

Fancy Foam Models, LLC
635 Laramie Cir. Maize, Ks. 67101
www.fancyfoam.com

Assembly Instructions for the Flip Flop.

Recommended Electronics and motors:
Motor: 2730-1500 or any equivalent motor

Speed control: 10-12 amp.

Battery: 300 to 500, 2 or 3 cell, 20C rated or equivalent.

Receiver: 4 channel.

Servos: (3) HXT 900.

Disclaimer: Fancy Foam Models has done everything we can to caution and inform the end user regarding the use of Lithium polymer battery technology. We are in no way responsible for any damage that may be caused by these batteries. Please read, understand and follow all instructions for the charger and batteries. Failure to use this battery technology properly can result in the risk of fire. If you are not comfortable with this technology, return the batteries packs and kit to us for a refund. By building the kit and using the batteries, you accept full responsibility for the safety of these batteries.

Recommended building methods and glues:

Much of the construction of this model is done by laying the parts on a flat table. It is strongly recommended that you put wax paper down on the surface first so any excess glue doesn't soak through the foam and glue the parts to the table. For all assembly, use "Welders" contact adhesive. The hinges are also done with Welders, see our video on the web site. Hot glue can be used to attach the servos and control horns.

Starting out:

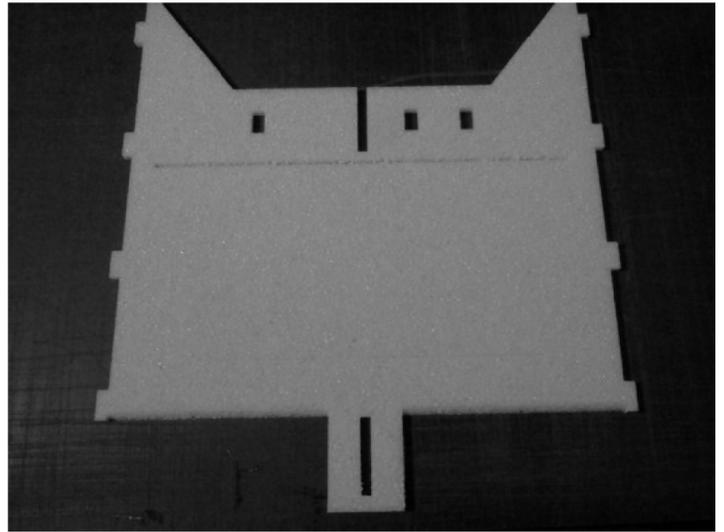
Look over the parts and dry fit them together to check for proper fit.

Painting:

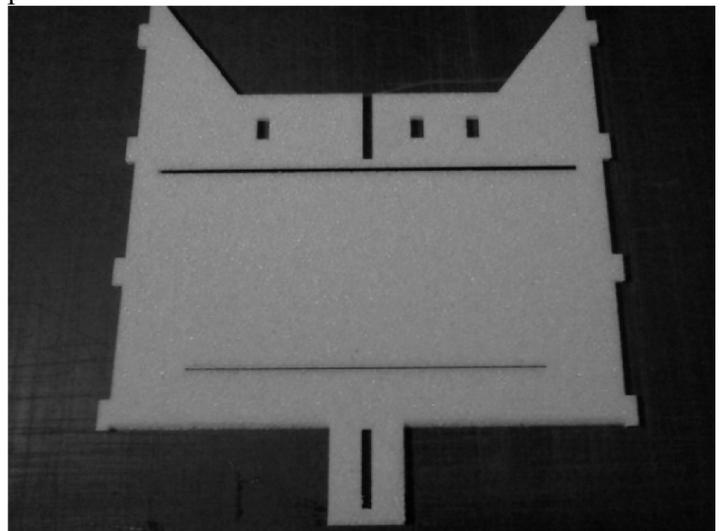
It is easiest to paint the parts before assembly. Card stock can be used to make templates for stripes, checkers, ect... Epp does is not affected much by solvents so Krylon, Testors and airbrush paints can be used.

Horizontal parts assembly:

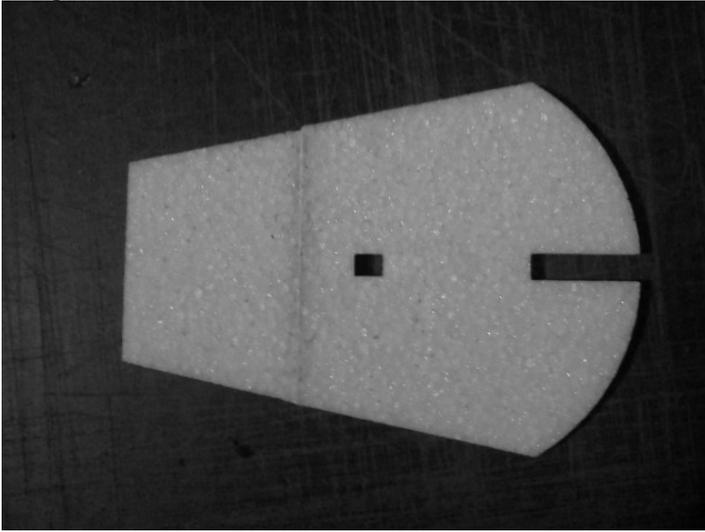
Glue the two halves of the main deck together. Do not glue the joint at the back as the vertical stabilizer will need to be inserted there.



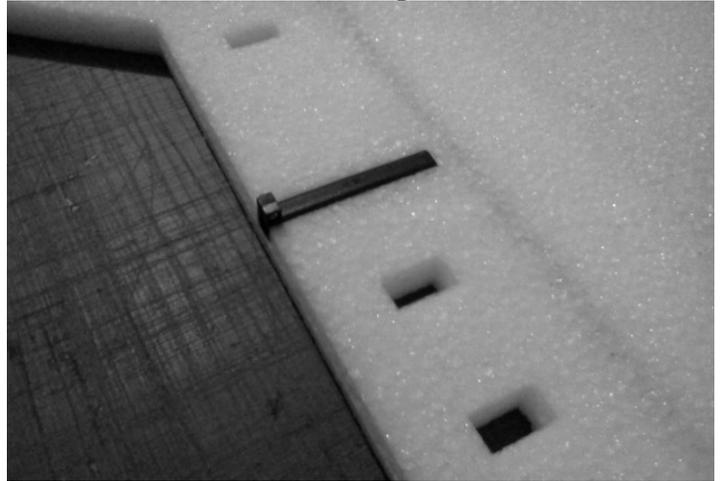
Glue in the front spar tube and back spar flat carbon pieces.



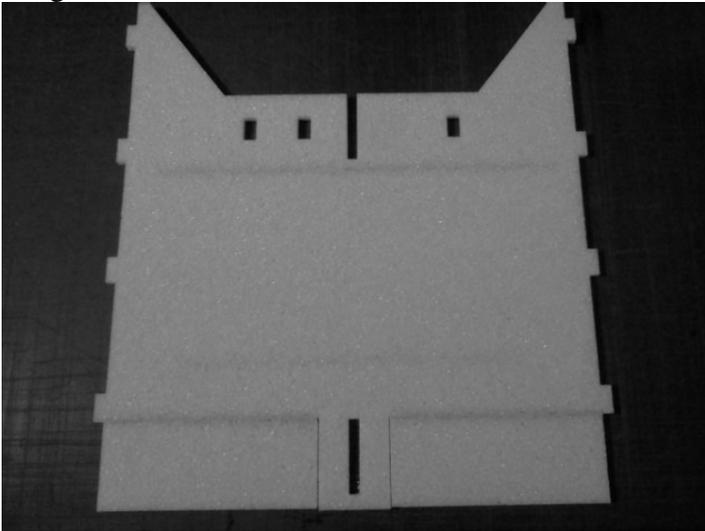
Hinge the rudder to the vertical stabilizer.



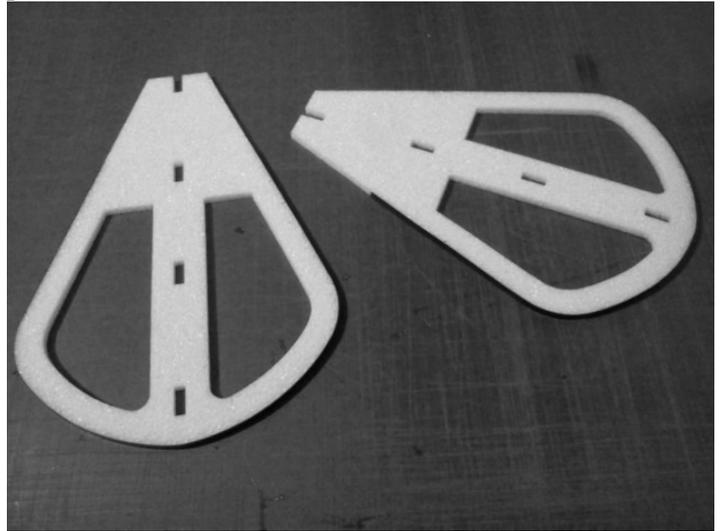
Glue the motor stick mount in place.



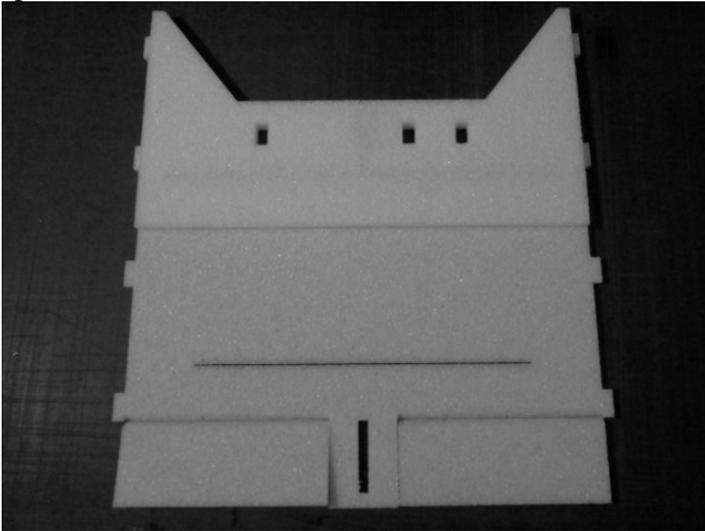
Hinge the elevons to the main deck.



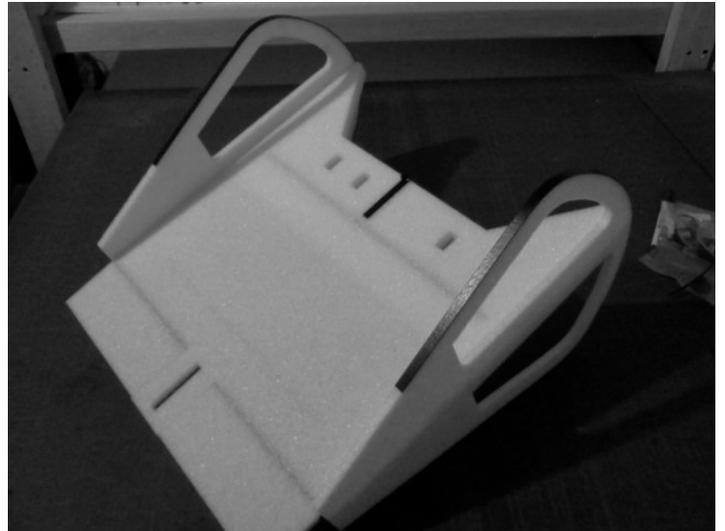
Wrap the plastic skids around the side pieces so that they are even and mark the location of the ends. Apply glue to the edge of the foam and to the rough side of the skid. When the glue is tacky, press the skids in place.



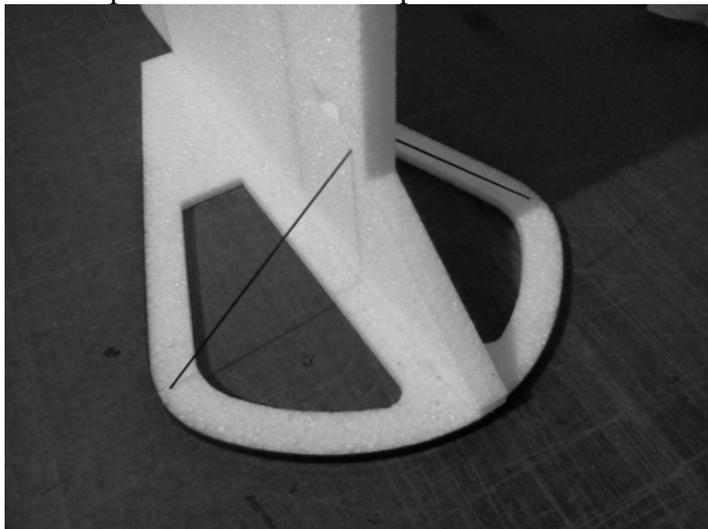
Glue the main deck doubler in place covering the front spar.



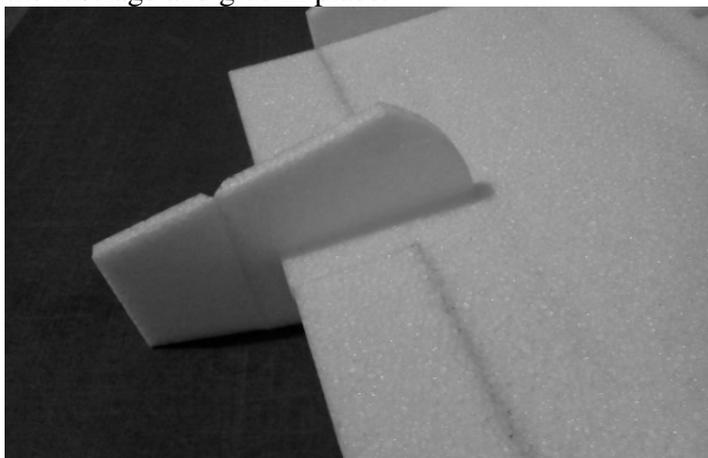
Glue the side pieces to the sides of the main deck.



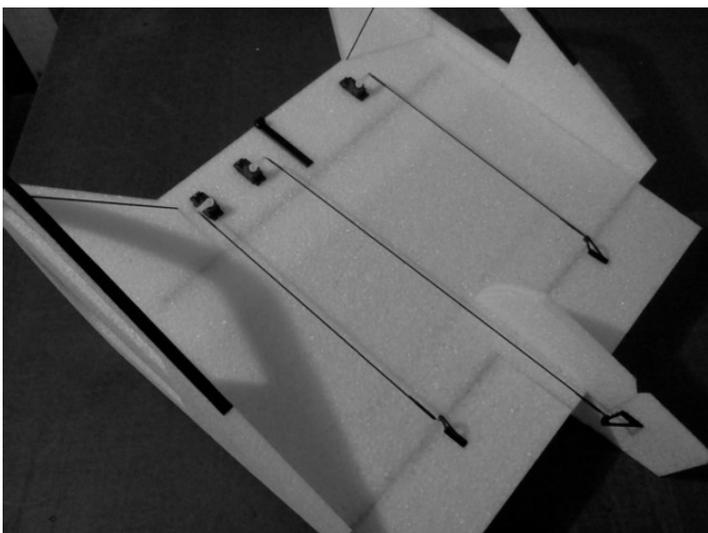
Cut four pieces of carbon rod 7" long. Insert and glue them in place to brace the side pieces to the main deck.



Insert the vertical stabilizer into the slot in the back of the fuselage and glue in place.



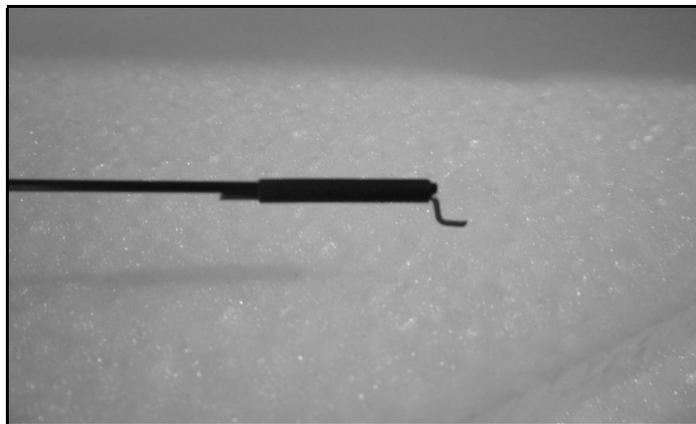
Install the servos in their pockets.



Position and glue the control horns in place. Line them

up with the ends of the servo arms and so the holes in the control horn are above the hinge line.

With all the surfaces set to zero, measure the distance between servo arm holes and control horn holes. Cut a piece of 1.5mm carbon rod for each push rod to the measured lengths. Cut a 1.5" long piece of 1/32" wire and make a z-bend on one end. Slide a 1" length of heat shrink over each end of the carbon rod and then slide in a z-bend wire. Shrink the heat shrink tubing with a heat gun or flame. The z-bend wire is not glued in position yet and can be moved for final adjustments.



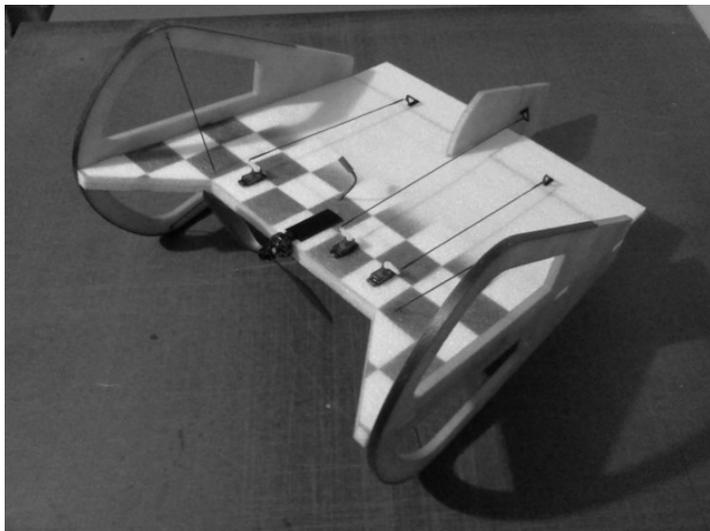
Remove the servo arm and assemble the pushrods to the servo arm and control horns. With the servo centered reattach the servo horn. Make any final adjustments to the z-bend location. Use regular (not foam safe) thin CA to secure the z-bends to the push rods by placing a drop at each end of the heat shrink tubing. If you get some CA on the servo or control horn this is ok and moving the controls will allow the z-bend to break loose.

Note: This push rod setup will act to save your servos. In the event of an impact the glue holding the z-bend to the push rod will likely give before the servo gears. If the z-bends start to slide in the heat shrink a drop of CA will secure them again.

Mount the motor to the stick mount.

Velcro the speed control and receiver to the bottom of the main deck.

The last step is to attach the battery to the top of the main deck with velcro. Locate the battery as far forward as possible. If using a battery larger than a 500 3s then you may need to move it back slightly.



Center of Gravity:

3” aft of the leading edge behind the motor.

Flight set-up:

The Flip Flop was designed to fly and look the same right side up or up side down. With a little practice you can keep track of the orientation while flying. The learning process can be made easier by adding some markings to the top of the plane for orientation.

Use your computer radio to set the final sub-trims, exponential and dual rates. Double check the control directions before your first flight. **With proper CG, the plane should fly nearly the same upright or upside-down.** Good pilots experiment with various battery locations until the CG feels just right.

For indoor flying, we use 2 or 3 cell lipo packs rated at 20C. Batteries of 300 to 500 mah are perfect for giving good flight times and plenty of power. The final airplane weight should be between 6.0 and 8.0 oz.

The controls can be set up with throws up to 60 degrees

on all surfaces. Low rates would be 30 degrees.

We hope you enjoy your airplane.

Thank You,
Mike & Niki Bailey
Fancy Foam Models