HELEX CUTTING ON GOBLETS

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Through this handout, I hope to explain my process for turning a Helex Goblet. Although I am showing you this on a goblet, the same layout process can be used on any project you want to spiral.

First and foremost, have fun on your projects, but be safe, no project is worth getting injured over.

TOOLS:

Lathe, Lathe tools, Chuck, Starter drill (optional), ¼" Brad Point Drill, ¼" Long Brad Point Drill, Small Round Rasp, Chain Saw File

Materials:

2 ½" x 2 ½"x12" Wood Blank ¼" Dowel Rod ¼

Sandpaper

Finish

I make my goblets in three pieces. The cup or bowl, the stem and the base. During the turning process, the base will not be separated from the avast wood until the last thing. If you wish not to put an insert in the stem, the process is the same except the goblet will be made in one piece not three. As far

as wood selection, you can use most hard woods, I like Ebony with Holly insert, Holly with Walnut insert and Bradford Pear with Walnut or Ebony insert.

1. Turn the cup and leave a ¼" tenet on the bottom. The tenet is so you can glue it back to the stem later. Before parting off, it is best to do all you're sanding on the cup.
2. Part a section off the stock for the stem and set aside. Turn the base with a ¼" tenement on the top of the base. I like to start to part the base off, but DO NOT part it off all the way. Make sure you leave plenty of wood for good stability. Unscrew chuck with base still in it and set aside.
3. Drilling the center section, I first use a starter file to get the hole started down the center. A starter drill is a short drill. Next I use a standard brad point drill and drill as far as possible. Then I use a long brad point to drill the rest of the way. Make sure you drill slow and clean out the drill so it does not build up with chips. Build up of chips can make the drill walk off center.
4. Glue a dowel into the stem and recess both ends by about 1/4 to 3/8 of an inch. The dowel must be loose in the hole (smaller, about 1/64") so there is room for glue. I use titebond glue. I put glue on the stem then I stand the stem up on a board and put glue down the hole. Then push the dowel down this center, so the glue pushed up and around the side of the dowel.
5. Put chuck with the base back on the lathe. Glue the base stem and cup together and bring tail stock up to hold and alien goblet. After glue is dry, turn and blend stem into cup and base. Turn stem to be spiraled to about 3/8 of an inch.
6. To layout spirals, draw four parallel lines down the stem 90 degrees apart. Draw lines around the stem about 3/8 of an inch apart. (The closer the lines the quicker the spiral, the farther apart the longer the spirals). Connect the opposite corners of each square to cause a spiral line.
7. With a small round rasp, start your cuts on the spiral lines. Remove wood in this manner until you just see the dowel rod in the middle. Now use a chain saw file on the grooves made with the rasp. This will smooth the spiral out.
8. Sand, part off and finish.