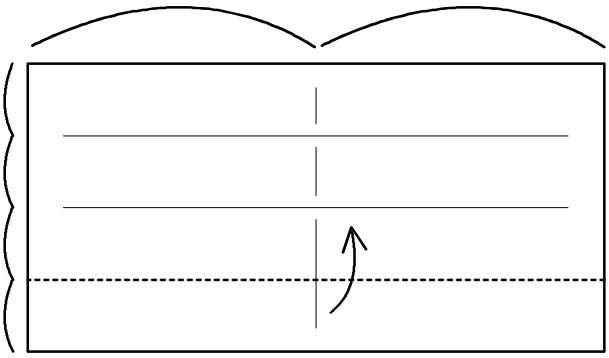
S.I.P (Six Intersecting Pentagrams) - Francesco Mancini

Intermediate

Inspired by Robert Lang's Polypolyhedron #7 and the work of Tom Hull and Francis Ow, this model was co-discovered independently by Jared Needle and Leong Cheng Chit. Assembly algorithm and instructions developed by J.C. Nolan from 30 degree variation of unit by Meenakshi Mukerji. Original 30 degree creasing pattern by Leong Cheng Chit, BOS 2004. Fold from 30 2x1 rectangles of 6 different colors. 30 5" x 10" rectangles produce an 11" x 11" x 11" model.

1.



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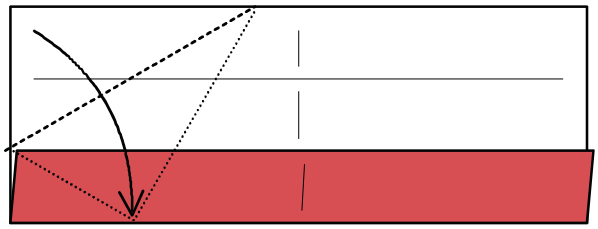

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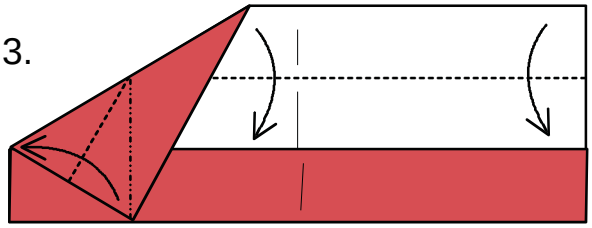

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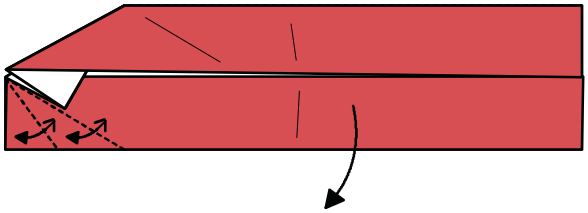

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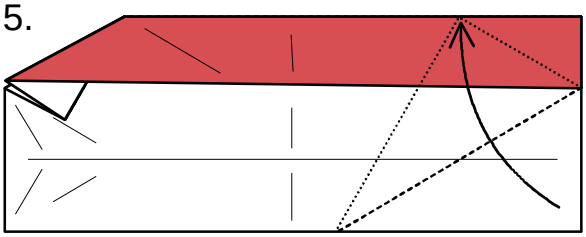

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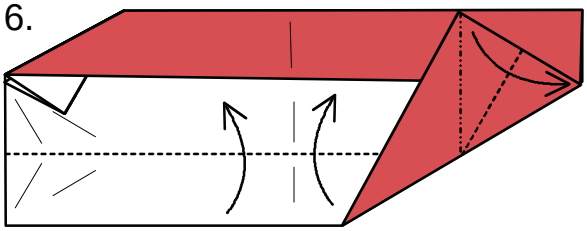

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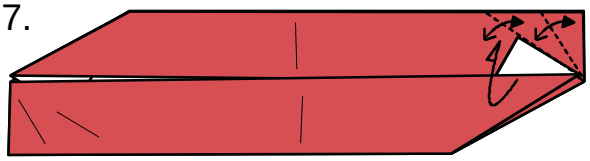

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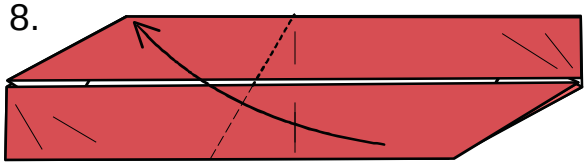

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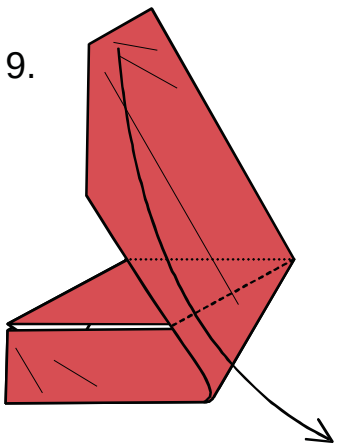

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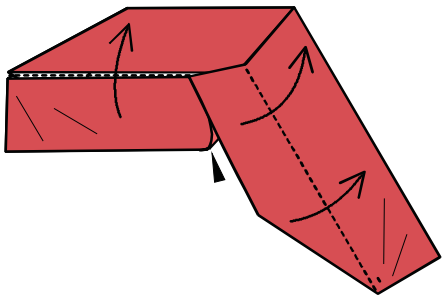

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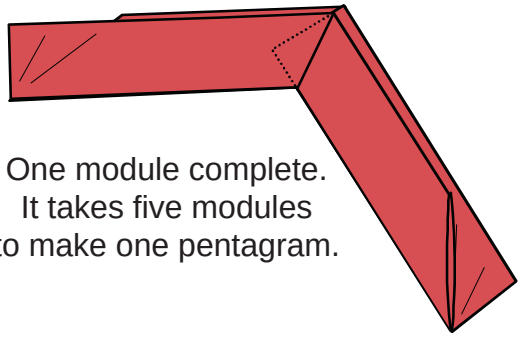
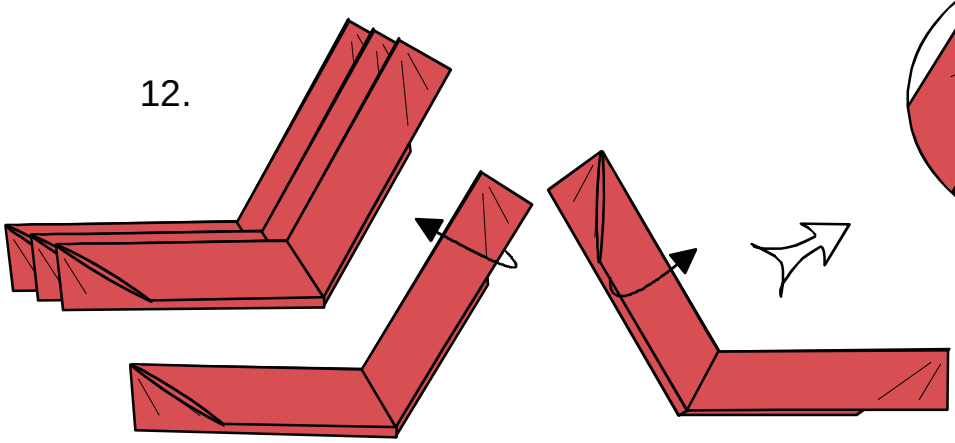


One module complete.
It takes five modules
to make one pentagram.

12.



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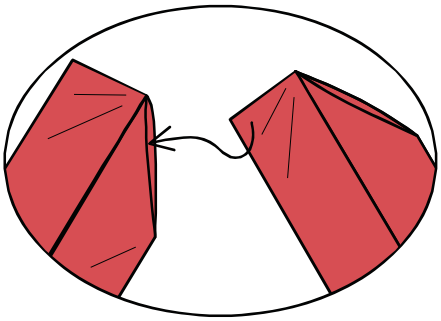

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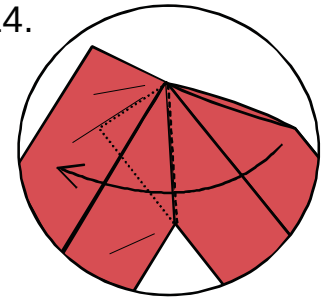

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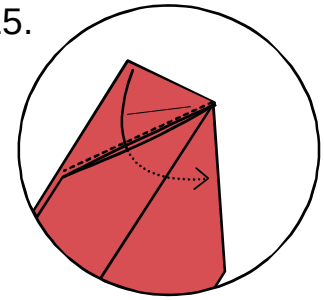

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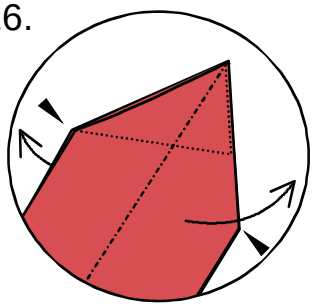

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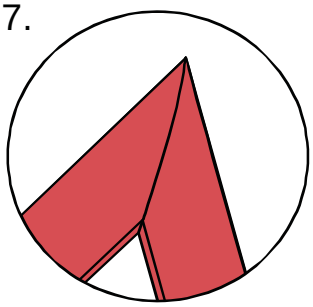

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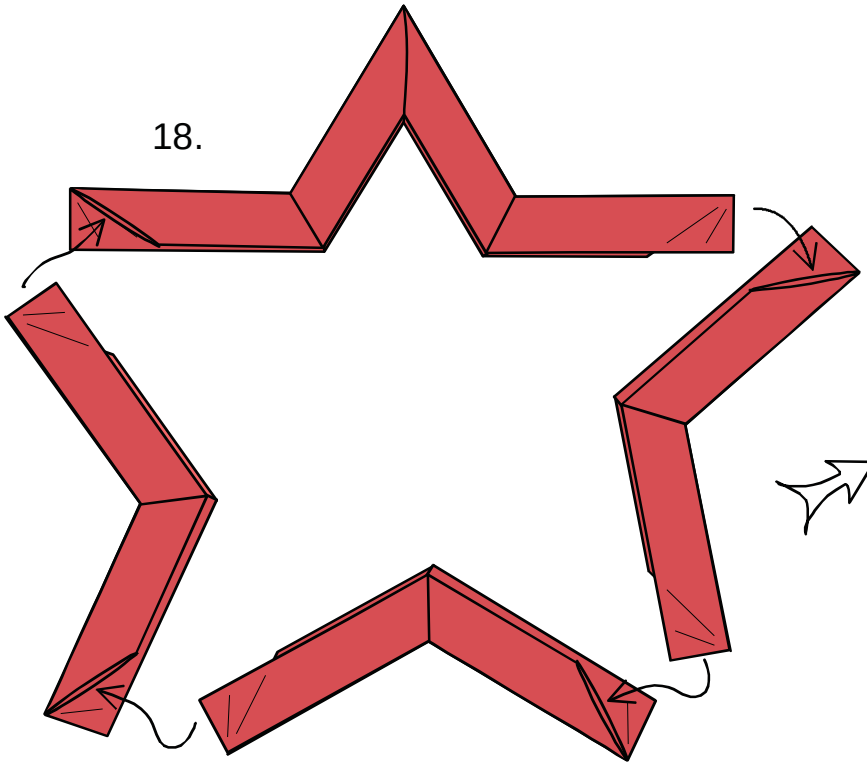

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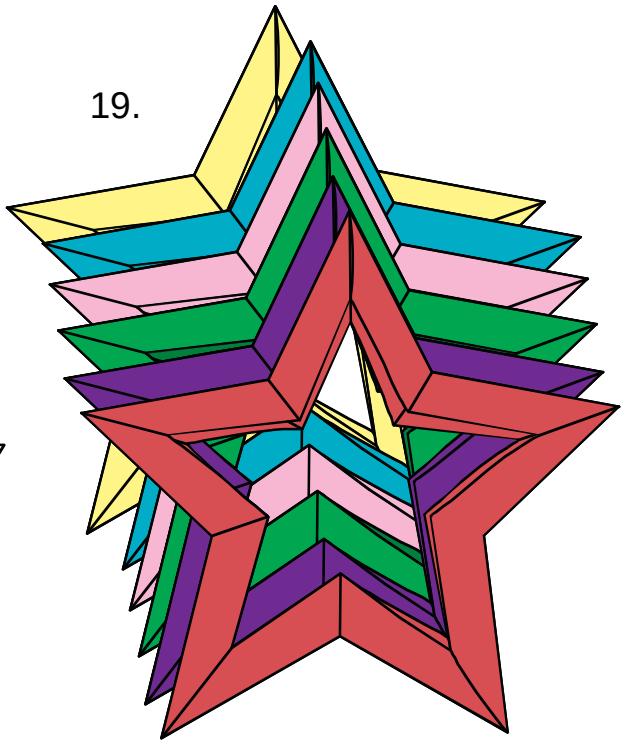
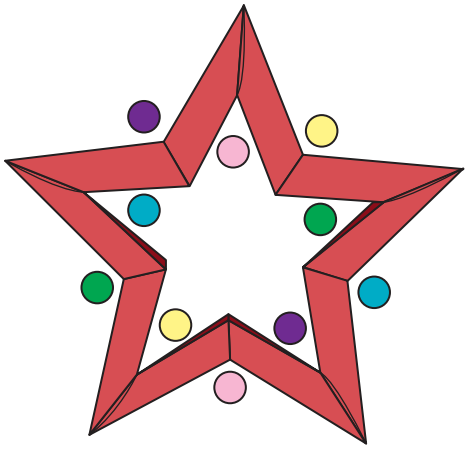
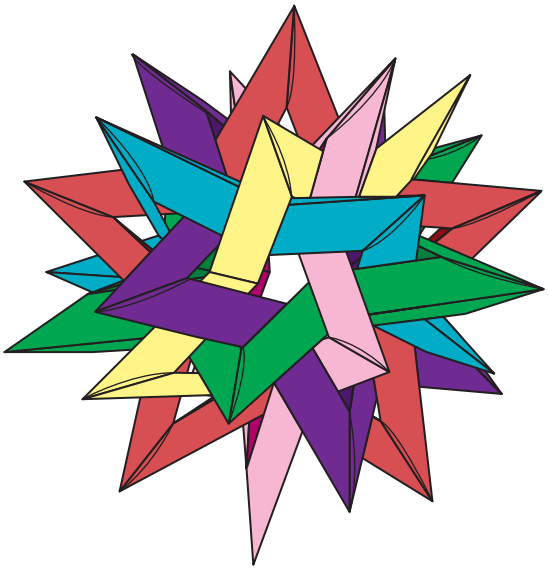


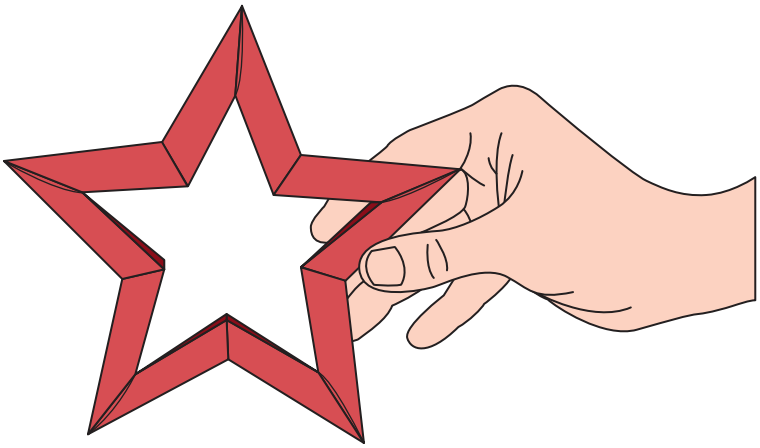
Fold a total of six pentagrams
in six different colors.

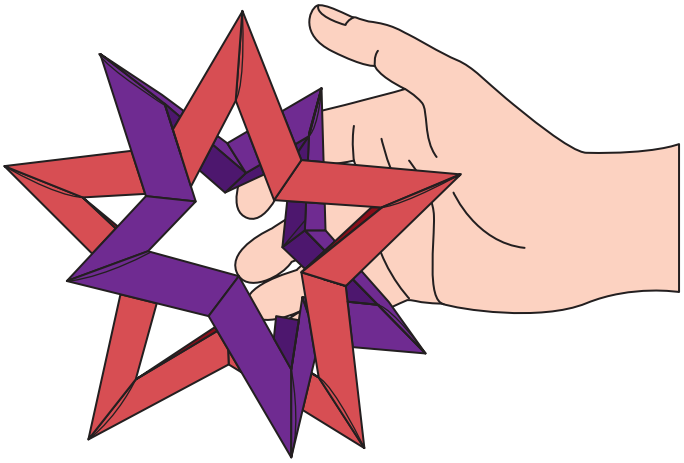


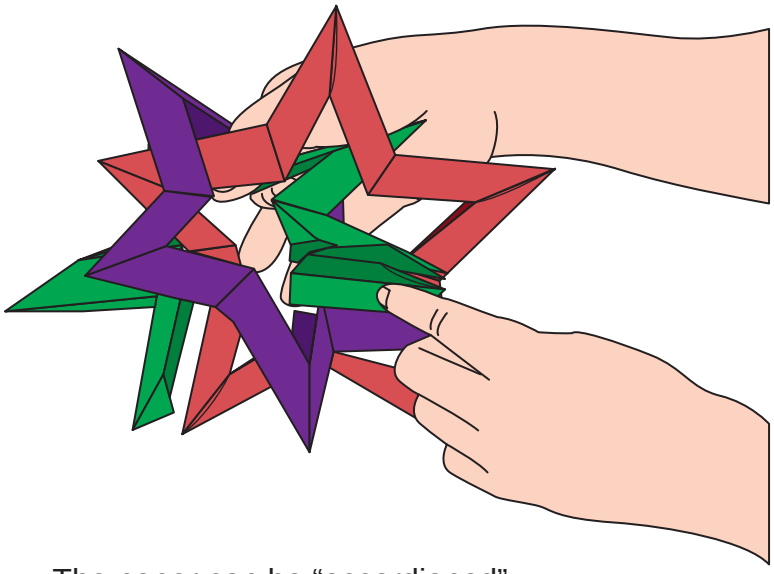
In the assembled model, notice that for each obtuse angle in the pentagram, the opposite, acute angle, will contain the same color but on the inside - Purple opposite Purple, Green opposite Green, etc.

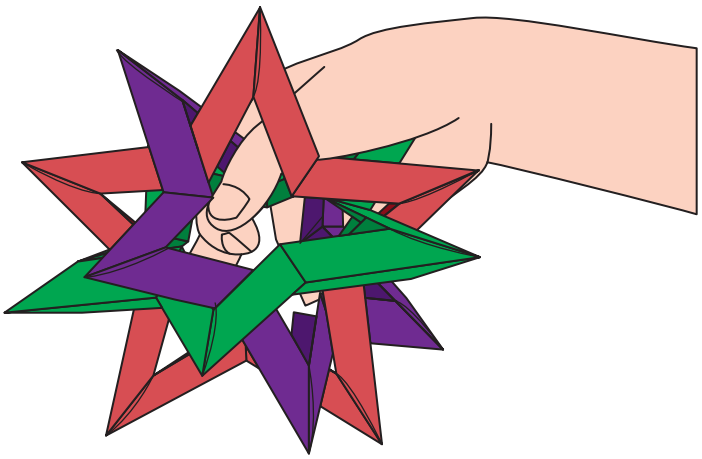


Additionally, each obtuse angle will meet an acute angle in an opposite pentagram and vice versa. We will go around the ring adding each color moving counter clockwise - Purple, Green, Pink, Blue then Yellow.

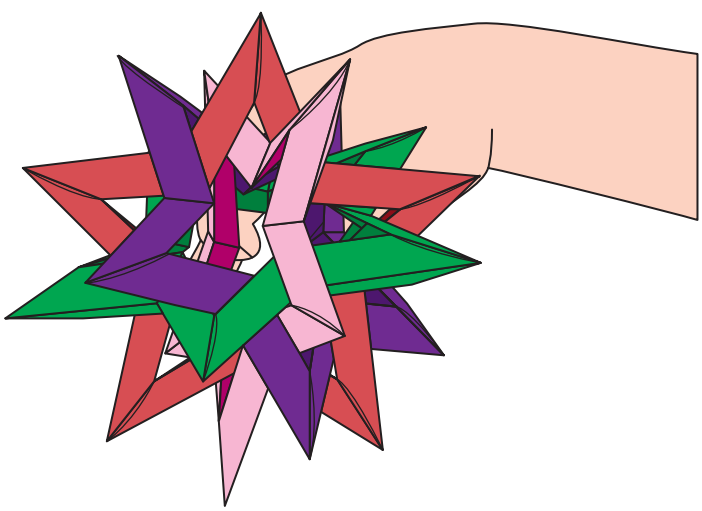


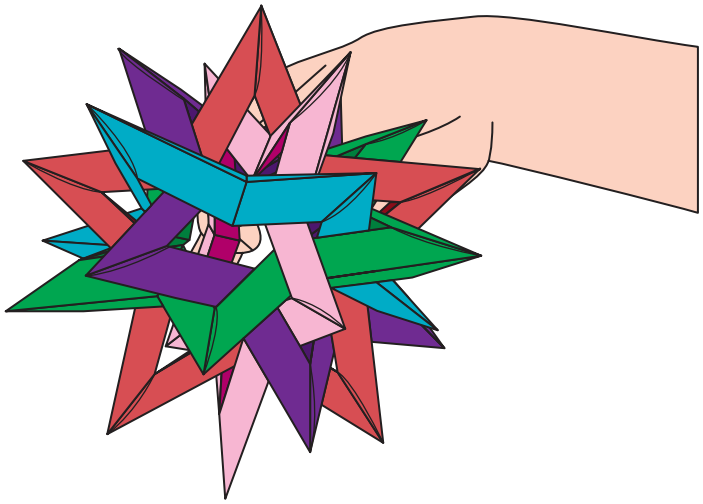


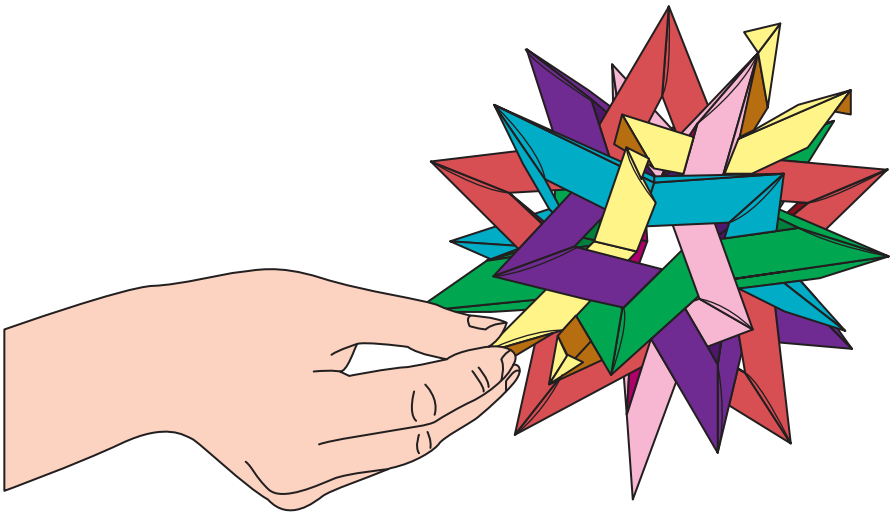




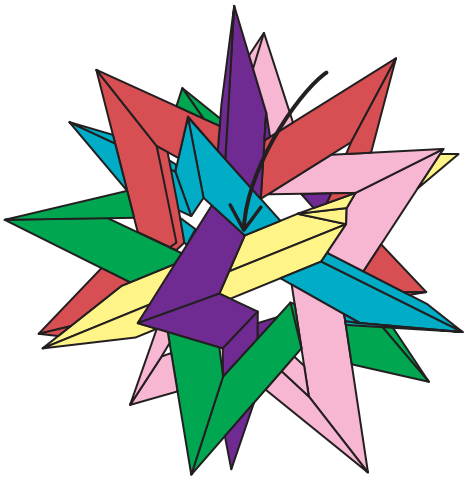
The paper can be “accordioned” to make the weaving easier.

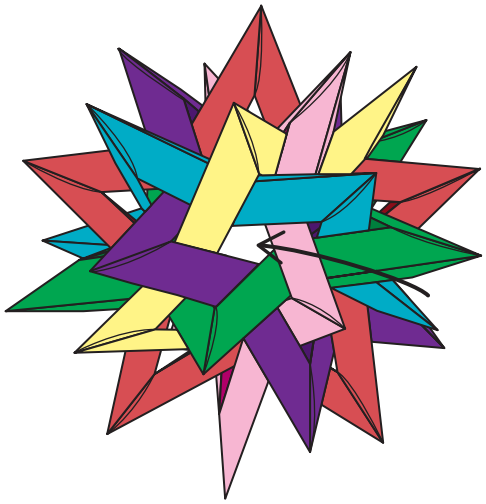






For the last pentagram, it is best to place all five pieces separately and then connect them after they are in position.





Assembly complete, two views are shown. The first rotated just slightly around the y-axis. Notice the two fundamental structures, three pentagrams intersecting tightly to form a triangle (center of leftmost illustration) and the ring of five intersecting pentagrams that forms a pentagon (center of rightmost illustration).

This set of illustrations show views of the model from six different angles as you rotate it 90° along each axis.