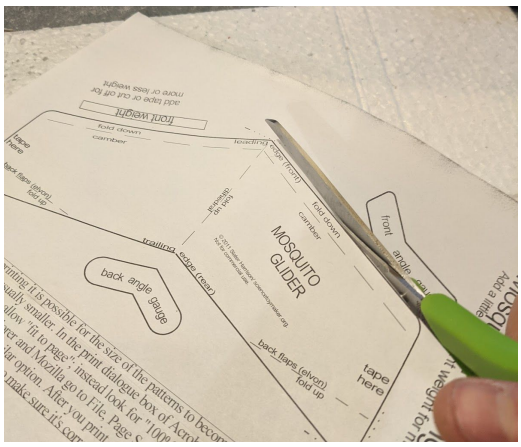
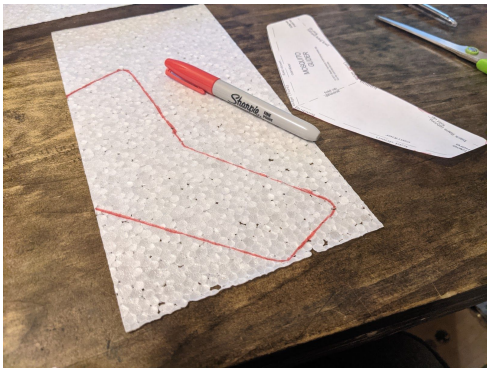
Walk Along Glider Instructions

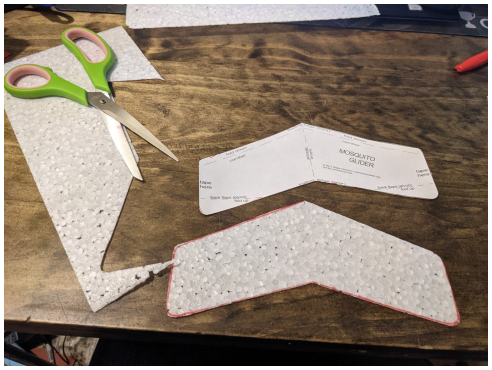
Step 1: Cut Out the paper template



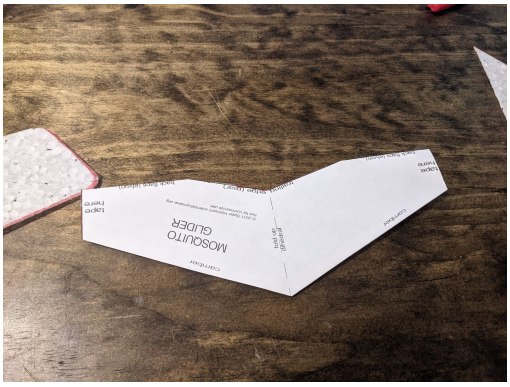
Step 2: Trace the wing shape onto a piece of foam with a marker. If you're careful, each sheet of foam can make two gliders



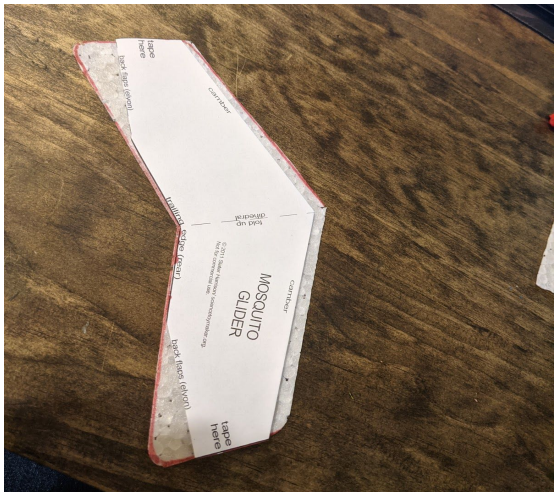
Step 3: Using sharp scissors, cut the wing shape out of the foam



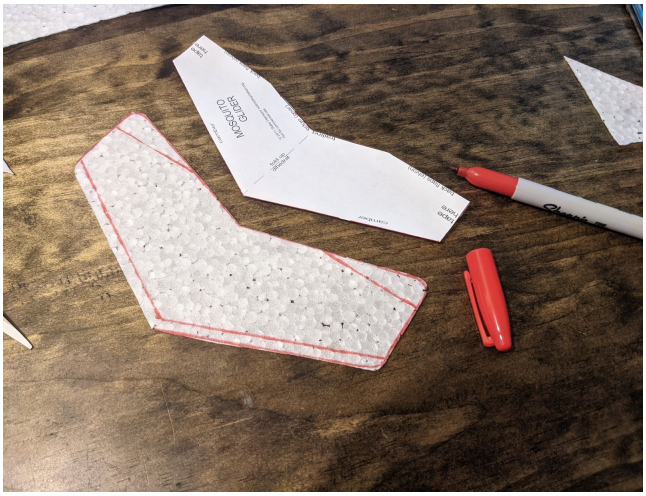
Step 4: Fold fold and crease all the dotted lines on the paper template



Step 5: Line up the paper template with the foam wing using the trailing edge as a reference.



Step 6: Trace along the folded parts of the template with a marker.

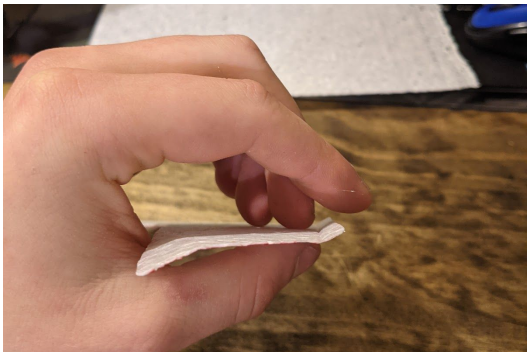


Step 7: Using the edge of a credit card, make an indentation in the foam along the folded dotted lines of the template.

Step 8: Carefully fold the foam along the elevon lines you made on the trailing edge.

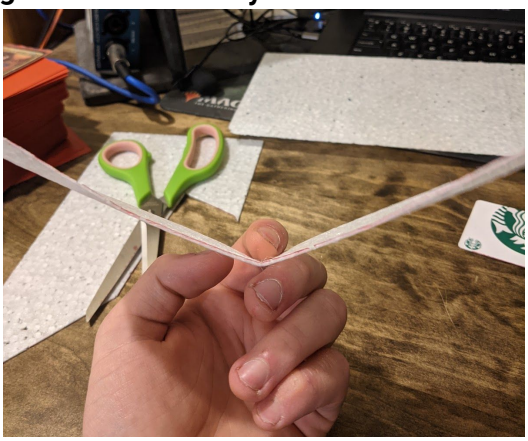
Step 9: Repeat the previous step on the front edge, this time folding in the opposite direction.

The result should look like this from the side profile:



Step 10: Lay the wing on a flat surface and make another credit card line along the very center of the wing

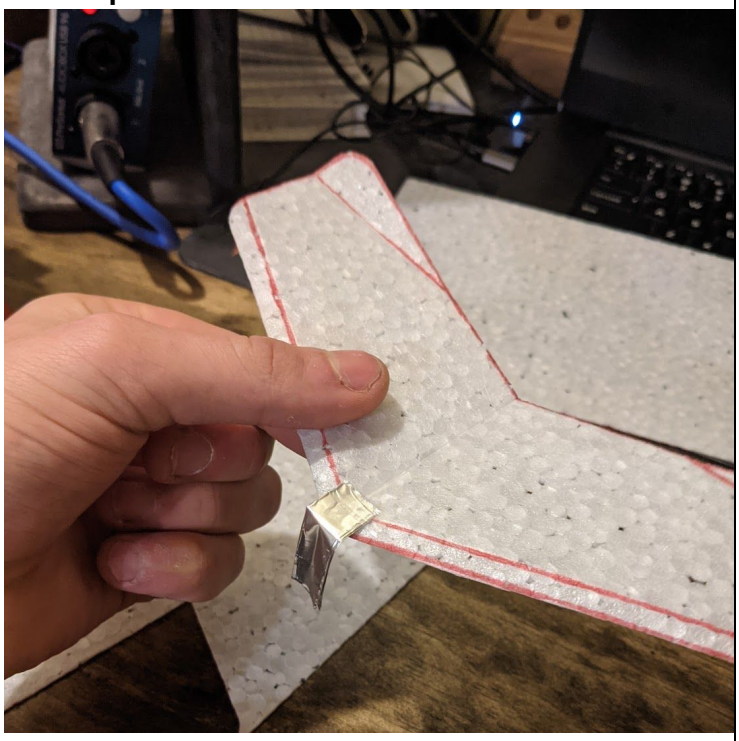
Step 11: Bend the wing along the center line you just created. This bend is called dihedral. It gives the glider more stability.



Step 12: Fold the piece of tinfoil until it is a thin strip about ¼ inches wide.

Step 13: Cut the strip into 4 roughly equal pieces. You will only need one per glider.

Step 14: Using a small piece of clear tape, attach one of the pieces of foil on top of the wing as close to the nose as possible.



Step 15: hold the plane up, then drop it. The extra weight on the nose of the glider will probably cause it to nosedive.

Step 16: Cut foil off of the plane gradually until it is no longer nose heavy (no more nose dives). Try to reduce as much weight as possible without making the glider tail heavy. 	**Step 17: Changing the amount of weight at the nose f the glider, increasing the angle of the elevons on the back of the glider, or redefining the folds at the front of the wing will change the flight performance of the glider. Experiment and see how well you can make it fly.**
Step 18: When your glider is finished, it should fly longer and slower than any paper airplane. If you want to try sustained flight with a piece of cardboard or your hands, check out the video (https://www.youtube.com/watch?v=tac2KXEuANU&feature=youtu.be) created by Science Toy Maker on YouTube.	