

# TURNING AN HEIRLOOM CHRISTMAS ORNAMENT

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## STUDENT TOOLS:

3/8" spindle gouge	hollowing tools
3/8" bowl gouge	wall thickness gauge
1/4", 1/2" skew	caliper
Detail gouge	roughing gouge
1/2" drill bit	Jacob's chuck
Sandpaper (120-600 grit)	finish of your choice
**Chuck with regular jaws and small jaws	

## TURNING AN ORNAMENT AND A FINIAL:

### WOOD:

Ornament—Use a wide variety of native hardwoods or soft woods (mesquite, maple, sycamore, pecan, bois d'arc, elm, mahogany, holly, old Christmas tree)

NOTE: Exotic woods may be too heavy for the ornament globe.

Finial—Hardwoods (ebony, blackwood, bloodwood, purple heart, cocobolo, mesquite, hard maple, etc.)

### DESIGN: (Traditional globe shape)

1. Select globe and finial woods that are complimentary in color. (Usually, darker finials look more pleasing.)
2. Use the Golden Mean for a pleasing proportion. (1:1.618, or 1/3:2/3, or 2/5:3/5) The Golden Mean was first identified by ancient Greeks and used in pottery for perfect proportion.
3. Size of globe—Ornament globes in the 2"-diameter size are generally pleasing.
4. Drilling the hole—I like to use a 1/2" drill bit and drill the hole all the way through. Tenons for both the top and bottom finials will be 1/2".
5. Hollowing—a variety of small hollowing tools are available from various vendors, however, I regularly use hollowing tools made from Allen wrenches. (I'll have some for students to use)
6. Finial—Turn a delicate finial using a variety of cuts. Don't leave the finial looking too "heavy." Avoid striving for symmetry in the finial cuts. Asymmetric design is easier to achieve and easier on the eye.
7. Globe—The globe should be thin-walled (1/8" or less). A flattened sphere may appear more pleasing than a round one.

### PROCEDURE: Hollowing the Globe

1. Use a bowl gouge, spindle gouge, or roughing gouge to turn the cylinder to approximately 2" in diameter.
2. Shape the globe with a spindle gouge, leaving approximately 1" of thickness connected to the waste wood.
3. If wood is soft or fibrous, use careful cuts with a spindle gouge (closed flute) or skew. Do not use a scraper; it tears the wood fibers. NOTE: If minor tear-out occurs, apply Minwax 209 natural stain or thinned lacquer

and wet sand with 150, 220, 320 grit paper. Repeat applying 209 or lacquer and sanding until tear-out is filled.

4. Drill a hole (approximately 1/2") completely through the length of the globe. Either mount the drill bit in a Jacob's chuck in the tail stock or use a drill bit that can be mounted directly into the tailstock.
5. Use a hollowing tool to hollow the first half of the interior. Check thickness often with a thickness gauge.
6. Use 3/8" spindle gouge to hollow the bottom half of the globe. (Be careful not to cut through the wall.)
7. Decorative cuts (beads, V-grooves) may be added to the top or bottom of the ornament.
8. Sand through the grits (unless you have already sanded to remove tear-out) and apply a finish of your choice (lacquer, wipe-on poly, waterlox, etc.) Wax and buff. (This step may follow parting off.)
9. Part off globe with a flat cut.

#### PROCEDURE: Bottom Finial

1. It may be turned from the tenon end or the pointy end first. I start with the pointy end.
2. Use a detail gouge or a skew to begin shaping the point. Tiny v-cuts or beads can be added along the finial. Keep the Golden Mean in mind, as well as proportion. Once the delicate features have been cut, don't go back to them as the thinned wood will easily twist off. Sand as you go.
3. As you approach the thickest portion that will attach to the globe, be sure to undercut the portion that will join to the globe.
4. Measure the opening on the globe with calipers and match the size of the finial tenon to that opening.
5. Apply finish.
6. Part off the finial.

#### PROCEDURE: Top Finial

1. Using the same wood as the bottom finial, select a design that will complement that finial but in a much shorter size.
2. Begin with the tenon that attaches to the globe. Try to get a snug fit.
3. Make sure that the portion that fits over the globe is wide enough to cover the hole. Undercut for a better fit.
4. Beads, v-cuts can be cut to enhance the design but should not overwhelm.
5. Leave enough area at the top of the finial to attach a screw eye.
6. Sand and apply finish.
7. Part off the top finial using a detail gouge or skew, depending on the shape—flat or curved.

#### ASSEMBLY:

1. Drill a tiny hole in the top finial to make it easier to insert the screw eye. I use a Dremel mounted in a Dremel drill press.
2. Insert the screw eye.
3. Use medium CA glue or wood glue on the tenon and glue the top and bottom finials into the globe. If you have a very loose fit and you need more time to line up the finial with the globe, use Titebond wood glue and hold the finial in place for a minute or so.

#### RESOURCES:

1. Screw eyes—Woodworks, Ltd. At [www.craftparts.com](http://www.craftparts.com) (\$2-4 per 100, 1/32 or 1/8" interior dimension; brass and silver)
2. Allen Wrenches—Industrial supply houses (longer shaft for easy mounting into a handle)

#### HELPFUL HINTS (I hope):

1. Use dry wood for Christmas ornaments
2. Use endgrain material or burls
3. Choose closed grain hard woods for the finials. You can get away with softer woods for the globes, if you use careful cuts.
4. Take time to shape the globe and the finials. Form and proportion are everything.
5. Higher lathe speeds and light cuts will yield a cleaner cut.
6. Keep your tools very sharp when making these delicate cuts.
7. Wear eye protection and dust mask.