

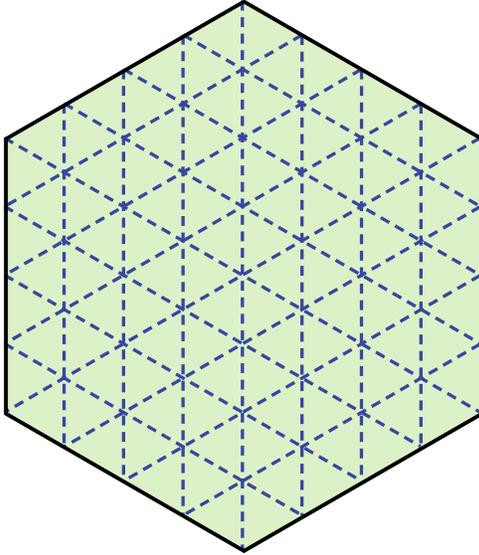
# ACORN

Design and Instructions by Beth Johnson

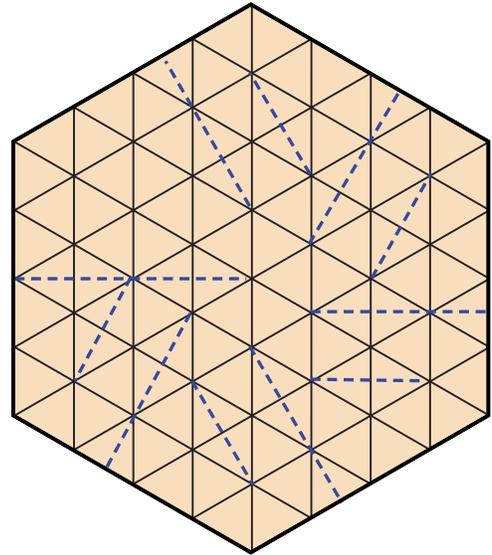
Recommended paper: Duo, Medium weight

Recommended Paper size: 6 inches or larger.

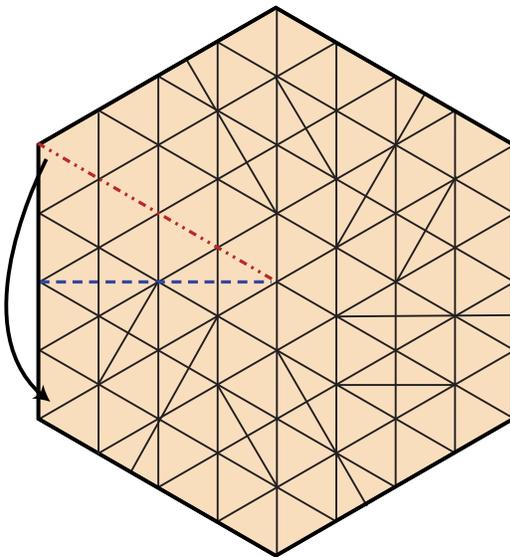
Difficulty level: High Intermediate



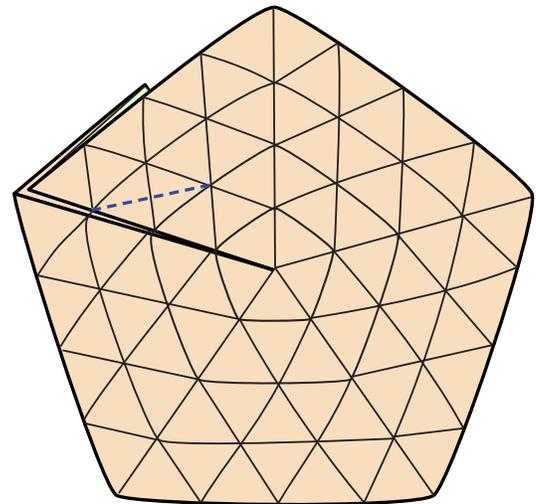
1. Start with a triangle grid of 8ths. All creases should be valley folds. \*\*\*Turn paper over\*\*\*



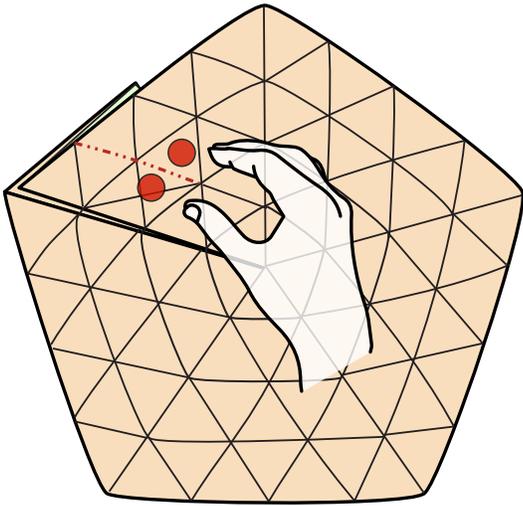
2. Fold and unfold, all valley fold precreases.



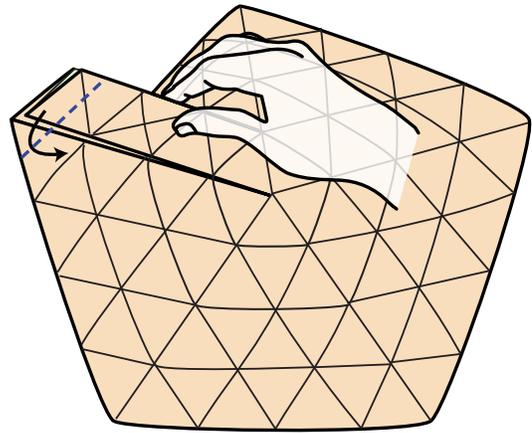
3. Pleat along existing creases. The model will fold into a convex, domed pentagon.



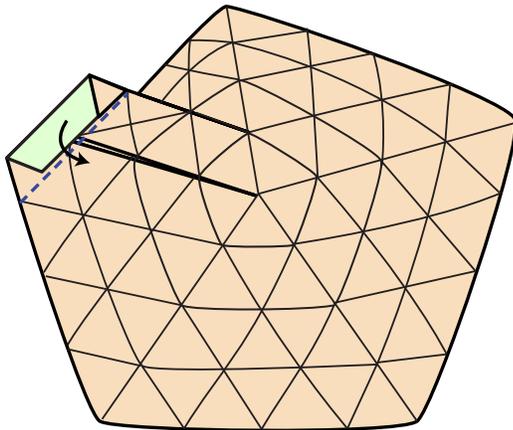
4. Result. Valley fold a precrease through all layers. This crease is currently only on the bottom later (from step 2) and is visible on the backside of the model. Hint: It's easier to pinch as a mountain fold from behind.



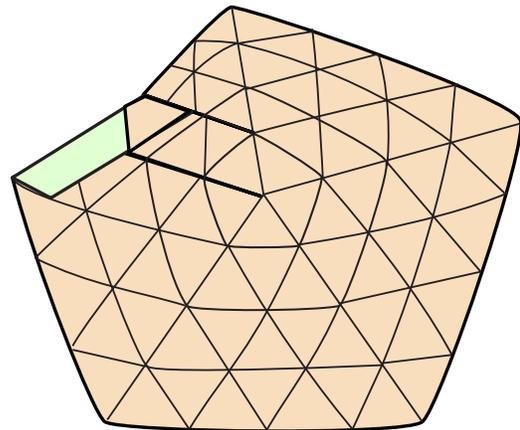
5. Pinch paper in half where designated, through all layers. Model will not lay flat.



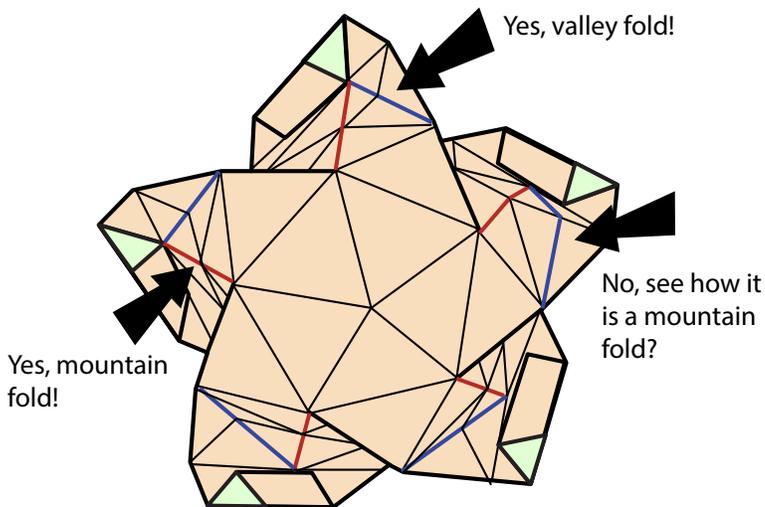
6. While holding the flap together, valley fold the corner by folding the raw edges to the first 1/8th grid crease. This will be a new crease.



7. Valley fold the corner again, this time you are folding along the existing 1/8th grid crease.



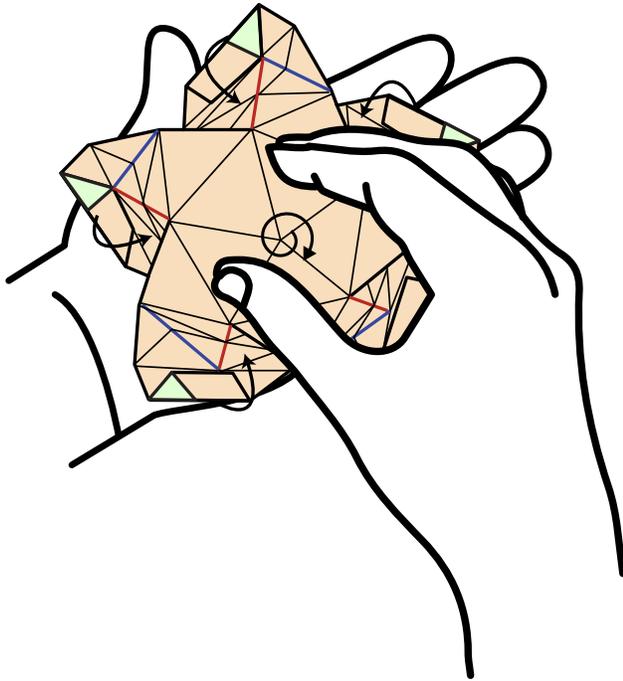
8. Result, repeat on remaining 4 corners. Note: the edges will not stay rolled twice, the second valley fold will unroll as you work around the model.



9. Result. Note how the corner flaps have unrolled once, this is necessary to collapse. But make sure that the first crease on those flaps stays folded.

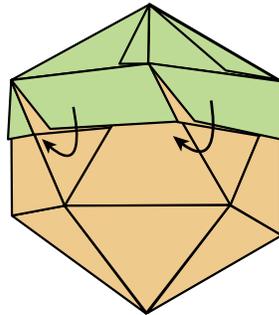
Next, make sure the valley fold precrease (step 2) are oriented correctly.

Finally, make sure the red lines are oriented as mountain folds.

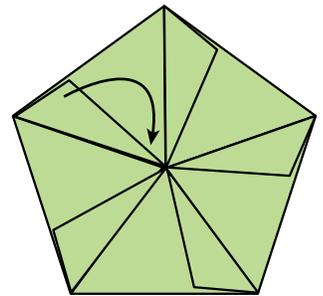


10. To collapse the model, hold the open end of the model in the palm of your hand, and gently twist the closed end of the model clockwise with your other hand. As it begins to close, you will need to re-roll the corner flap creases made in step 7. They will begin to overlap with each other as you collapse the model.

The model collapse into an icosahedron with a color changed cap.

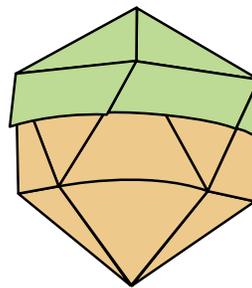
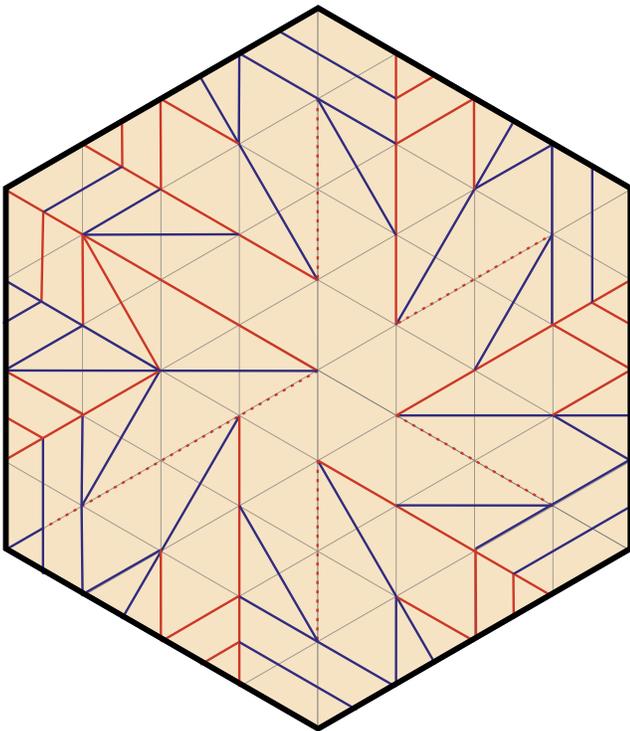


Side View

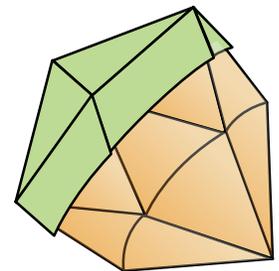


Top View

11. Collapsed! There are triangle flaps around the cap that can tuck into pockets to lock the model. You can also further lock the model (optional) by layering the rolled corners over each other.



Finished acorn!



Finished acorn, alternate shaping with sides indented.

Full Crease Pattern. Dashed red lines are "soft" mountain folds. They need to be oriented as mountain creases in order to be able to collapse the model.