



# Wood Turners Worldwide

worldwidewoodturners.org  
The Art of Makin' Shavings

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VOLUME 3 NUMBER 5



Jayson Cote



Doug Miller



Gonzalo Delacruz



Jefferey Neff



Mike Pekham



Joe Gibson

**Clockwise from top left:**  
Maple champagne flutes intertwined with captive rings; "Swiss cheese vase,": blank drilled while square, then turned, dyed and finished; Walnut platter; Buckeye burl and resin vessel; Maple, cherry, oak, walnut, and ash lidded bowl; Grain detail of a London plane platter.



Jonathan Moore



Jeff Walters



Victor Todd



Dane Chandler



Kirk Kapp



Howard King



Don Miller



Gary Hoffmal

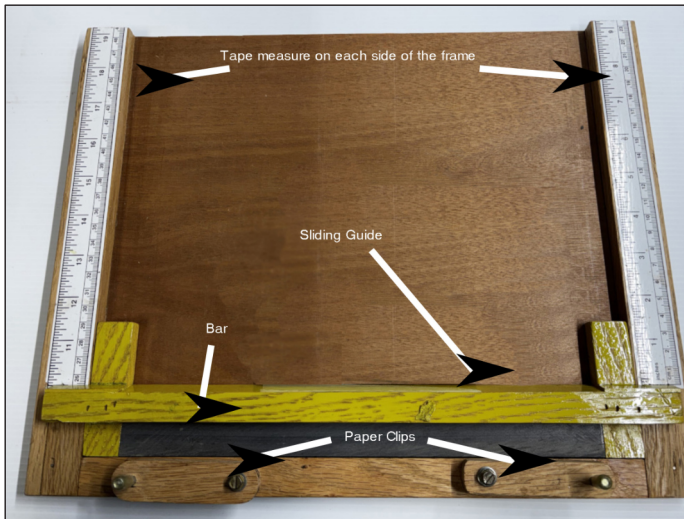


Todd Williams

**Facing page, clockwise from top left:** Cherry clock on a maple base; Spalted red maple Roman canteen with quilted maple inserts; Live edge cherry bowl; Ambrosia maple natural edge hollowform. **This page, clockwise from top left:** Walnut crotch natural edge platter; Plywood vase; A plethora of Freedom Pens; Ponderosa pine bowl with burns.

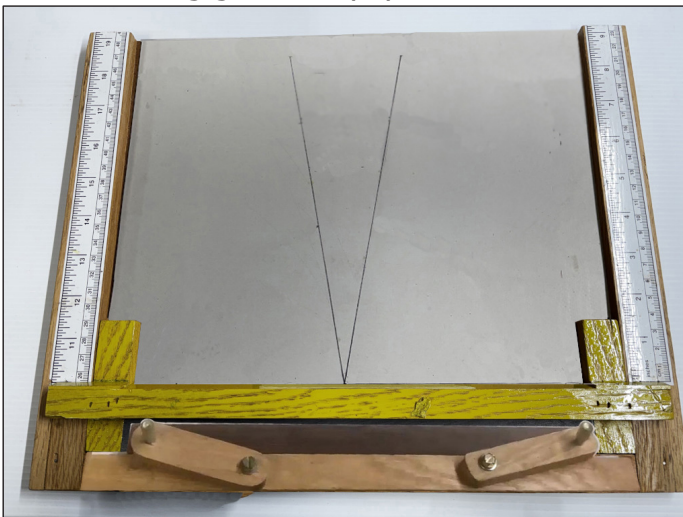
## Plan Design Board

By Michel Richard



### Plan Design Board includes the following parts:

- Backboard for base of the construction.
- Bottom rail.
- Left & right side guide rails, assure each side glide rail is perpendicular ( 90° ) to the bottom rail.
- Tape measure on each side rail.
- Paper clips and bar, with clips mounted on bottom rail.
- The sliding guide for paper measurement.



### Graphic for sizing the segments

For 18 Segments - The cut angle is 10° off vertical (18x10=180)  
 For 12 Segments - The cut angle is 12° off vertical

For 10 Segments - The cut angle is 18° off vertical  
 For 8 Segments - The cut angle is 22.5° off vertical

### Designing the Graphic

Sample for 18 segment ring with 10°:

Using the paper clips and clamp bar, clamp a piece of paper into the frame.

Position the top edge of Sliding Guide all the way down to the Zero (0) position on the side rulers.

Draw a line along the top edge of the Sliding Guide, making sure the line is even with the Zero position of the rulers

Draw a vertical line off the Sliding Guide

Using a protractor, draw a 10° line off center line on each side, start from the common point where the vertical and horizontal lines meet.

Use the angles listed below to create similar graphics for differing numbers of segments ...

For 18 Segments

The cut angle is 10° off vertical (18x10=180)

For 12 Segments

The cut angle is 12° off vertical

For 10 Segments

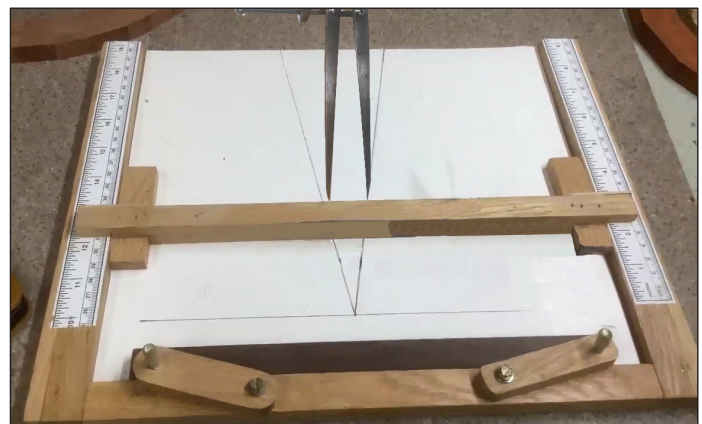
The cut angle is 18° off vertical

For 8 Segments

The cut angle is 22.5° off vertical

When used, The distance between the right and left 10° lines will be the segment length.

This graphic should be saved. I can be used for all rings with the same number of segments (in this case, 18 segments).



### Measuring the Segment Lengths

Sample: measure the segment length for a ring of diameter 10."

Divide the diameter of your needed ring layer in half, get 5".

Move the sliding bar up to the 5" ruler mark.

Use a pointed caliper, and measure the distance from left and right 10° lines – this is your segment length to be cut.

Use the caliper and side ruler to determine the length of the segment.

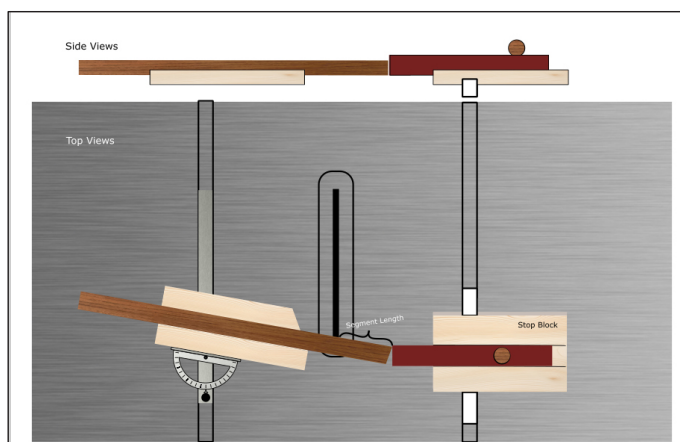
By construction of the Plan Design Board, the sliding bar will be kept at 90° to the side rails and offer a precise measurement for the segment length. To assure correct measurement, check that the horizontal line on the graphic is even with the 0 marks on both the left and right tape measures. Also, when the slide bar is in position (5" up in the sample case), make certain the top edge of the slide bar runs through the same location (number) on left and right rulers.

### Using the Segment Length

The picture below shows one (of many) table saw setup that could be used with the measured segment length for cutting segments.

To use the segment length:

- Set the miter gauge to 10°.
- Place a wood strip in the miter, extending the length of the segment passed the blade as shown in the diagram.
- Adjust the stop block in, touching the extended wood, to allow replication of that length segment.
- By construction, the stop block is raised slightly above the table surface. add an equally thick piece of plywood under the wood strip (1) assure contact to stop, and (2) leave room for prevent sawdust from effecting the cut. I use a 3/8" gap between surface and wood.



### Procedures Step by Step

1. Use your plan design board to determine segment size.
2. Put a piece of paper on the board.
3. Secure the paper to the board with clips and bar.
4. Draw a horizontal line between zero points on the rulers.
5. Use a protractor to draw the angle lines appropriate for the number of segments that you want in your ring (use the table above that associates segment counts to angles).
6. Place the sliding guide on the design board.
7. Assure the horizontal line is even with the 0 marks on the rulers of each side.
8. Slide the sliding guide to 1/2 the diameter of the ring you desire. (Again, if you want a 10" diameter ring – slide the guide to the 5" mark on the side tape measure.
9. Use calipers to measure the distance between the two lines on the top edge of the sliding guide. (Measure inside of the 'V', measuring from left and right lines).
10. Place the calipers against a side tape measure and read the separation of the caliper points. Use this measurement when cutting the segment.
11. Use the measurement.
12. Transfer the measurement to a ruler.
13. Place the rule against the miter gauge and slide the ruler to saw blade. For precise ring sizing, measure this length to the furthest tip (right side) of the saw blade.
14. Clamp a piece of wood (to form a measuring block) for duplicate cuts.
15. Make the first cut (cut off the end to get the starting angle), flip the wood to make the second cut.
16. Place a measuring tape or ruler against the longest length. If cut and measured correctly, this distance should match the calculated segment length.
17. For each ring diameter, adjust the block distance relative to the saw blade to increase or decrease the segment length to the desired sizing.
18. Continue cutting the required number of pieces for each ring.

**Do you have a tip, rick, tool, or process you'd like to share with the club? Email it to [editor@worldwidewoodturners.org](mailto:editor@worldwidewoodturners.org). Make sure included photos are high resolution!**



Club patches are now available to order! We thank you all for what you do and for how you make this group better! Cost is \$7.50 per patch. Shipping worldwide!  
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Waukeene Vinson

**Above:** Norfolk pine 3 sided vessel from a cube.

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All you have to bring is your gouges & turning tools of choice. We have a special room rate at the Hotel Mead, Wisconsin Rapids, WI call the front desk @ (715) 423 1500 and use code Level-Up for \$130 rate.

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