Test Cap
- Two 3 inch Drain Caps (for pipe ends while carving)
- One 3 inch Drain Cap (for top vent)
- Scrap wood and screws (for gear end mounting)
- LED puck light, Velcro, aluminum duct tape, metal tack

Materials Used:

Step 1

Cut a length of 3-inch pipe to 12-inches long.

I used a band saw to cut the pipe. The blue tape is to secure the pipe to my miter gauge so it didn't move or rotate while cutting.

Step 2

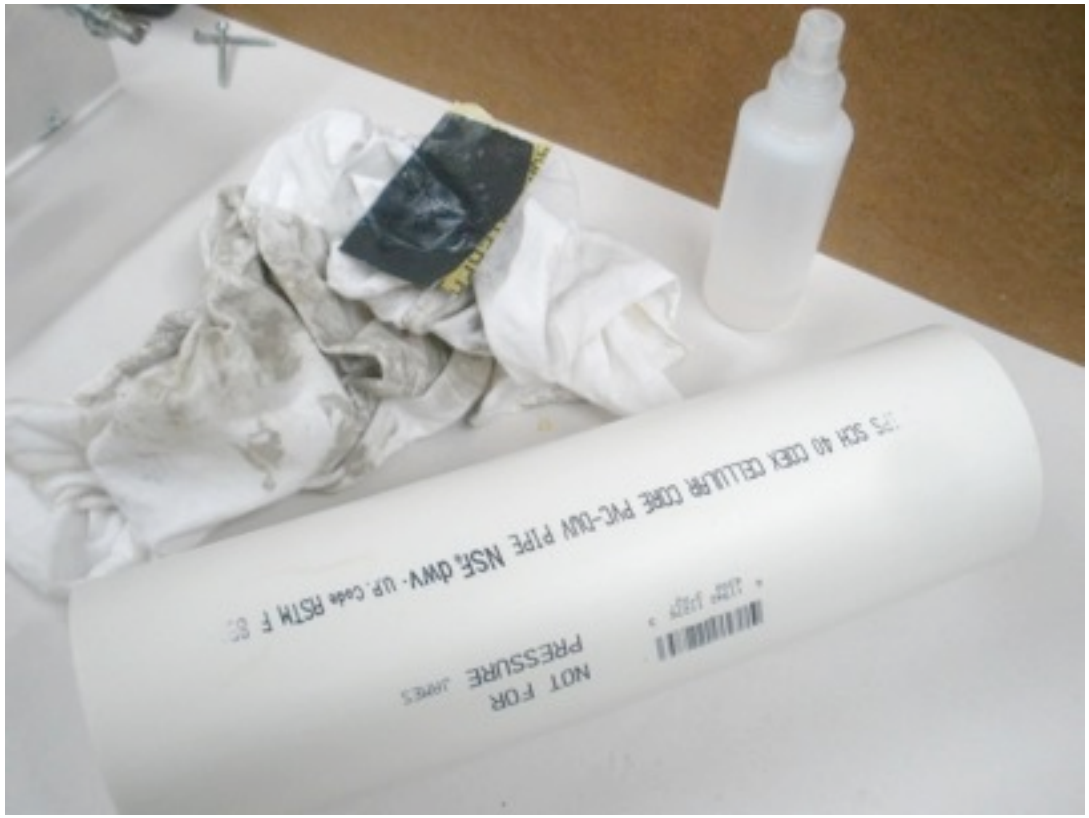
Cut a 7/8-inch ring from the 4-inch pipe.

Again, I used the band saw to cut the pipe.

Step 3

Sand off the lettering at the ends with 400-grit sandpaper.

I used wet/dry sandpaper and water to sand off the lettering.



Step 4

Cut a piece of wood from ¾-inch scrap. Hot glue the wood inside one of the drain caps. Clamp until set.

The drain caps from Home Depot have a circle dead-center in the cap. Perfect for use with the rotary jig!

Step 5

Insert two drain caps into the ends of the 3-inch pipe. The fit should be tight. Drill a 7/32-inch pilot hole in the wood for the jig s

Step 6

Install the pipe into the rotary jig. Drive two screws into the wood block end.

You may want to pre-drill small pilot holes in the wood block end for the two screws

Step 7

Wipe the pipe with a dryer sheet to reduce static cling, then insert the jig into your CarveWright machine.

Step 8

Calibrate and position the pipe so any remaining print will be carved away during the projec

NOTE:
You will set the project diameter to 3.5-inches.

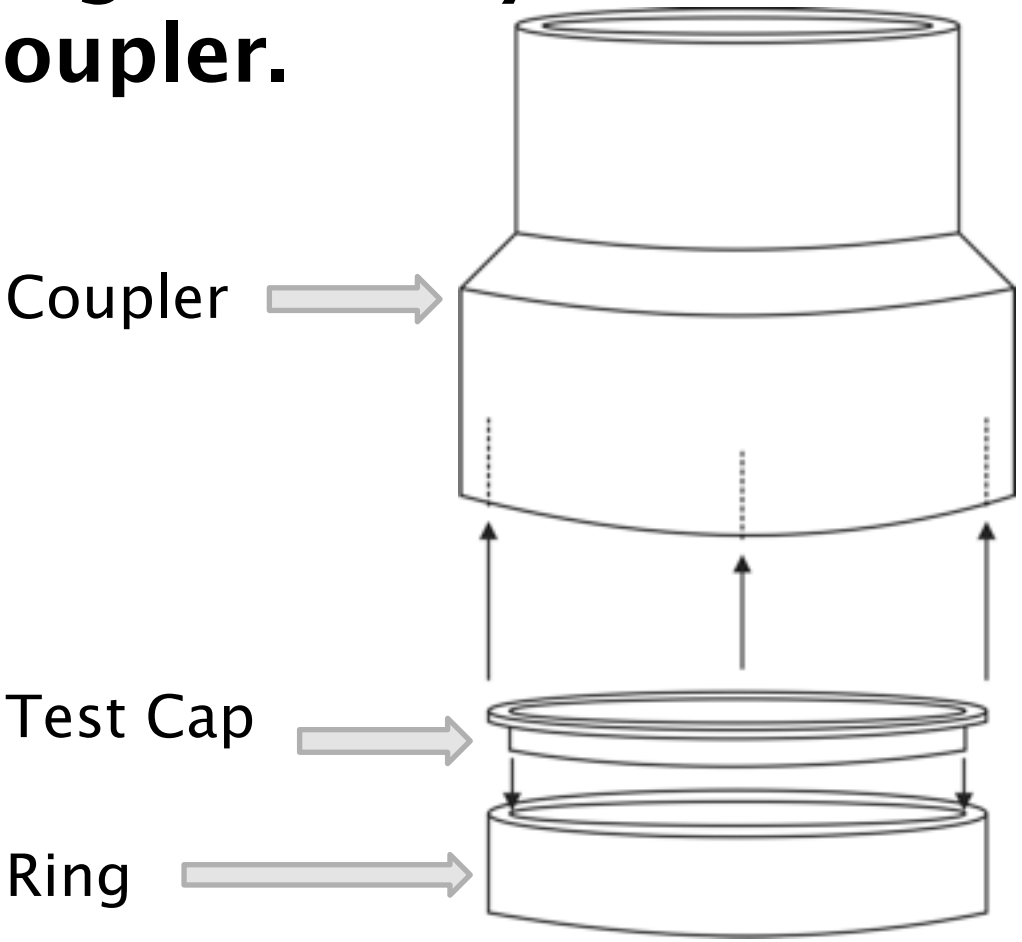
This is the OUTSIDE diameter of the “3-inch” pipe.

Step 9 – After Carving

Remove from the jig, remove the end caps. Brush off any clinging plastic with a stiff nylon brush. (Don't use metal

Build the Base – Step 1

Press the Test Cap into the ring. Slide the ring assembly into the bottom of the coupler.



The fit should be snug. Secure from the inside with aluminum duct tape, if necessary.

Build the Base – Step 2

Make a hole for the A/C cord of the LED puck light. Drill a tiny hole for the metal tack (if using a touch-type dimmer light).

If using a corded line-switch light, the metal tack won't be used.

Build the Base – Step 3a

Prepare the LED puck light for mounting.

I used a touch-light from Lowes. It toggles High, Low and Off when the touch pad is activated.

NOTE: If using a plain corded line-switch light, simply use Velcro to secure the puck light inside the base and you're done.

Build the Base – Step 3b

Create a touch 'conducting strip' of metal by folding a length of aluminum duct tape along the length. Tape the strip to the touch pad. Insert the tack on the other end.

Plug in the A/C cord. Test by touching the metal tack. It should toggle the light to high, low, and off.

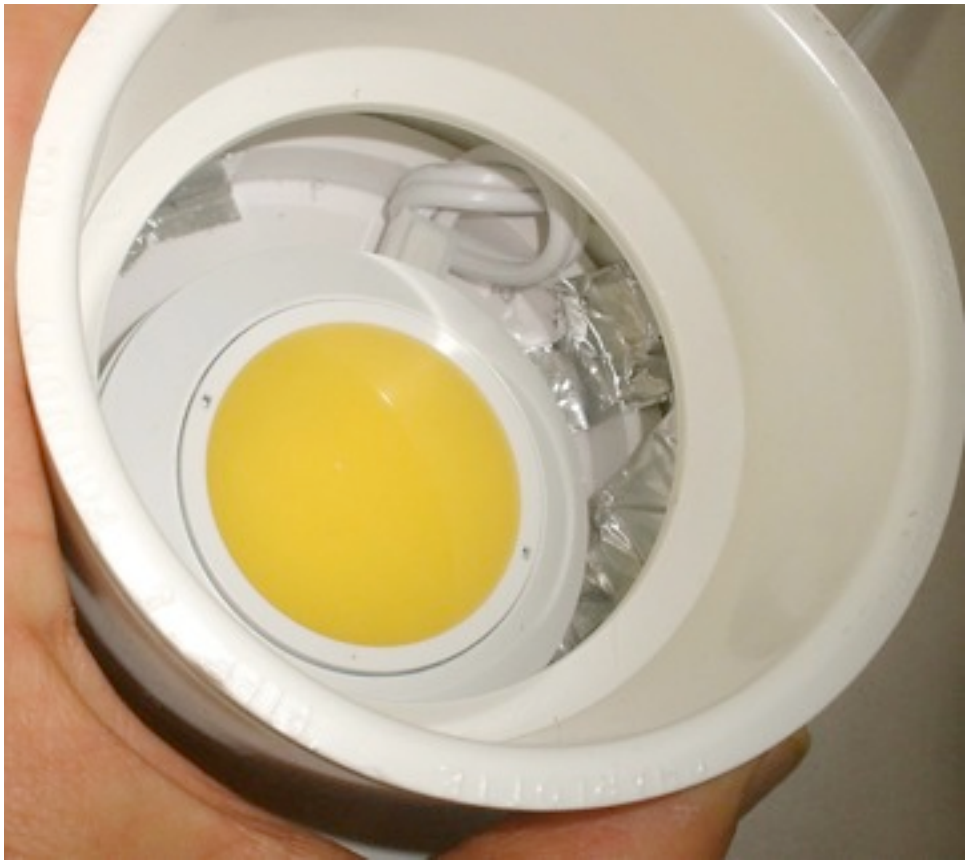
Build the Base – Step 3c

Insert the A/C cord into the base and place the Puck Light assembly into the base.

Route the metal conductor strip to the tack hole.

Insert the tack from the outside, then secure the conductor strip end to the tack shaft with more metal tape on the inside.

Secure the light with Velcro to the base



Final Assembly

Insert your lithophane into the base. Place a drain cap into the top of the tube.

Turn it on and enjoy!

www.carvebuddy.com