PolyDraw Tutorial I

Making a Circular Bowl

For the longest time if you wanted to make a bowl you used a lathe and if you wanted to make a basket you took up weaving. The scroll saw now allows for the construction of bowls and baskets plus offering the ability to do things not possible with either a lathe or weaver's tools. With the publication of Carole Rotham's book (*Wooden Bowls From The Scroll Saw*) there has been an increased interest in bowl making and also an increase of available plans. There may come a point that you want to design your own bowl. Maybe you have a beautiful piece of wood that is a tad bit too small for your pattern or maybe you just want to experiment with different sizes and shapes. The normal tools you have available to you are drafting compasses, string & pins, French curves, and other drawing tools. Some of you may be fortunate to have drawing software on your computer, but for most, the design of anything other than simple circles is a tedious, time-consuming job.

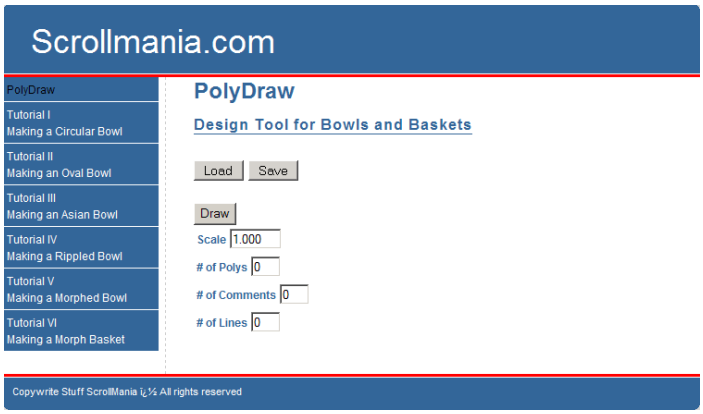
PolyDraw is table based plan drawing software designed for the specific purpose of making patterns for bowls and baskets. Before going any further this is a good point to get some basic definitions in order.

Bowl: A project consisting of layers of rings and a base.
Basket: A bowl built to simulate the textured look of a real basket.
Ring: A type of layer that has a hole in the middle. It requires the cutting of both an outside and inside edge.
Base: A solid layer generally at the bottom of a bowl. It only requires the cutting of an outside edge.
Poly: Poly is short for polyhedron. It is an enclosed figure of some particular shape, e.g square, circle, or some odd shape, all either rippled or smooth. It is the edge to be cut.

A four layer circular bowl has three rings and a base. Each ring has an inner and outer poly. The ring is what you what. The polys are what you cut to get it.

Using PolyDraw

The easiest way to learn PolyDraw is to use it. Go to www.scrollmania.com and click the **PolyDraw** tab on the left and you will see the following screen.



The first project is a 7"diameter, four layer circular basket. This requires 3 rings, each ¼" thick, and a base. This requires 4 polys to draw. Go to the **# of Polys** field and enter **4**. You will see that there are fours lines, one to describe each poly. For the moment the actual data in the fields is not important. Using the screen shot below as a guide, enter the data into the poly fields. Click the Draw button and PolyDraw will draw the pattern.

PolyDraw

Design Tool for Bowls and Baskets

Load Save

Draw

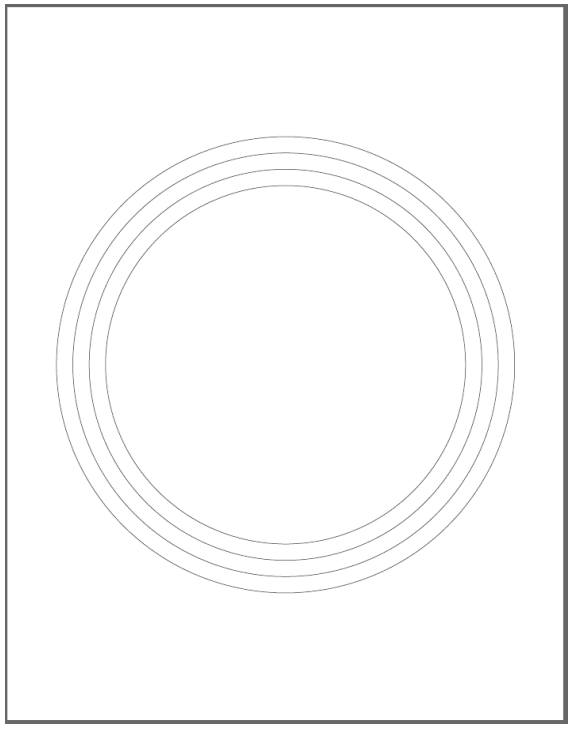
Scale 1.000

# of Polys 4

X Radius	Y Radius	Poly Order	# of Waves	+/-Wave Amplitude	X Offset	Y Offset
3.5000	3.5000	2.000	0	0.0000	0.0000	0.0000
3.2500	3.2500	2.000	0	0.0000	0.0000	0.0000
3.0000	3.0000	2.000	0	0.0000	0.0000	0.0000
2.7500	2.7500	2.000	0	0.0000	0.0000	0.0000

# of Comments 0

# of Lines 0



This plan has three rings, each a ¼“ wide and a base all centered in the middle of the page. The outside ring is 7” in diameter (**X Radius** & **Y Radius** are 3.5000).

Now it would be nice to add horizontal and vertical orientation lines. So set the **# of Lines** field to **2** and add the data shown below. Click the Draw button to see the updated pattern.

PolyDraw

Design Tool for Bowls and Baskets

Load Save

Draw

Scale 1.000

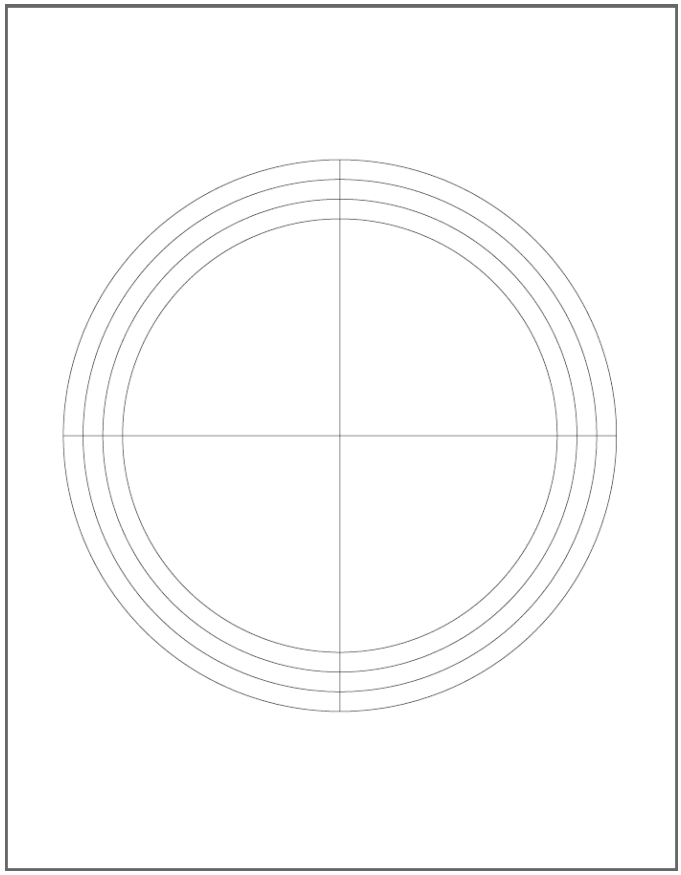
# of Polys 4

X Radius	Y Radius	Poly Order	# of Waves	+/-Wave Amplitude	X Offset	Y Offset
3.5000	3.5000	2.000	0	0.0000	0.0000	0.0000
3.2500	3.2500	2.000	0	0.0000	0.0000	0.0000
3.0000	3.0000	2.000	0	0.0000	0.0000	0.0000
2.7500	2.7500	2.000	0	0.0000	0.0000	0.0000

# of Comments 0

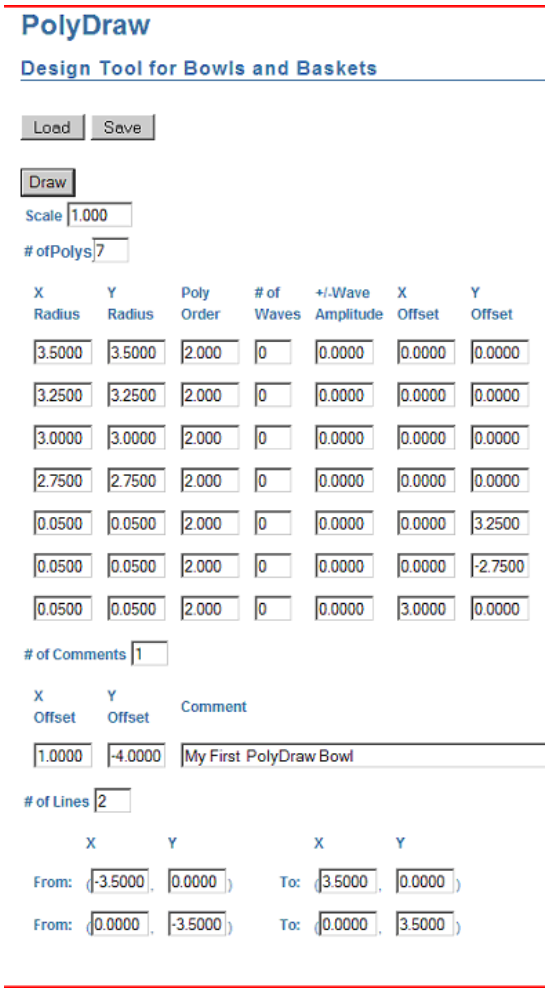
# of Lines 2

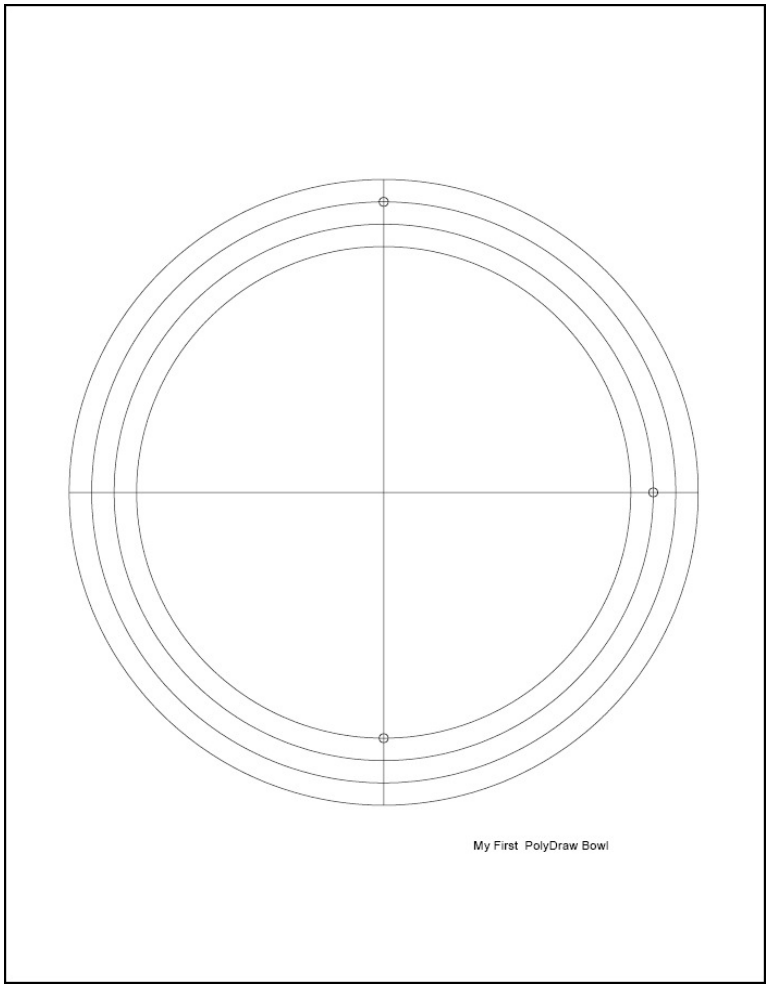
	X	Y		X	Y
From:	-3.5000	0.0000	To:	3.5000	0.0000
From:	0.0000	-3.5000	To:	0.0000	3.5000



This plan now has vertical and horizontal orientation lines. One line starts 3½" left of center (**From X** is –3.5000) and ends 3½" right of center (**To X** is 3.5000). The other line starts 3 ½ " below center (**From Y** is –3.5000) and ends 3½ " above center (**To Y** is 3.5000).

It would be nice to comment this pattern. Set the **# of Comments** field to **1** and enter the data shown below. Also three drill marks are needed. These are very small circular polys positioned in the correct places. Increase the **# of Polys** field to **7** and enter the new data for the extra three lines. Click the Draw button to see the updated pattern.





This pattern is now is complete. The only thing left to do save the data. Click the Save button to save this data. Name the file **MyFirstBowl.txt**. You can use the Load button to retrieve it later.

Congratulations! You have made a pattern using PolyDraw. Now if all you are interested in making is different size circles and moving them around then you have all the information you need. However if you want to be explore more features of PolyDraw than move on to **PolyDraw Tutorial II, *Making an Oval Basket***.