

## LIGHTHOUSE ORNAMENT

The ornament consists of a base, the body of lighthouse, a catwalk, light, cupola and roof.

### MATERIALS

Body of lighthouse: one piece of wood 1 1/2" x 1 1/2" x 4". If you want to laminate, you will need to glue up prior to workshop.

Base: one piece of wood 1 1/2" x 1 1/2" x 1/2"

Catwalk: one piece of wood 1 1/2" x 1 1/2" x 1/4". Drill 1/4" hole through center.

Cupola: If you want to use inside out turning, you will need to turn and glue up before the workshop or you can use a 1" x 1" x 1" piece with hole drilled in all four sides.

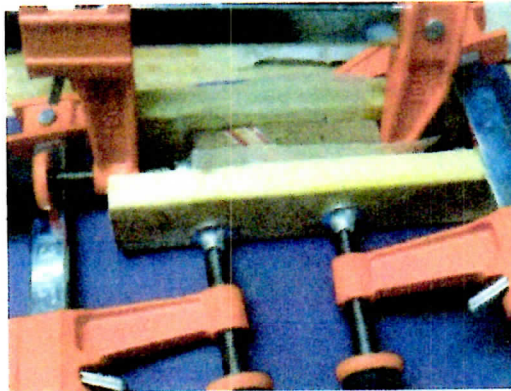
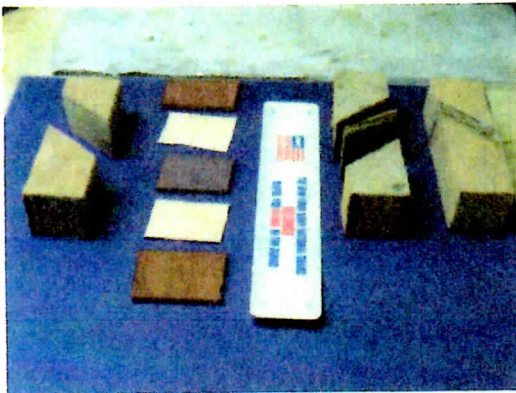
Roof: one piece of wood 1 1/2" x 1 1/2" x 1/4" (drill hole in center) and one piece 1" x 1" x 1". Turn tenon on each end with the smaller tenon to fit into hole. Glue together prior to workshop.

Top: one piece of wood 1/4" x 1/4" x 1/4"

"light" wood

### INSTRUCTIONS

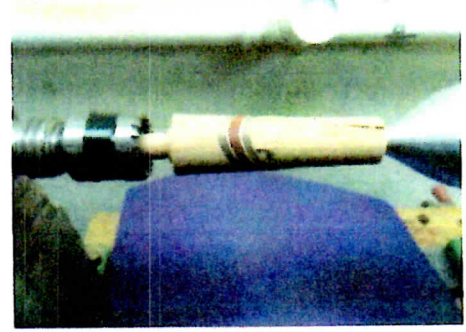
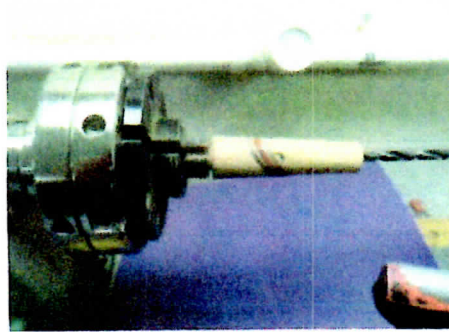
#### BODY



lots of waste blocks  
thick CA glue  
hot glue gun  
good pair of tweezers  
1/16 or smaller drill bit  
marker  
Jacobs chuck

Start with blank of 1 1/4 x 1 1/4 x 4 inches. If you want contrast in the body, cut on bandsaw at a 45 degree angle.

- Make a sandwich of contrasting woods. Additional pieces of veneer can be added for more color.
- Use a PVA type glue to assemble.
- After glue cures, mark center on each end and turn between centers to shape but slightly larger than desired diameter.
- Use a parting tool to turn a tenon on bottom end.
- Place bottom tenon in chuck, using the center in tailstock to align the workpiece.
- Use a 1/4 inch drill bit in Jacob's chuck to drill approximately 3/4 inch deep in top of body.



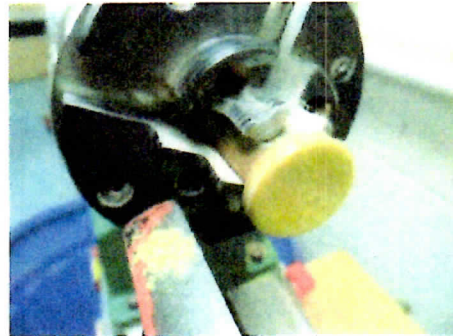
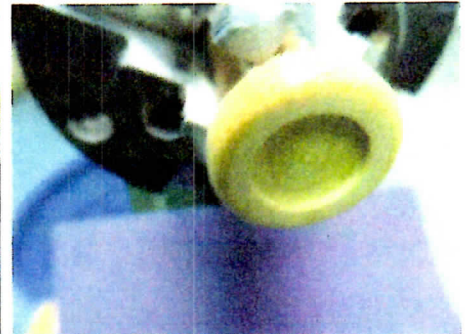
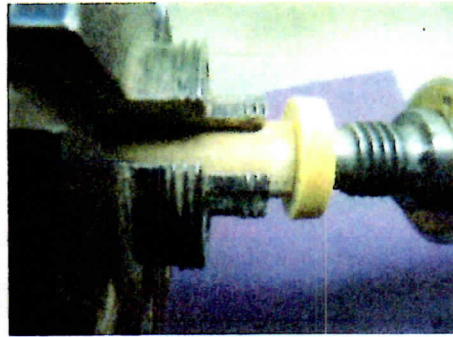
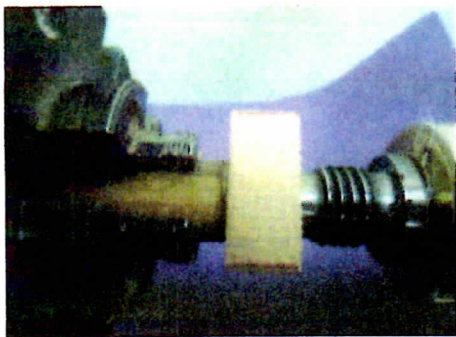


- Exchange Jacob's chuck for cone center in tailstock; square off top of lighthouse body. Turn to desired final size.
- Sand and piece is ready for finish.

## BASE

The base of the lighthouse is a piece of contrasting wood at least  $\frac{1}{4}$  inch wider than base of lighthouse body x  $\frac{1}{4}$  inch thick .

- Mark center of one side; mount on glue block. You can use two-sided tape or any other method. I prefer a hot glue gun as it is quicker and cheaper.
- Whatever you prefer to use, use a cone center in tailstock to center piece and provide clamping pressure.
- When the piece is firmly attached, turn base to desired diameter, slightly larger than bottom of lighthouse body.
- Remove tailstock and use a parting tool to hollow center of base to slightly deeper than tenon on the bottom of the lighthouse.
- Sand and curve outer edge.
- Remove base from glue block.
- Turn a tenon on the glue block to fit hollow in base. I make this a loose fit and use hot glue to attach clamp with tailstock and waste block next to base. When cured slightly turn bottom of base slightly concave.
- Sand and piece is ready for finish.



## CUPOLA

The cupola is 1 inch x 1 inch x 1  $\frac{3}{4}$  inch . If you want a round hole to show light, select a contrasting wood.

- Mark center of each side and drill hole on each face slightly deeper than diameter of blank. For mini lighthouse, this is the easier method .

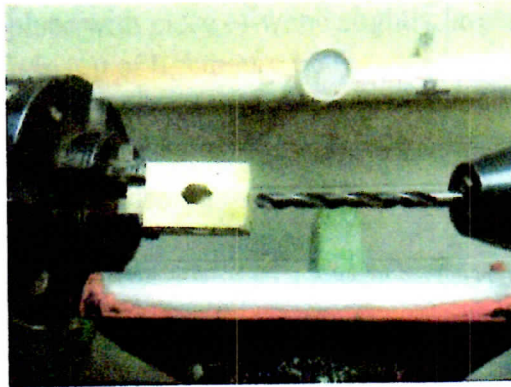
Or

- Use the inside out method. This gives you a lot more freedom in making shapes to show light.

Either way the rest of the turning is the same.

- Place work piece between centers.
- Turn a tenon on one end.
- Place in chuck and use the Jacob's chuck in tailstock to drill the same size hole that was drilled in the top of the lighthouse body.
- Replace Jacob's chuck with a cone center. Turn cupola to desired shape and size, using a parting tool.
- Turn a tenon 1/16 of an inch on the top of the cupola.
- Sand piece and part off.
- Cupola is ready to finish.

*1/4" drill bit best depends on size of lighthouse*



## CATWALK

Select a piece of contrasting color at least 1 inch larger than bottom of cupola.

- Mark the center and drill hole the same size as before.
- Place waste block in chuck and turn tenon to match hole in catwalk.
- Remove cone head from cone center.
- Place coneless center in tailstock. Use hot glue to attach catwalk to waste block using the tailstock to clamp.
- When cured, turn to desired diameter. Be sure to leave enough space to allow spheres to be placed. Slightly indent the bottom of catwalk.
- Sand.
- Remove from waste block and re-glue bottom of catwalk to waste block. Make sure you have removed old glue from waste block before gluing.
- Turn upper face to desired thickness, slightly indenting it.
- Sand and it's ready to finish.