



Checkerboard-63 Ornament

How to make it

(<https://bebobsturnings.com/ornaments/checker-board-63/>)

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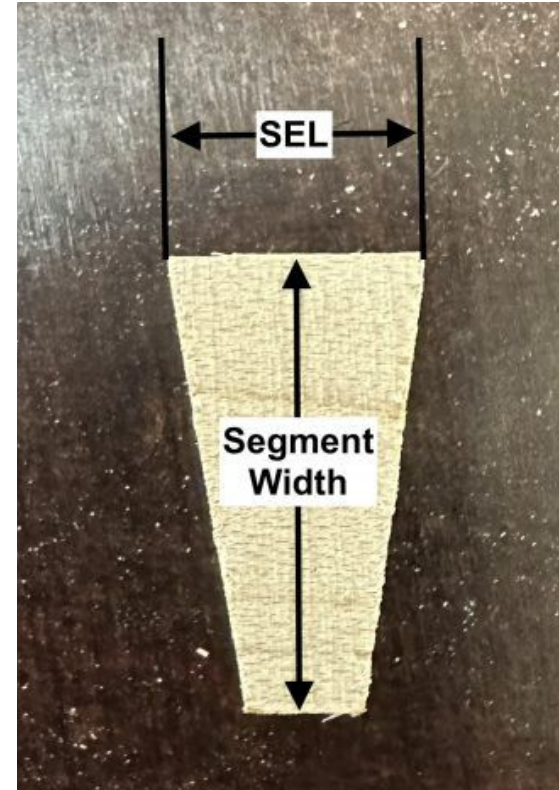
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- Hand-drawn diagram of a staircase with 4 steps. The vertical axis is labeled with 0, $\frac{1}{2}$, $1\frac{1}{2}$, and 0. The horizontal axis is labeled with $1\frac{1}{2}$. The steps are labeled with their respective dimensions: $1\frac{1}{4}$, $\frac{1}{2}$, $1''$, $1''$, $1''$, $1\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{1}{2}$. Two blue curves are drawn, representing the profile of the staircase.



Definitions

There are a few definitions that you need to understand in order to use the data in the table:

- Segment Thickness = This is the thickness of each segment; thus, the thickness of the ring.
- Segment Width = This is the width of the strip of wood from which you will be cutting the segments.
- SEL = The SEL is the length of the front of the segment (also referred to as Segment Length.)





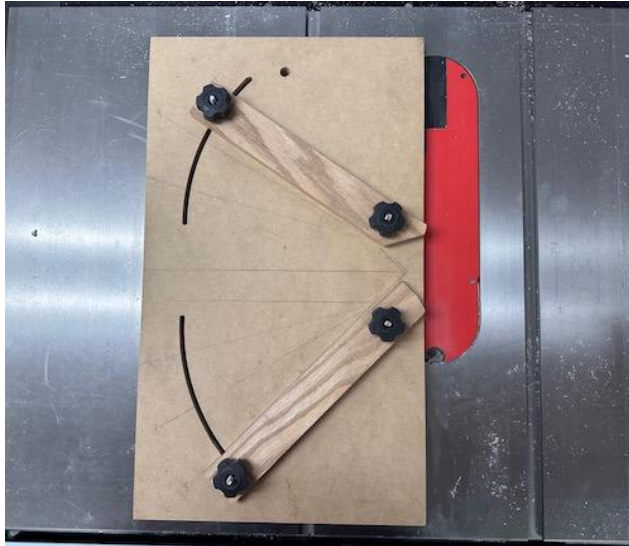
<https://bebopsturnings.com/wp-content/uploads/2023/04/Checkerboard63.xlsx.zip>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Plans for 3 inch ball * 12 segments per ring * finished ring height 7/16" * bottom and top ring is 7/16" solid * 1/4" wall thickness * rough segment thickness 9/16"					Fill in fields in Yellow								
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														



Wedgie Sled Choice

Homemade



Store Bought



Peter Markem Segmented Sled



Using a Wedgie Sled
(<https://bebopsturnings.com>)



Turning Segments into Rings

- What do you need?
 - Sticky Tape
 - Flat Surface
 - Glue
 - Razor Blade
 - Hose Clamp
- How to Glue up Rings Article:
<https://bebobsturnings.com/tips/segment-gluing-technique/>
- Watch me do it on YouTube: <https://youtu.be/4z1fqTByIU>

BUT for now watch me do it live



Prepare the End Blocks

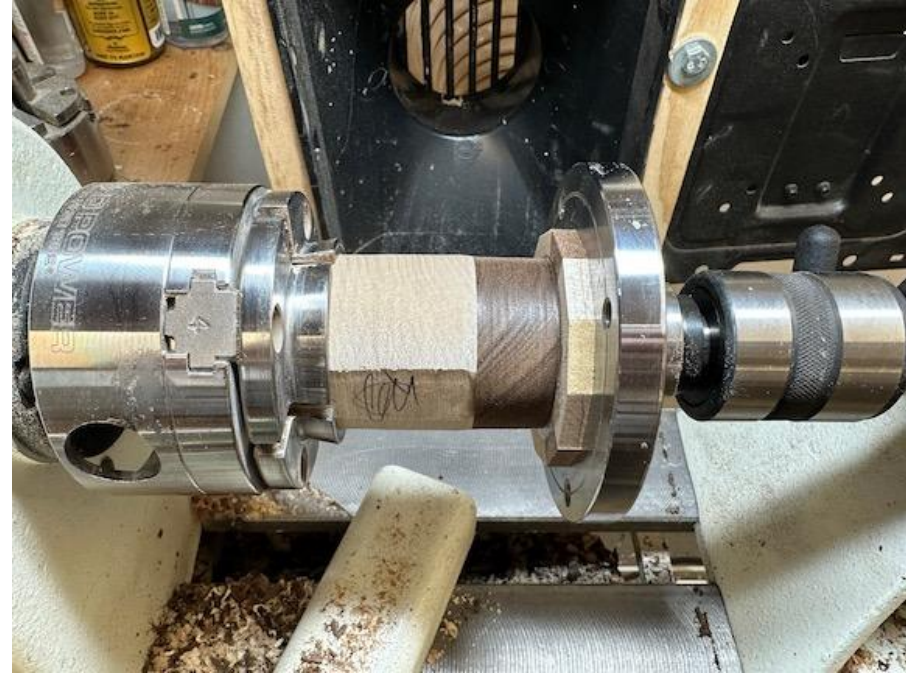
1. Glue up end blocks. I use maple and walnut
2. Mount the end blocks between centers using pressure to hold the two parts together. (Do not glue them)
3. Turn tenons on both end
4. Separate and chuck up each side and make the walnut as flat as possible





Gluing up the Rings

- Glue on 1 ring at a time using the lathe as a clamp
 - I put them together on the table
 - Move them to the lathe to clamp
 - Clamp for 5 minutes
 - Then check next ring and if needed true it up
- Glue 2 rings to the walnut for the top
- Glue 3 rings to the walnut for the bottom





Hollow and Drill

- Using the tenon, chuck up the bottom and Hollow it out.
 - I shoot for $\frac{1}{4}$ wall size
 - Mark the outside and inside diameters before hollowing
- Using the tenon, chuck up the top and Hollow it out
- Drill the top with a $\frac{3}{8}$ " drill bit.
 - This will hold the topper later





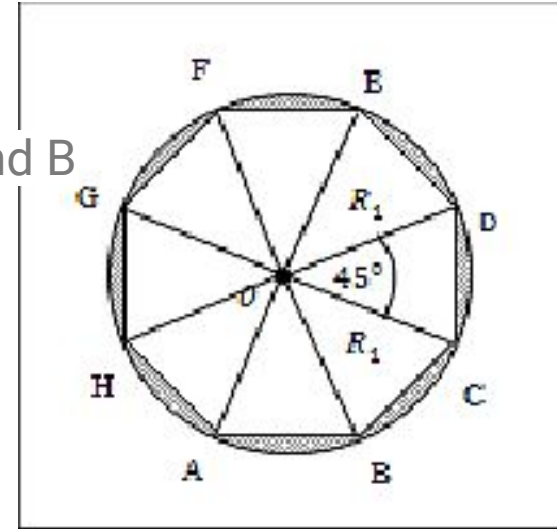
Glue The Two Halves Together

- Next we glue the bottom and top together.
- When it dries we are finally ready to turn the ornament.
- I use the octagon/hexagon method to turn a sphere
 - I have seen it called both.
 - I describe the process in my blog
- Let's see if I can make an ornament



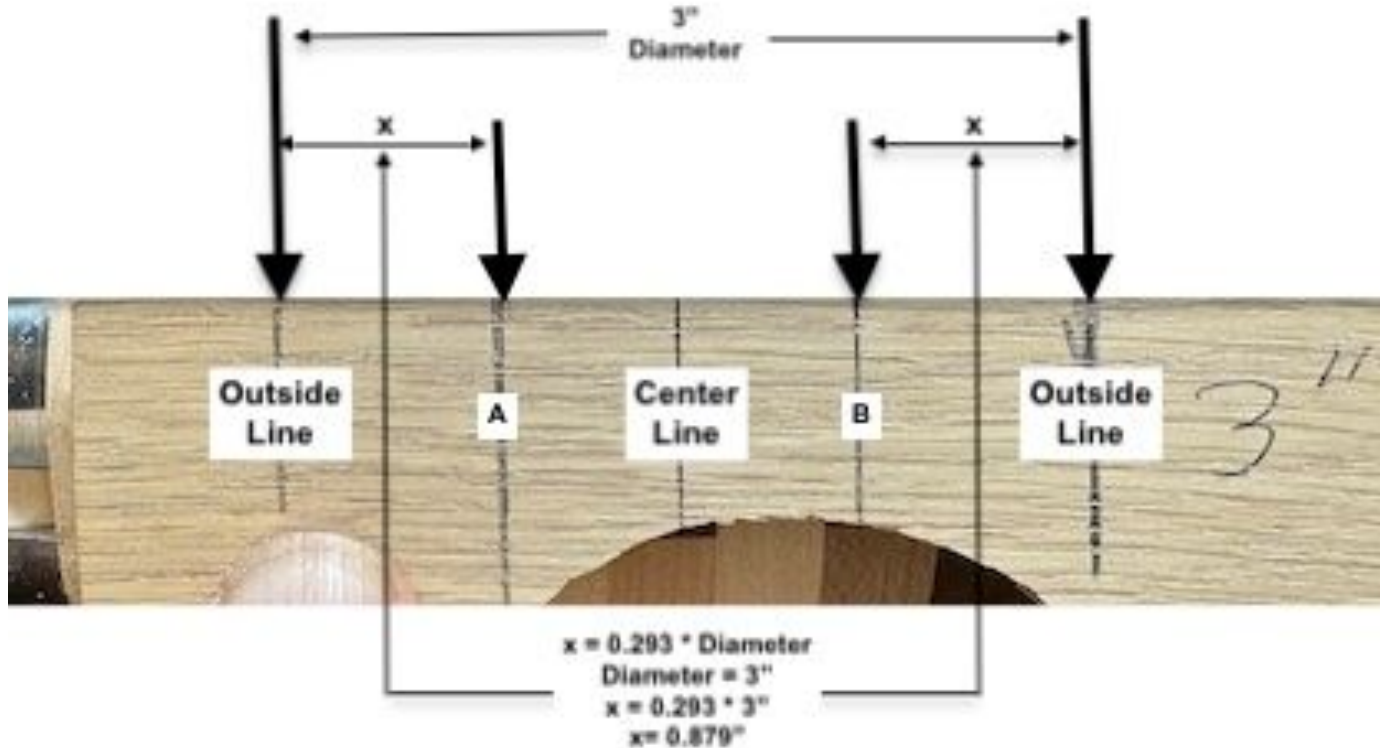
Turning the ornament

- I used an octagon to model the sphere
- I drew lines on the wood that corresponded to the A and B positions
 - $0.239 * 3 = 0.879$ " in from the outside towards the center
- Then the **G**–H line was made by turning down the end block to the proper depth.
 - $0.414 * 3 = 1.242$ ".
- Detail are on the blog





Template





Let's turn it

Wish me luck!

If there is time we will talk about feature rings



Feature Rings





Base for Arrows

Made up of:

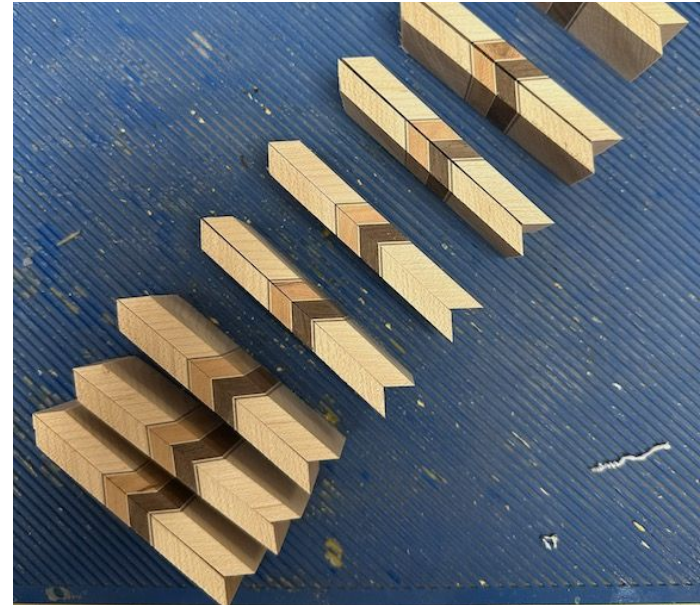
- Maple
- Walnut Veneer
- Maple Veneer
- Walnut
- Maple Veneer
- Cherry
- Maple Veneer
- Walnut Veneer
- Maple



<https://bebobsturnings.com/ornaments/segmented-christmas-ornament/>



Arrows - Process



<https://bebopsturnings.com/ornaments/segmented-christmas-ornament/>



Arrows - Process (Continued)



<https://bebopsturnings.com/ornaments/segmented-christmas-ornament/>



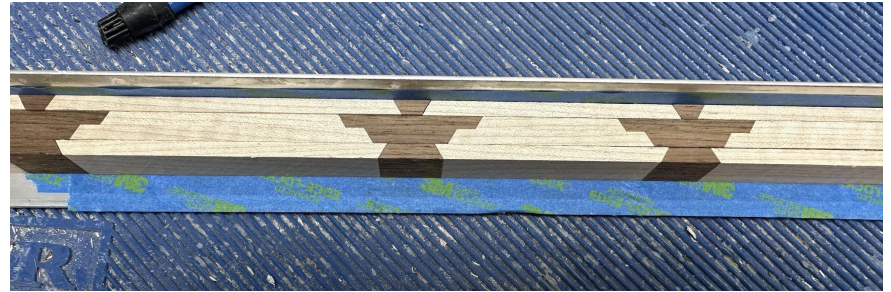
Arrows - Process (Continued)



<https://bebopsturnings.com/ornaments/segmented-christmas-ornament/>



Thunderbird Process





Thunderbird Process (Continued)

