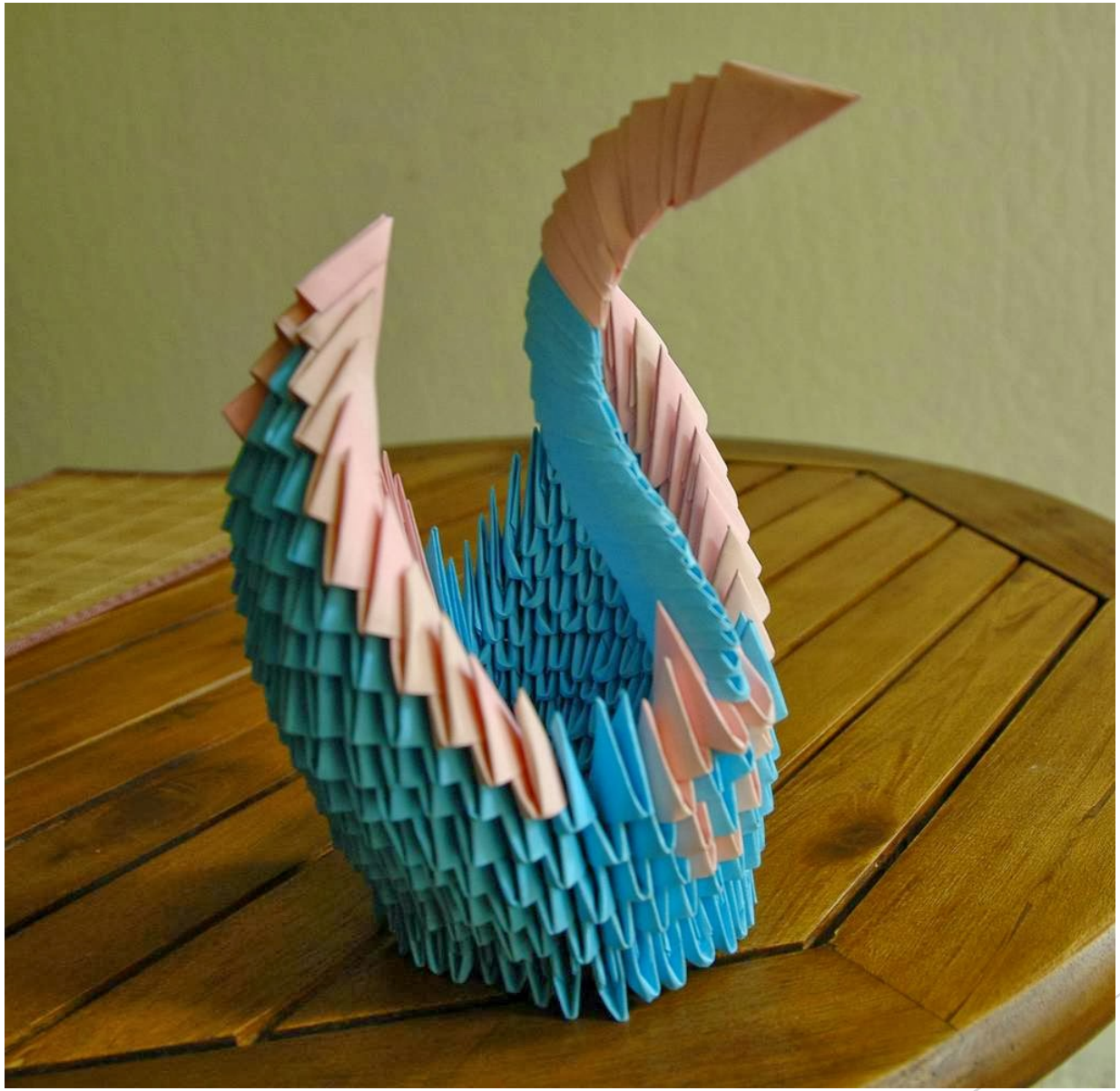
Origami, Shapes, and You!

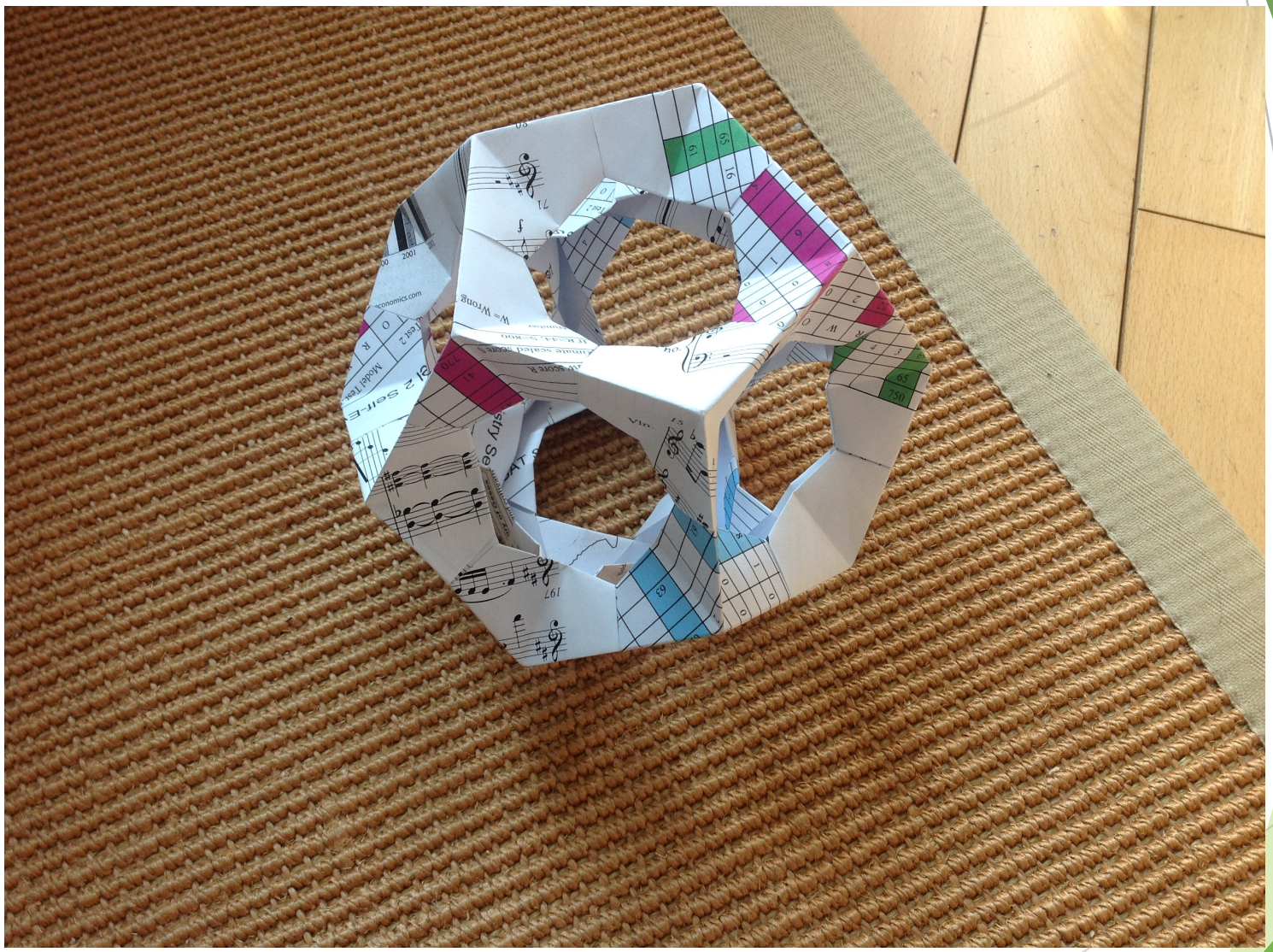
MIT Splash 2019

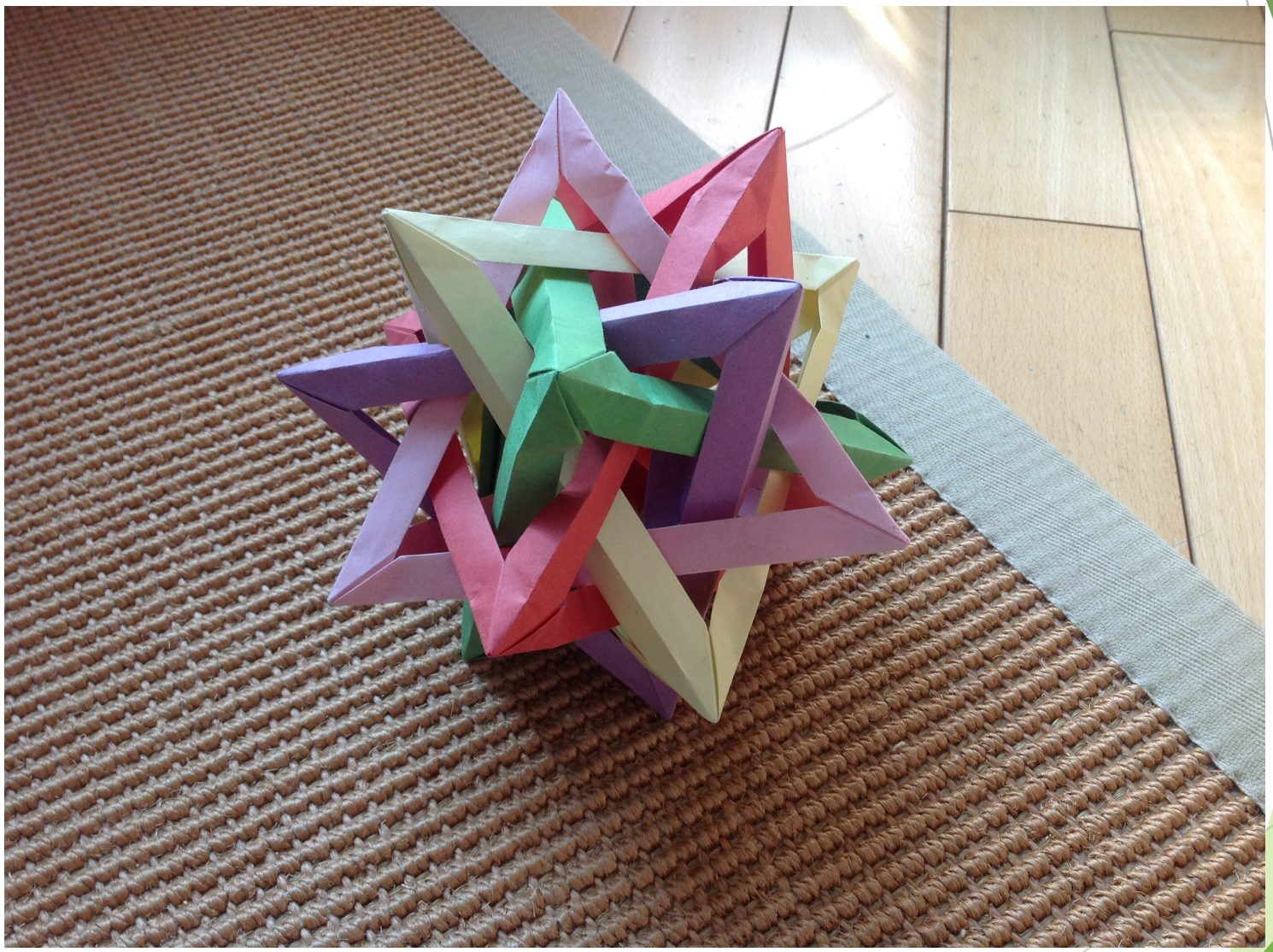
Modular Origami

- Modular origami is a form where a person puts a number of identically folding paper together that eventually forms a completed model. The individual pieces are often simple, with the true challenge in putting together the model.


Photo © OrigamiSpirit.com



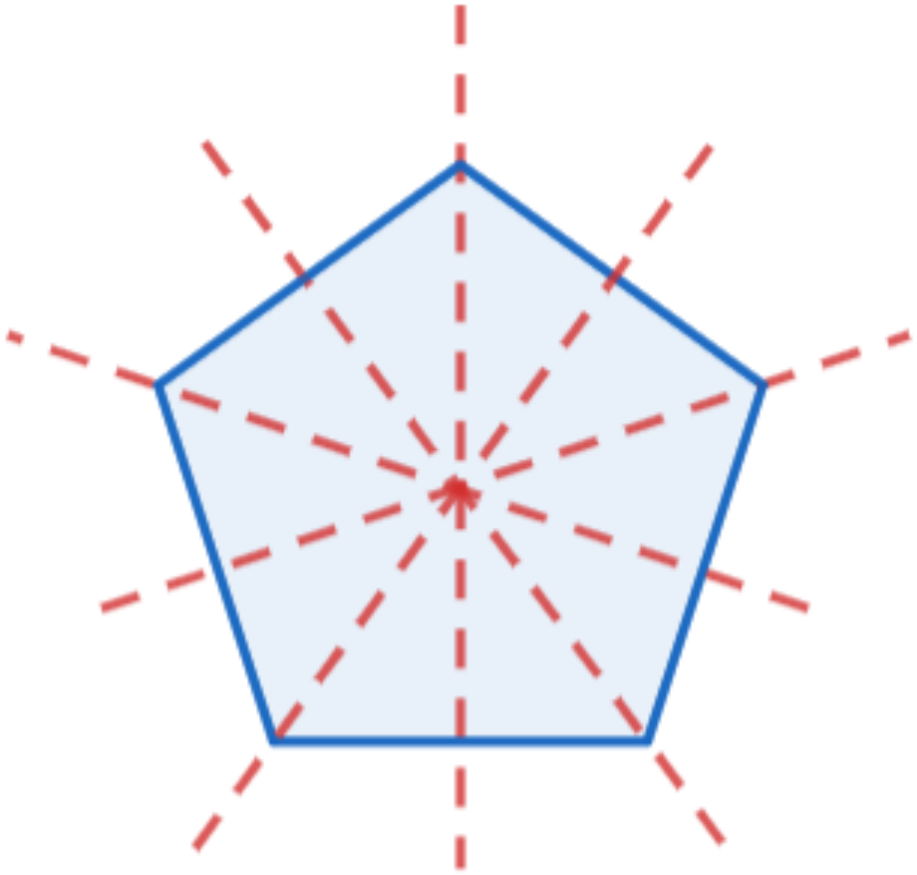


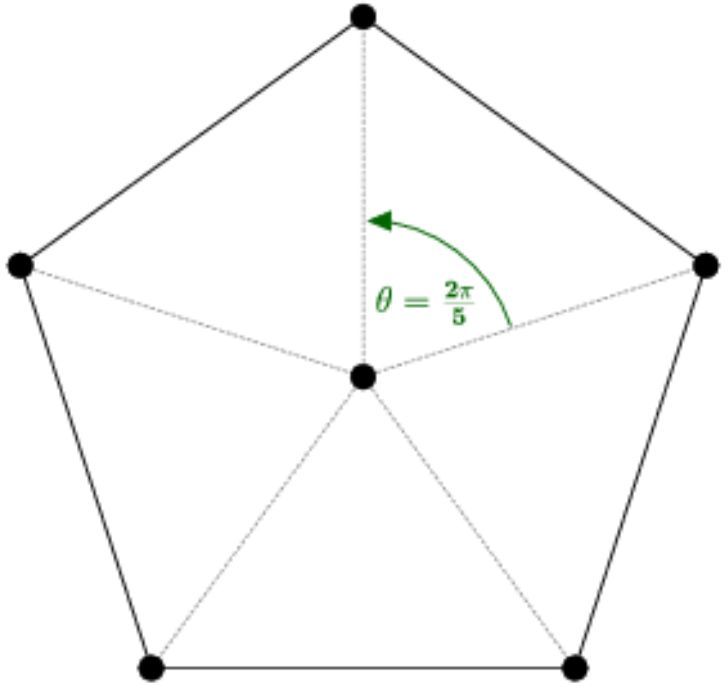



QBS
BS
QBS
KS

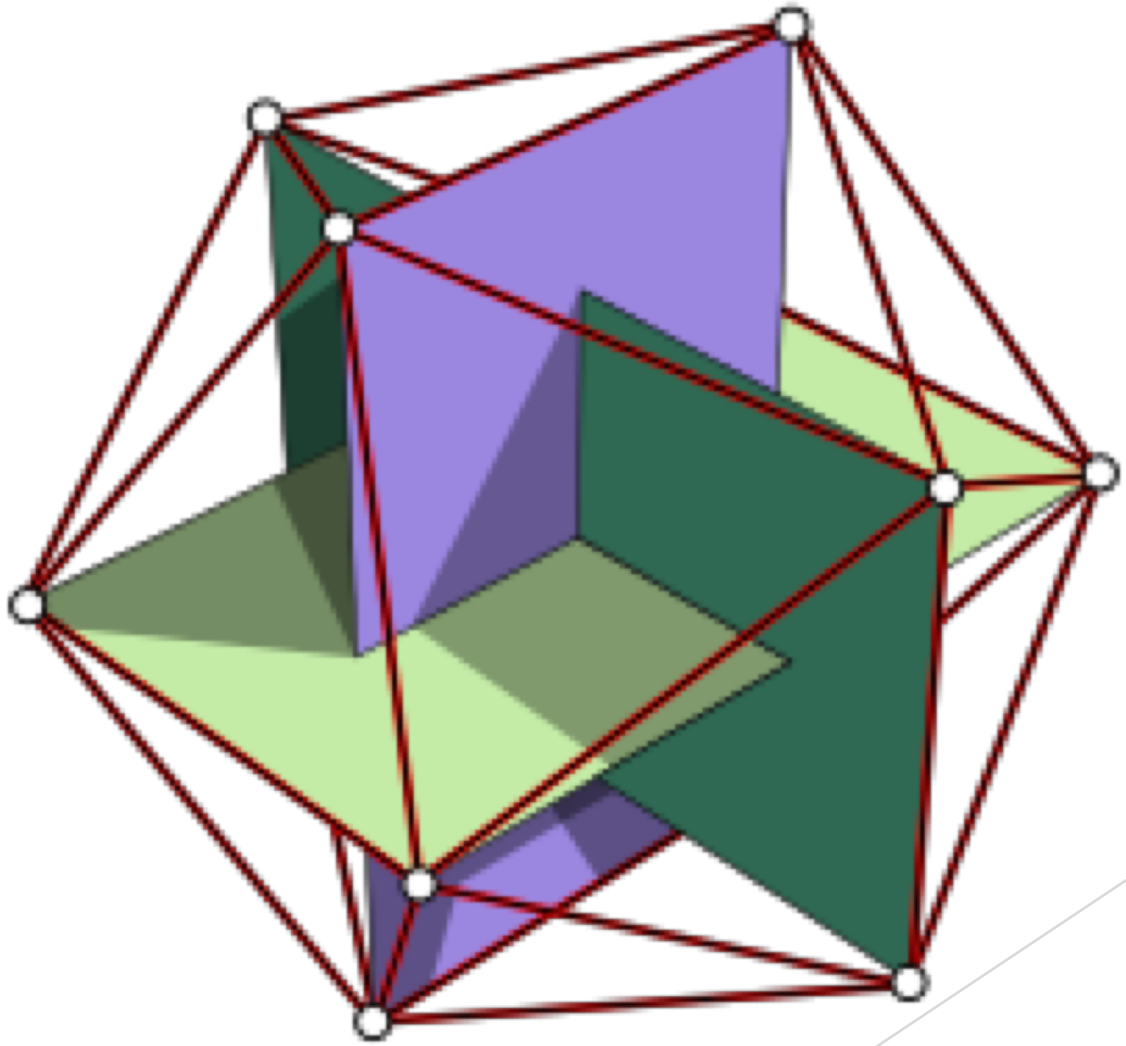
How many faces?

Symmetry in shapes

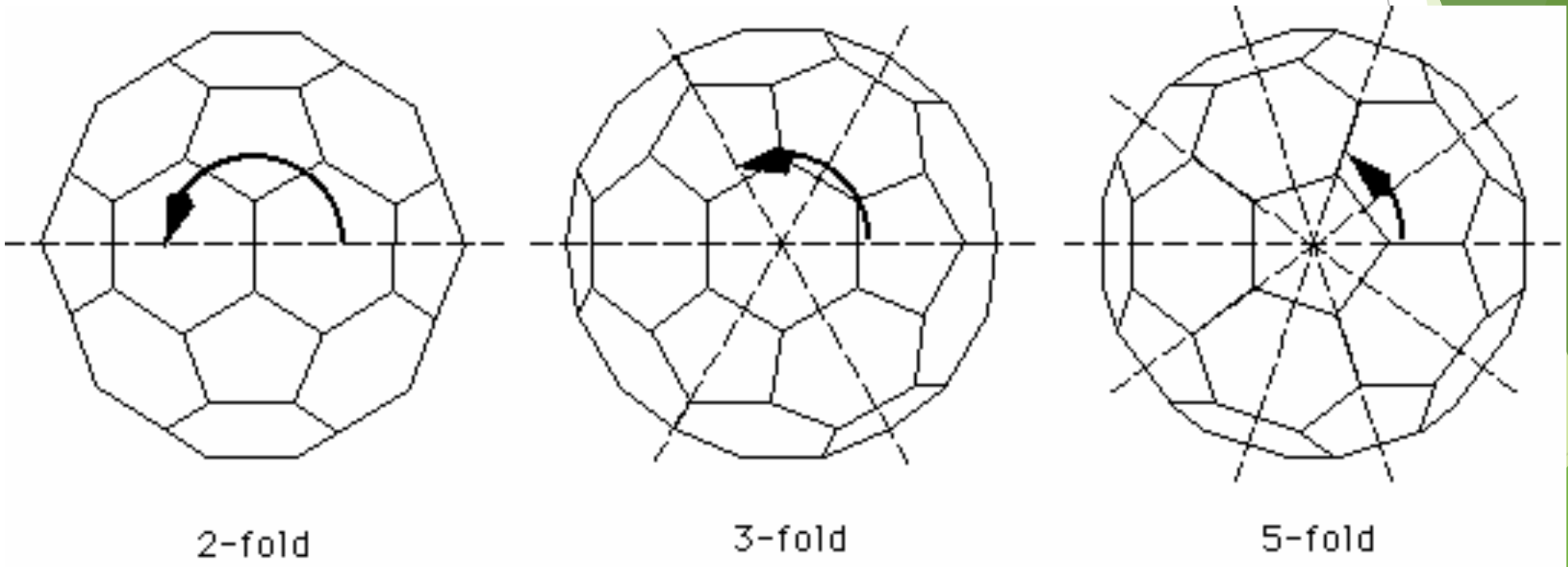




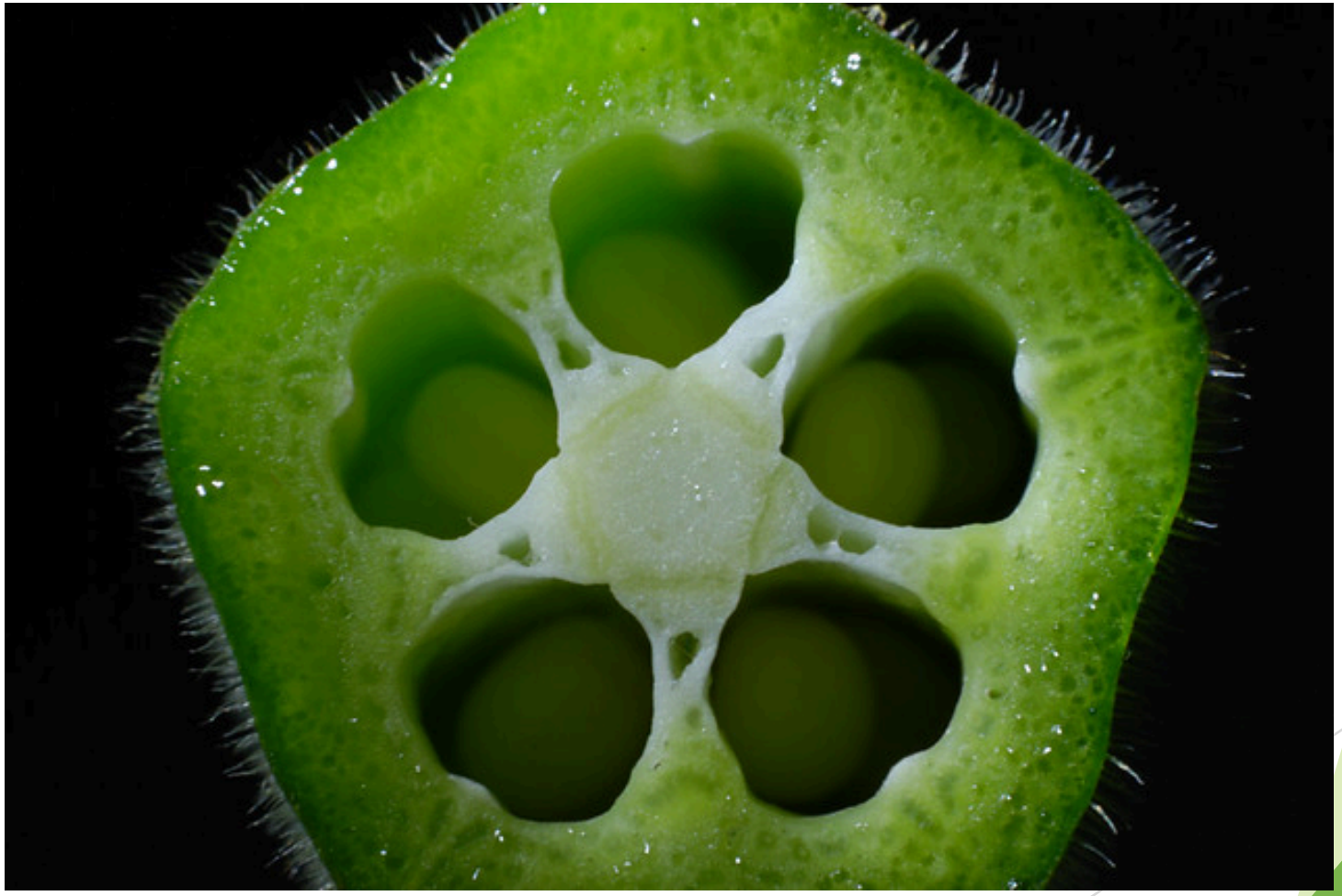
Symmetry in 3D shapes



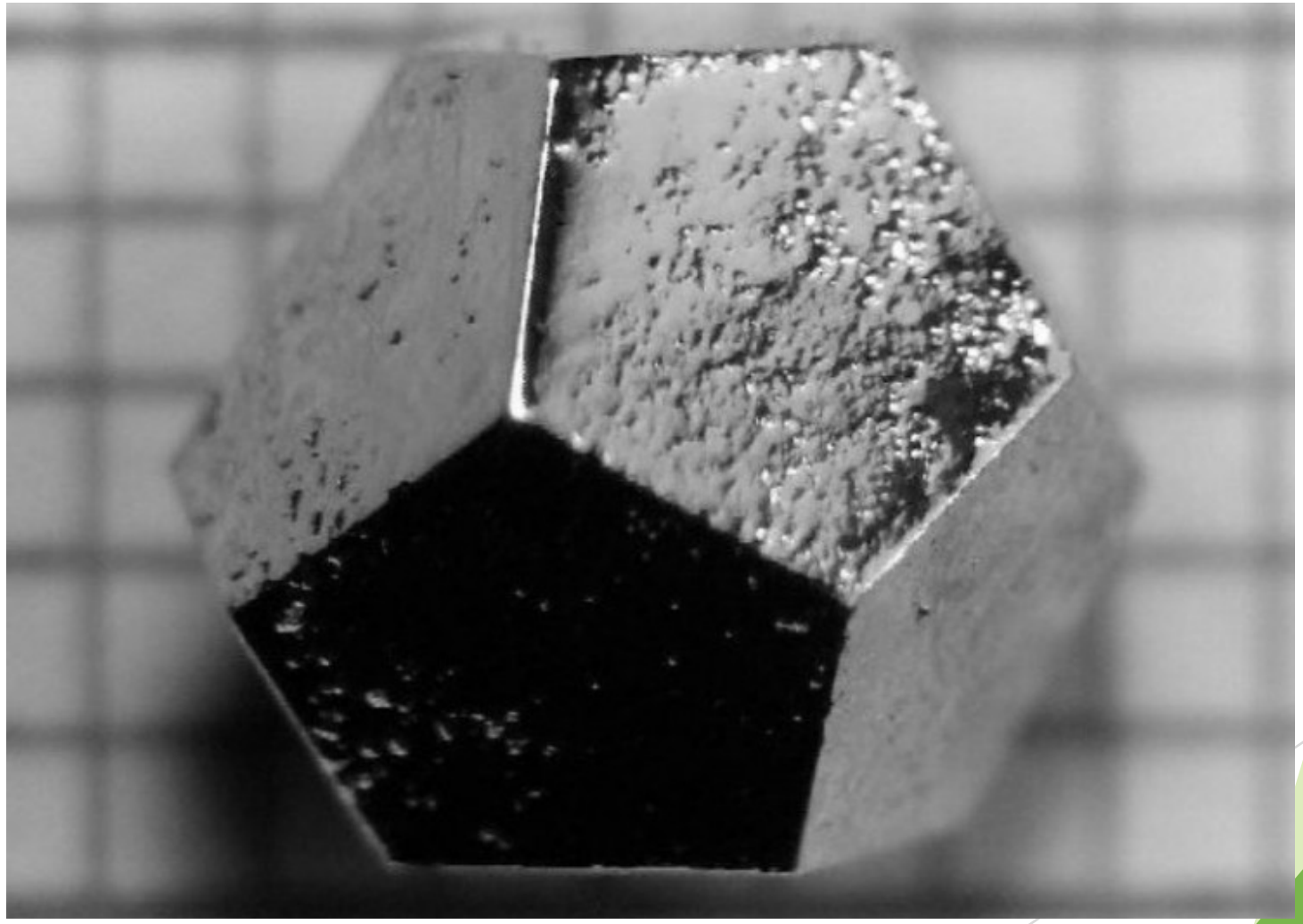
Symmetry in 3D shapes



Symmetry in nature

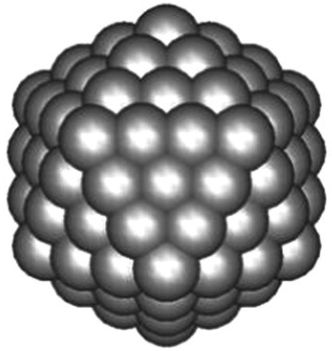


Symmetry in nature

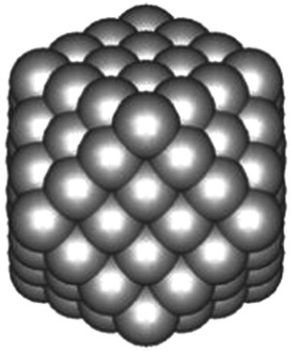


Seven Basic Crystal Systems

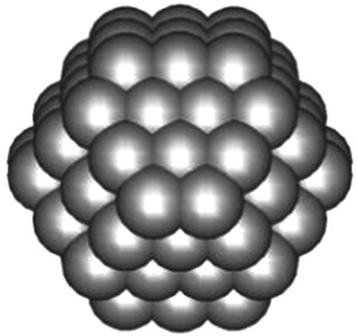
From Modular Origami to Nanotechnology



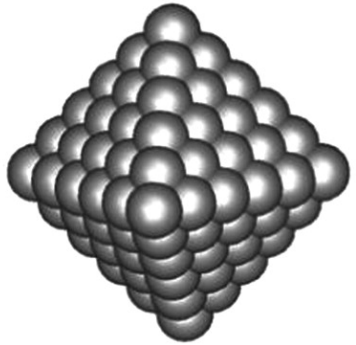
Icosahedron



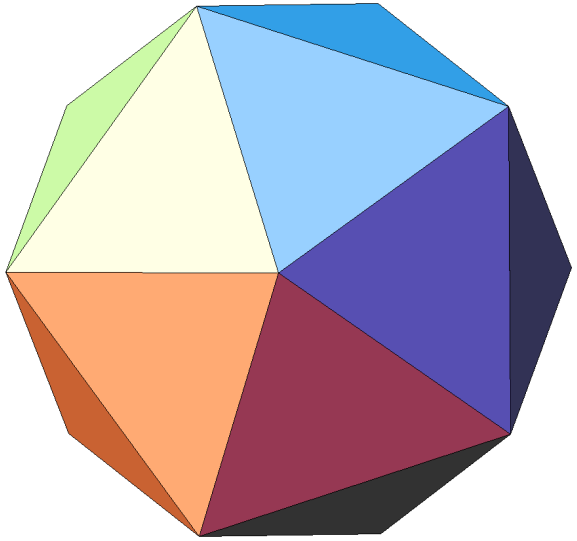
Cuboctahedron

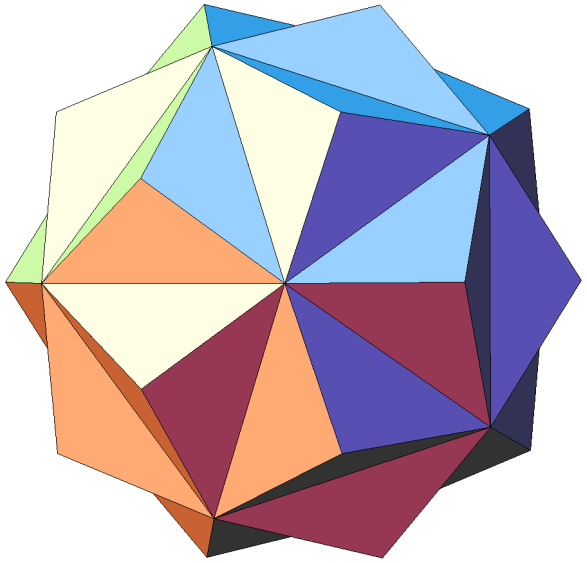


Truncated Octahedron



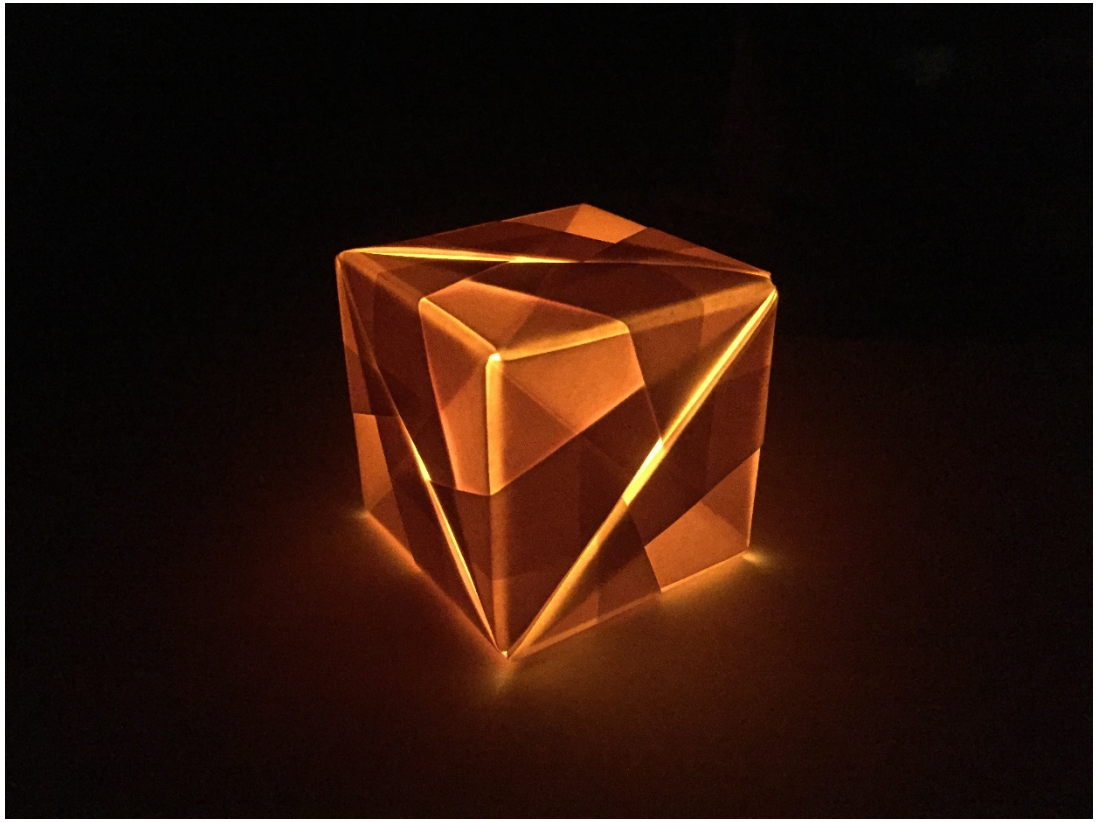
Octahedron





Nanoparticles in Real Life

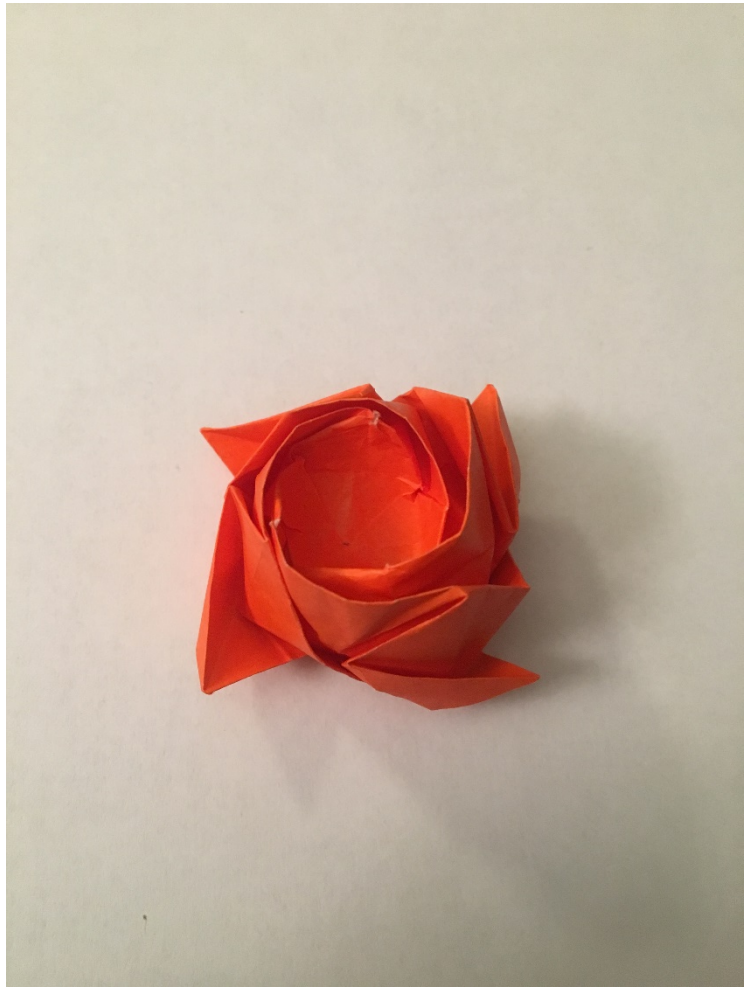
Sonobe Cube Lamp (6 Units)



Stellated Octahedron (12 Units)

Stellated Icosahedron (30 Units)

Kawasaki Rose



Some Tips for Folding!

- The key to origami is small, uncomplicated folds.
- Precision goes a long way, especially when there are many folds!
- Fold each crease very well.
- Follow the instructions.
- Be patient.
- Have fun!

Folding the Sonobe Unit

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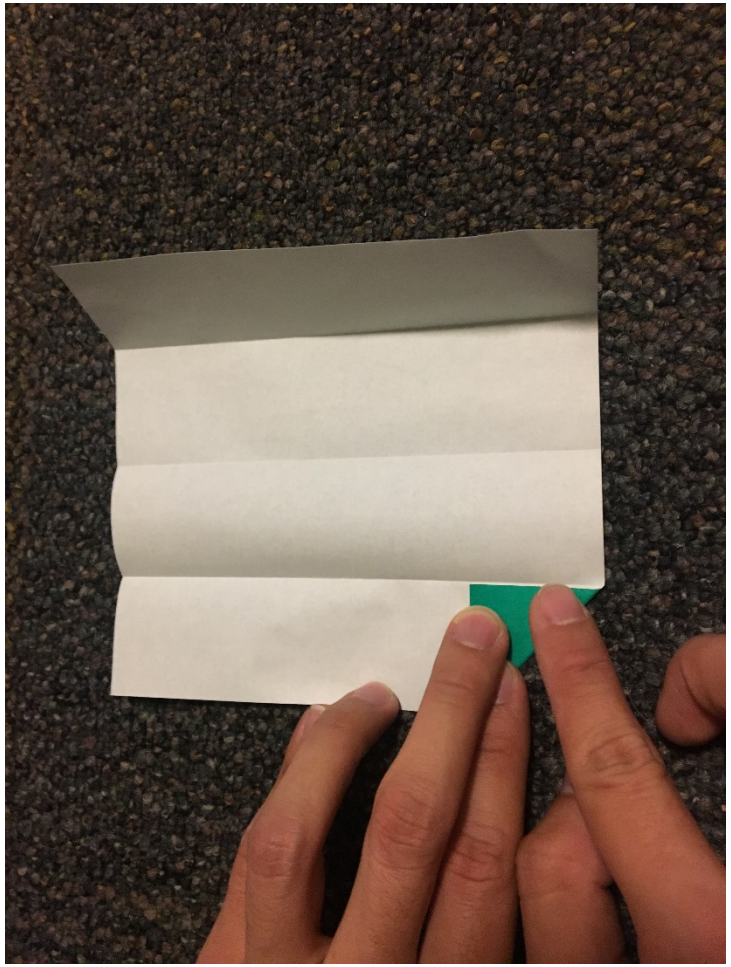

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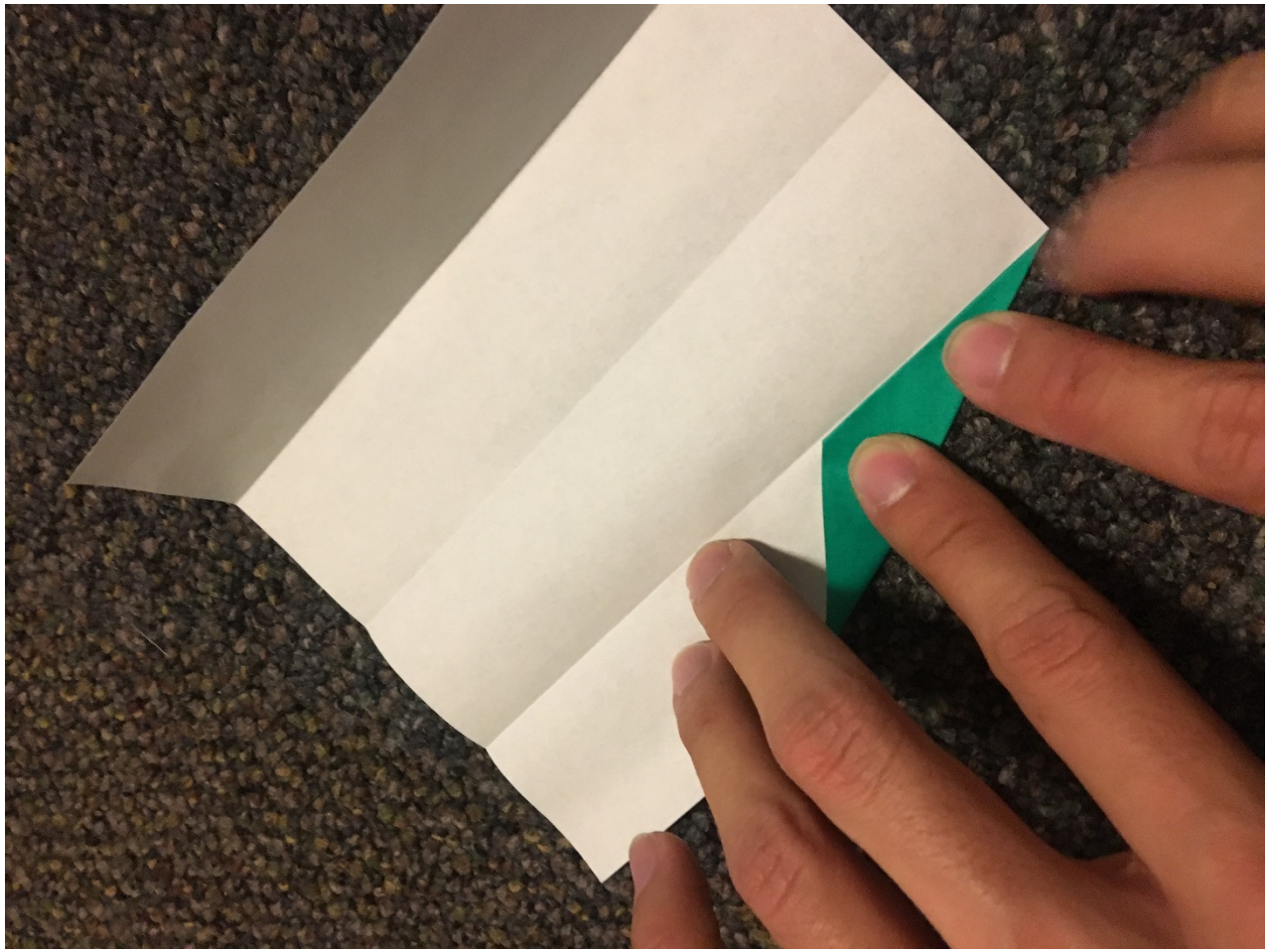

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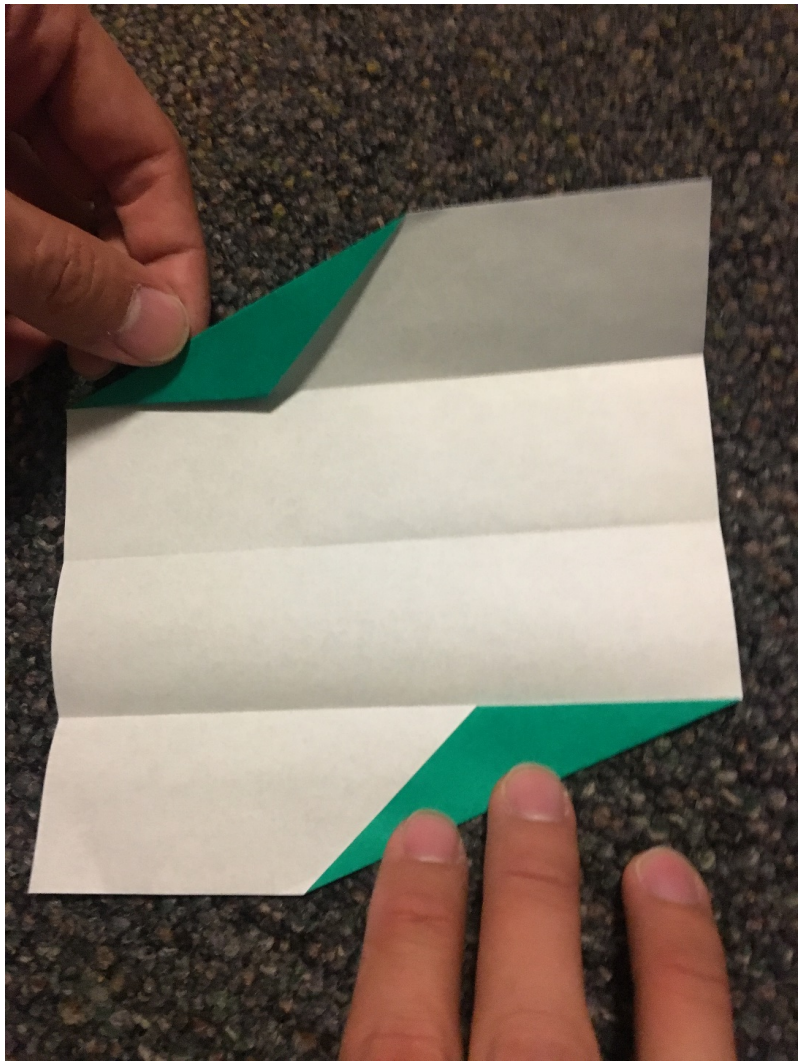

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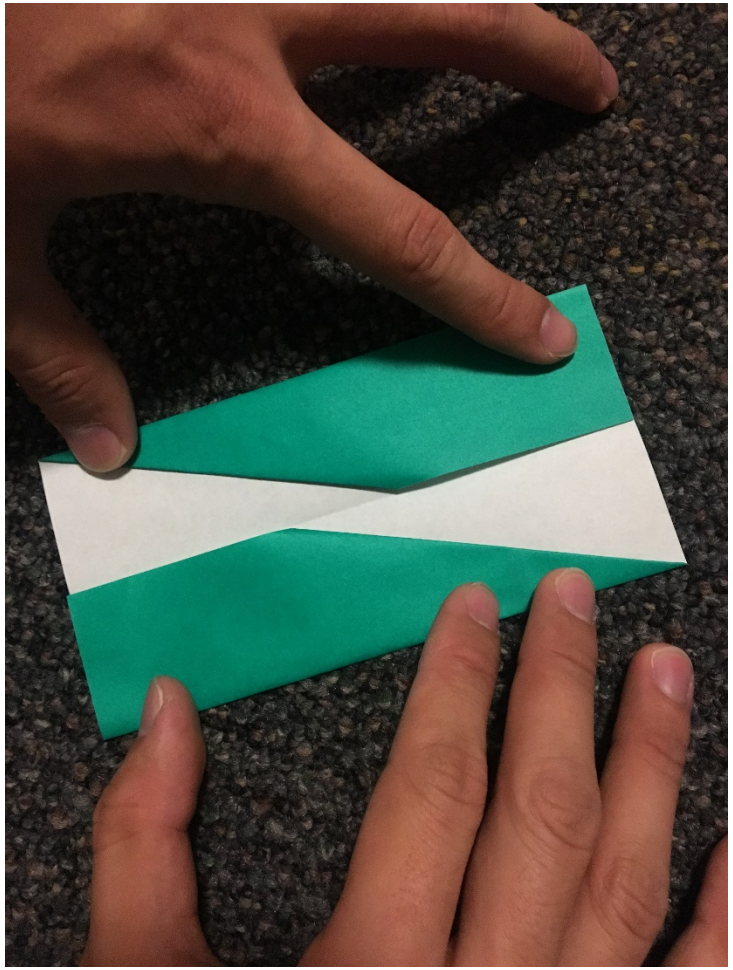

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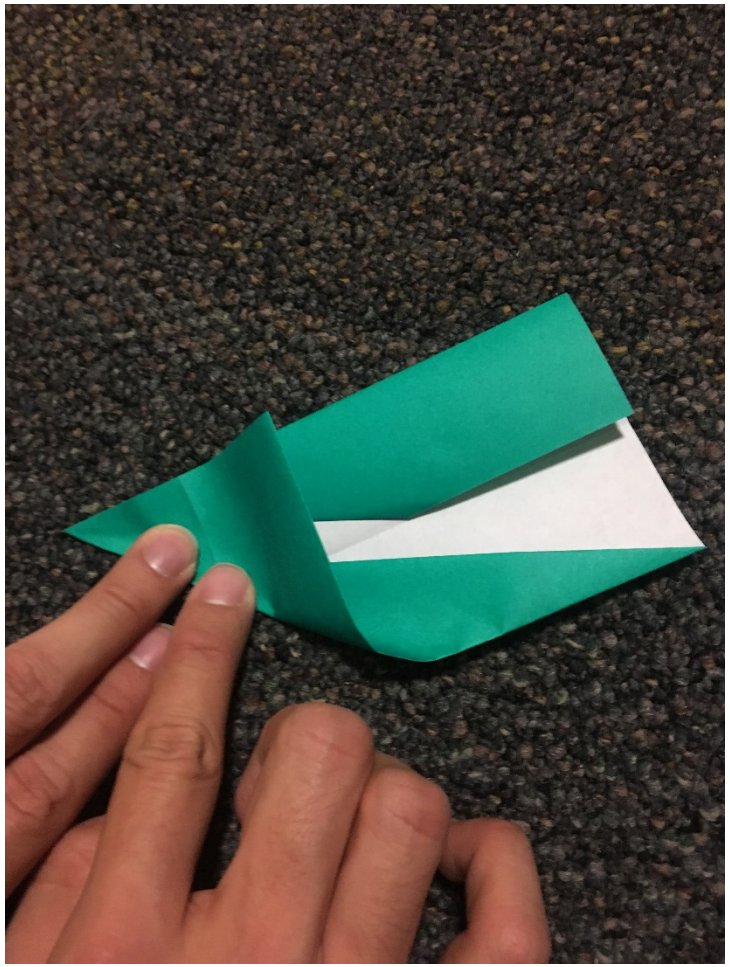

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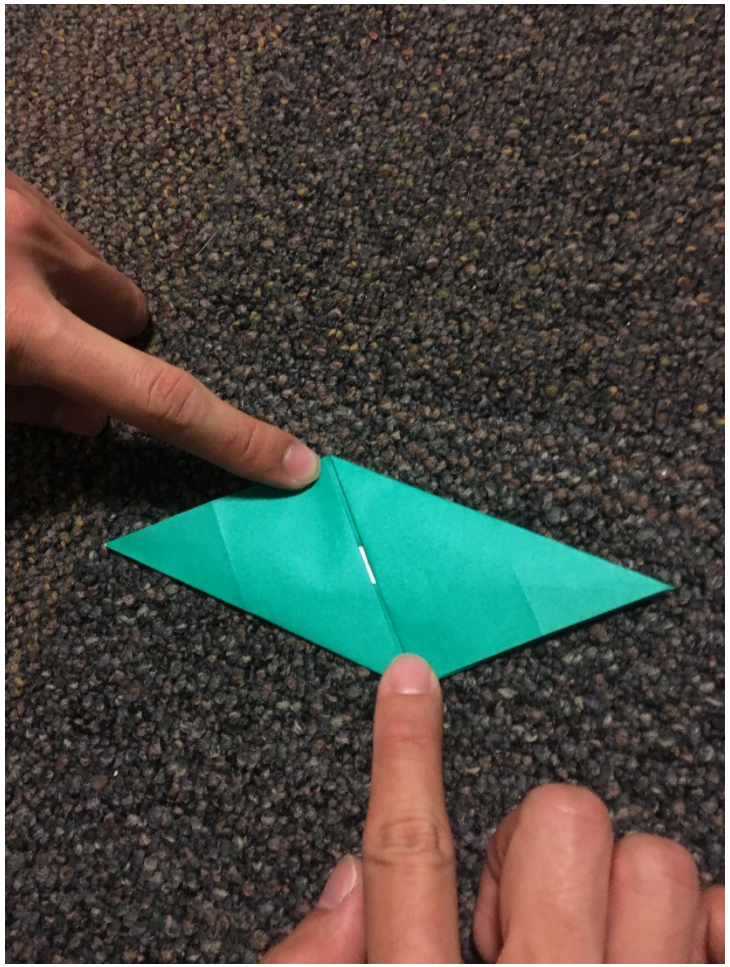

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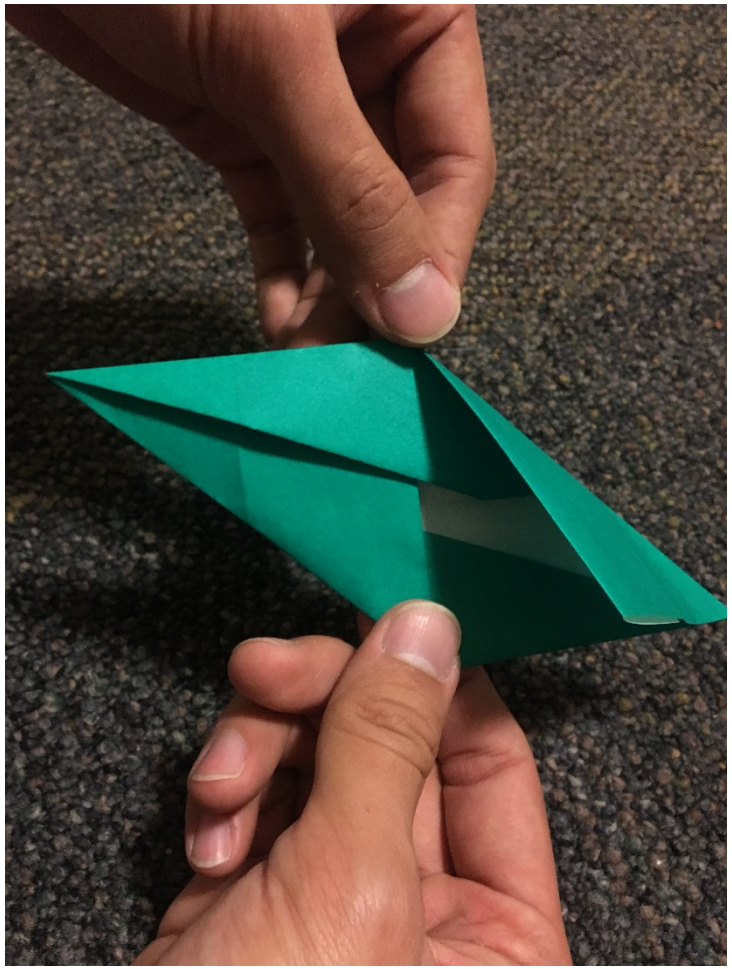

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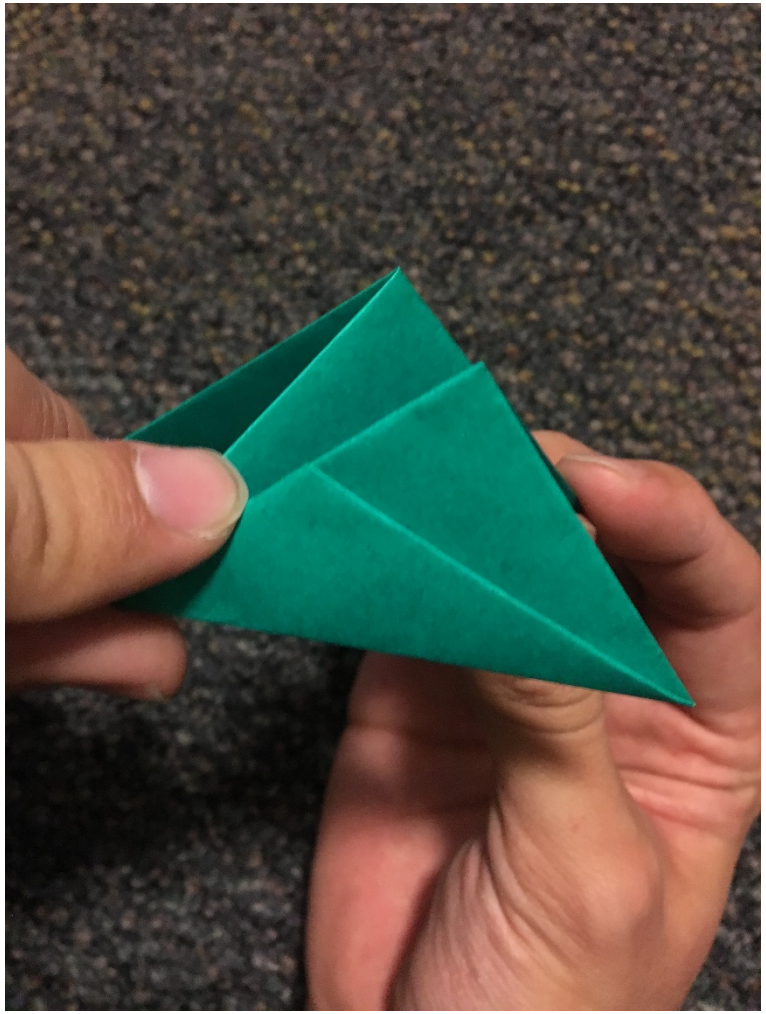

Folding the Sonobe Unit – Complete!