

## CICAAW May Contest & Challenge

For the May 20<sup>th</sup> meeting, we will have a streptohedron contest and challenge. The streptohedron is a "twisted polygon," that is, a polygon which has "rotational symmetry": when split along an axis, rotated, and rejoined, it becomes a new shape with compound-curved faces that seem to flow smoothly into each other. The beginning polygon can have any number of sides. To turn one you prepare a blank, split it down the middle, and then glued or tape it back together for turning. You then turn the specific shape you want, re-split the piece along the glue joint (and clean up the faces), rotate ("twist") one section in relation to the other, and then glue them back together. If the turning has been done correctly, the edges will line up and the streptohedron emerges.

The following are some resources to help you understand streptohedrons:

1. "Woodturning Full Circle" Book by David Springett
2. Streptohedrons (Twisted polygons) <http://archive.bridgesmathart.org/2006/bridges2006-285.pdf>
3. Cap'n Eddie Castelin youtube video on femispheres; <https://youtu.be/kSrK-XXjib4>
4. Google SketchUp of streptohedrons: <http://www.hypersurf.com/~charlie2/Turning/Streptohedrons/StreptohedronsTOC.html>
5. "Turning an Odd Wobbler" By: Don Geiger: <http://m.geigerssolutions.com/upload/1210113%20Odd%20Wobbler%20Instructions%20Web%20version.pdf>
6. Also do internet searches using femisphere, streptohedron, and sphericon.

**Contest Rules:** One streptohedron entry per member. Voting by members at the May meeting. First place \$15, Second place \$10, Third place \$5.

**Challenge Rules:** A \$20 gift card will be raffled next meeting. A member will receive one raffle ticket for each streptohedron brought to the May meeting. A limit of 5 tickets per streptohedron shape. There are many streptohedron shapes and a member can receive addition tickets if multiple shapes are bought to the meeting.