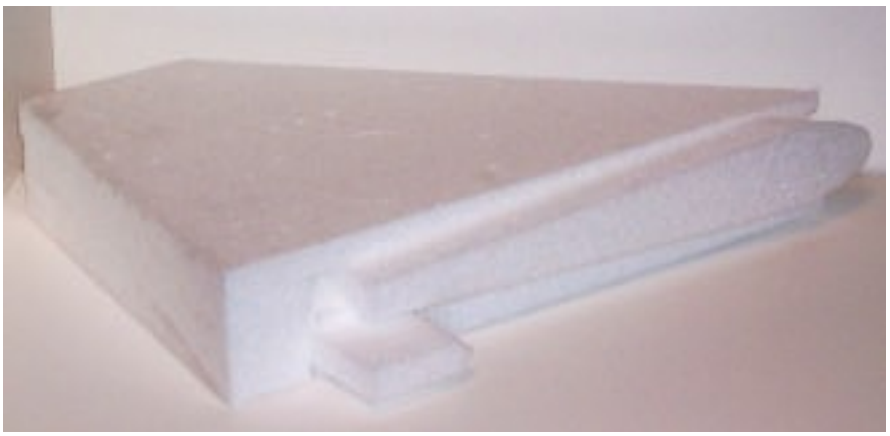
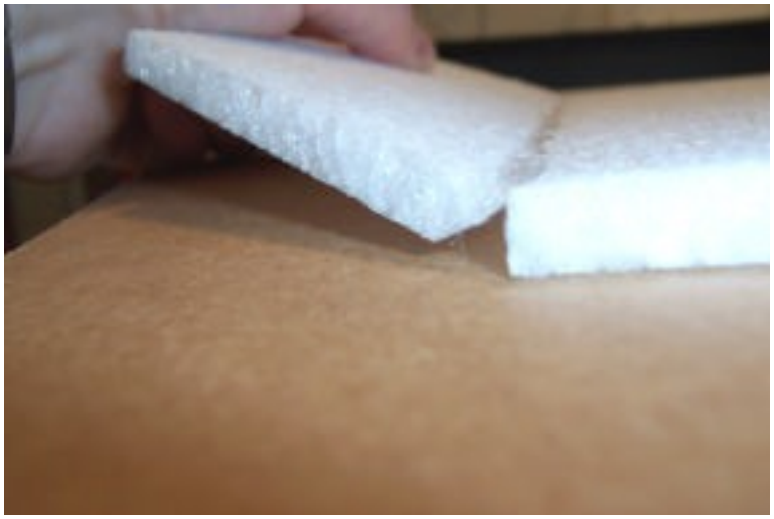
MiniFly Assembly Instructions

Remove wing halves and elevons from large block of foam. Save scraps for repairs.



Save the sheet of foam from between the wing halves. Gently rub wing halves together to remove any slag. Do the same with elevons. Glue the wing halves together with hot glue or Welder glue on a flat surface. Make sure to orient the wing properly. The flat side of the wing is the bottom.

With the wings glued together, it is time to install the elevons. Place the elevons on the correct side of the wing and leave approximately ¼" – 1/2" of space between the elevons at the center of the wing. With the gap between the elevons, you will have some overhang on the tips of the elevons – we will cut this off after the elevons are glued on. The elevons come beveled, make sure the beveled side goes "down."



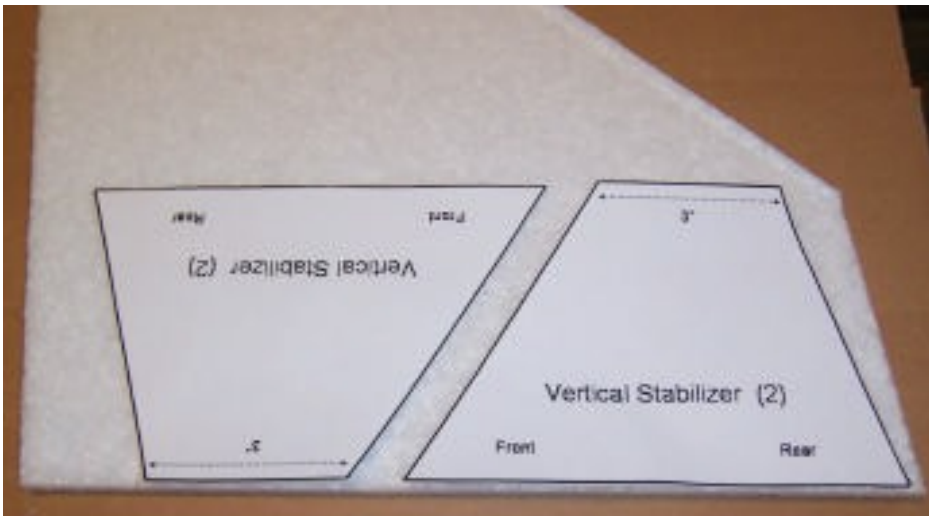
Now comes the time to glue the elevons down. Perhaps the best glue for an EPP to EPP hinge is Welder glue. If you do not wish to use Welder, hot glue works very well, also. Once you choose the glue you'd like to use, the elevons must be lined up onto the wing. The 45 degree bevel needs to be facing down along trailing edge of plane. Also ensure there is no gap at the hinge line and choose one of the following methods:

If using Welder – apply a bead of glue a little thicker than spaghetti noodle along the complete length of the elevon on the hingeline and then smooth with a razor blade.

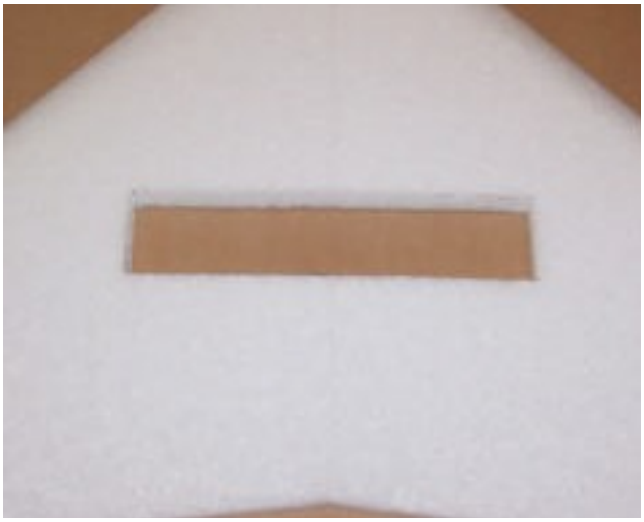
If using hot glue - quickly apply a 2" long 1/8" wide bead of hot glue along the hinge line. Be sure the bead covers the elevon and trailing edge of the plane. Very quickly while the glue is still hot flatten out the bead with a new razor blade. This flattens out the bead and pulls the heat out of the glue so it sets quicker. Repeat this process until the entire length of the hinge is complete. Hinge the other elevon using the same method. Flattened bead should be less than ¼" wide or elevon will be difficult to move. Once glue has cooled flex elevon up and down to loosen hinge.

With the hinges installed, you can trim the ends of the elevons to suit your tastes. There is no magic size for the cut, just cut what looks good to you.

We need to prep the vertical stabs. Using our SuperFly vertical stab template, cut 1.5" off the front, top and rear sides to achieve the shape you'd like. The shape of the vertical stabs is no precise shape. If you'd like to get custom with it – go ahead! The vertical stabs will be cut from the foam that was between your wing halves.



Now comes time to cut the prop slot. This slot is going to vary in distance from the trailing edge of the wing, due to the different setups used. We recommend taping all your gear onto the wing and then deciding where the motor will need to ride before cutting the slot. Once you find this location, you can begin cutting the slot. The slot should be approximately 1.5" deep and 8 3/4" wide.



Position fins just on the outside of the prop slot with the long slope facing the nose of the plane. The back end of the fin should be just forward of the elevon hinge line, to prevent interference. Use the Vertical Stabilizer Angle Template and glue fins in place. The fins should tilt out towards the wingtips. You will need to cut or sand an angle on the bottom of the fin. A sharp razor blade works great for this. Just trim off a little bit on the "outside" of the bottom of the vertical stab. Basically – just shorten the side it will lean to.

The motor is installed directly onto the rear of the canopy using the included black plastic motor mount. Trim this to fit your motor mount. Drill the proper sized holes into the plastic mount and install your motor mount onto the plate and install motor.

Use hot glue to secure motor mount assembly onto the canopy as shown. Motor should be centered on the canopy as viewed from the top. Position motor up slightly away from where it may touch the airplane.

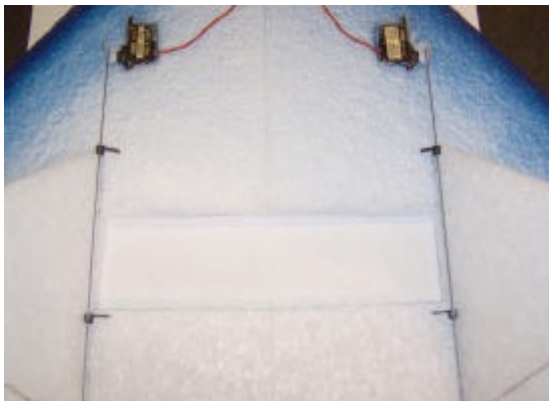
Hot Glue Control Horns onto elevon as shown. Horn should line up just to the inside of the fin when viewed from the back and when viewed from the side the holes should line up over the hinge line.

Use plenty of glue all around the base!

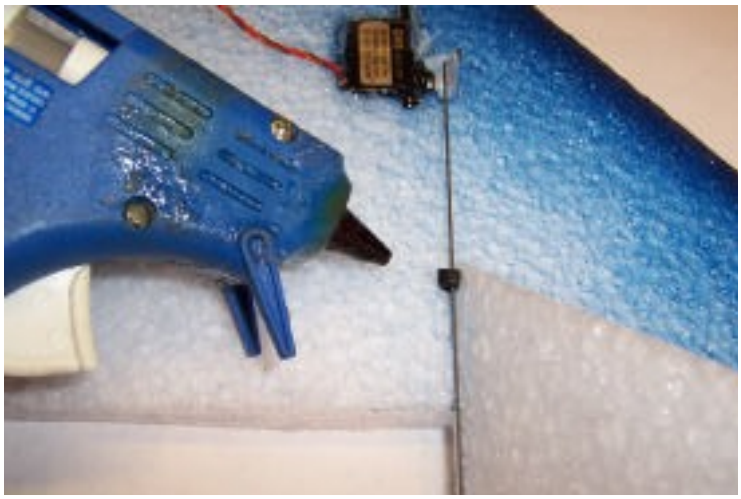
Make a "Z" bend on one end of each pushrod.

Install the servos. Mark where servo goes and cut or melt out enough foam to fit the servo. Glue in place with hot glue.

Cut tips of zip ties off as shown. Slide the pushrod through (2) zip tie heads on each side.



Install "Z" bends into servo arms. Center servo arms and position servos so that the pushrod almost touches the inside of the fins. Elevons should be flat on the bench. Push zip ties into foam and secure with a small amount of hot glue.
(Make sure you don't glue the pushrod to the plane, pushrods should move freely)



Make a "L" bend on pushrod at control horn and secure with EZ Link.

Solder connector to speed control and battery. Double check polarity. Solder speed control wires to motor. If motor runs backwards simply switch any two wires to the motor. Plug speed control and servos into receiver. Follow your transmitters manual for proper elevon setup.
Glue speed control and receiver to underside of canopy. Antenna may be secured down with hot glue and goes along the outside of right fin and back. Make sure wires and foam do not touch the motor.

Center of Gravity (CG) is 7" back from the tip of the nose on the underside of the plane. (6.5"-7.5" range)

To set the CG you must place the battery in the canopy slot and temporarily set everything in place. Prop must be installed. You will need to move the canopy (with battery installed) back or forward to

get the plane to balance on the 7.0" mark. The prop can end up slightly forward or back in the prop slot, this is OK. Once the plane balances make a mark where the canopy should go. Remove the battery then glue the canopy in place. Press canopy down firmly making sure the motor shaft is lined up straight along the center line of the plane.

Set control throws for 3/4" up and 3/4" down. You may adjust them later to suit you flying style.

Make sure LEFT IS LEFT and RIGHT IS RIGHT. Now is the time to find that out!

Make sure left and right elevons deflect the same amount at full UP elevator and full DOWN elevator. Check this often as any difference will cause the airplane to roll out of loops.

Set elevon trim for 1/8" UP trim to begin with. **Double check 7.0" CG!!**

Now, go fly it like you stole it!

SUPERFLY RC

MiniFly Template

*May not print to scale