

Foame Iix 3D BiPlane

The original plans for a glued-together version were at 3Dbatix.com, but that website shut down a while back. The foldable version is the same except that everything is held together with clear duct tape.

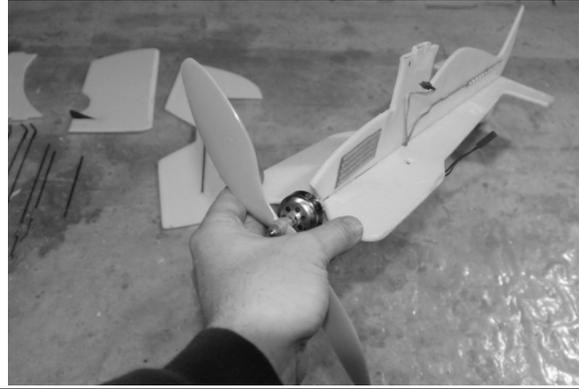
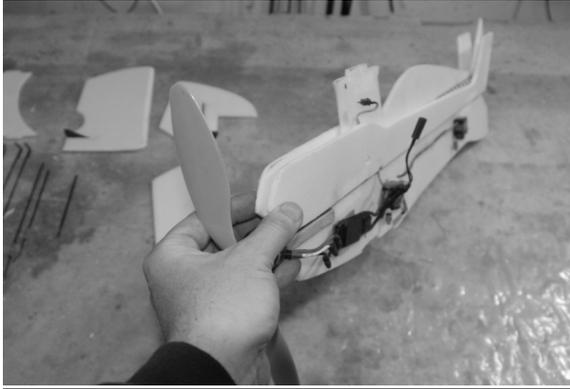


From left to right: Carbon fiber bracing and pushrods, interwing struts, rudder and elevator, fuselage with two side sections folded in, bottom wing, top wing.

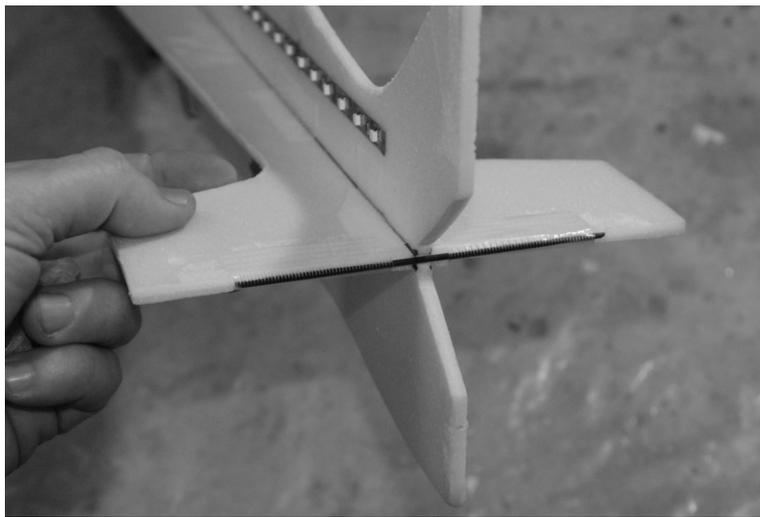
Fuselage:

The main fuselage center piece and two fold-out side pieces remain together, with the motor, esc, receiver, and 4 servos attached.

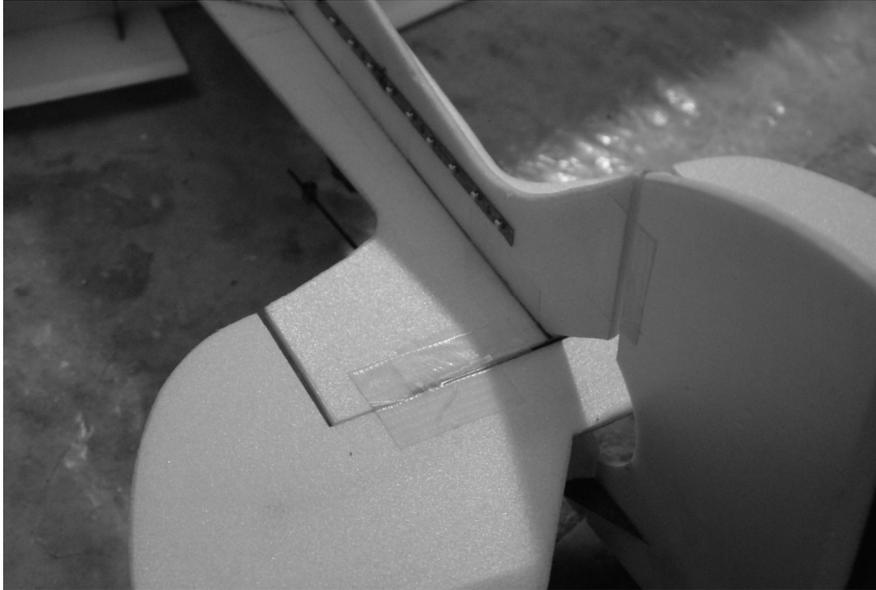
Fold down the two side pieces and use 3 short pieces of tape on the bottom side to hold them in position.



Tape the rear horizontal carbon fiber brace to the horizontal stabilizer with one piece of tape on each side of the vertical stabilizer.



Attach the elevator with one piece of tape across the top, per side. Fold the elevator upwards and add a second piece of tape across the bottom, per side, folded into the taper where the elevator meets the horizontal stab. Attach the rudder using a similar method as the elevator; tape on both sides with one side of the tape folded into the taper.

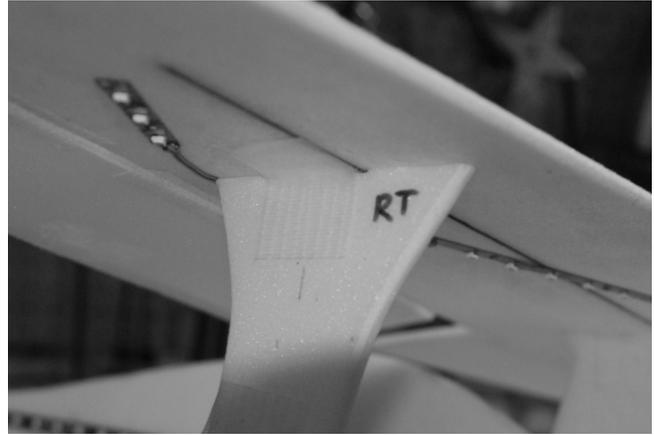


Wings:

Attach the bottom wing with tape on both sides of the fuselage, and put tape across the supporting piece of yellow string at the rear of the wing center. Attach the two interwing struts to the bottom wing with tape on both sides of the struts.



The interwing struts are marked on the top outside with LT (left top) and RT (right top). The markings go to the wingtip ends on each.

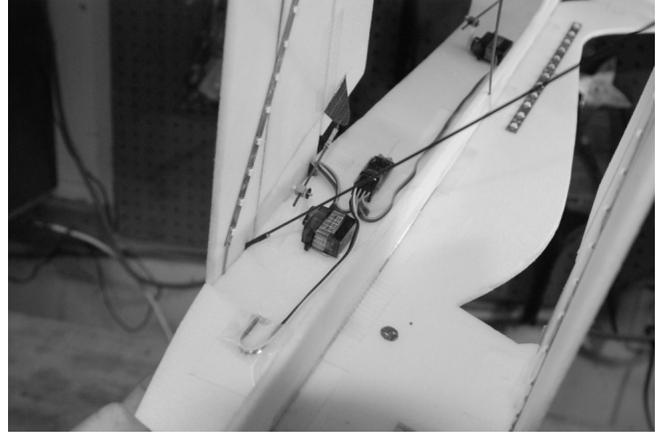
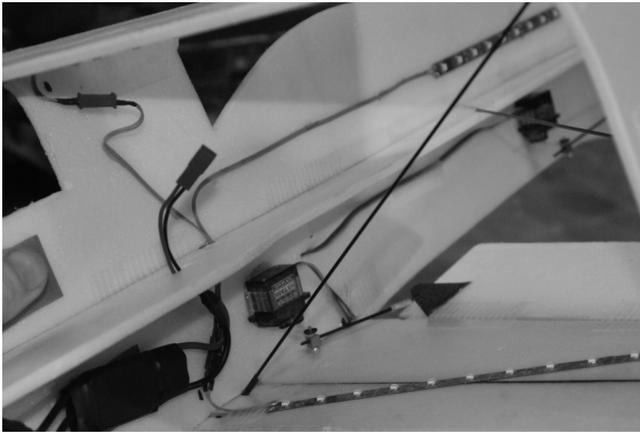


Attach the top wing to the fuselage center section and interwing struts with tape on both sides of where the pieces meet.

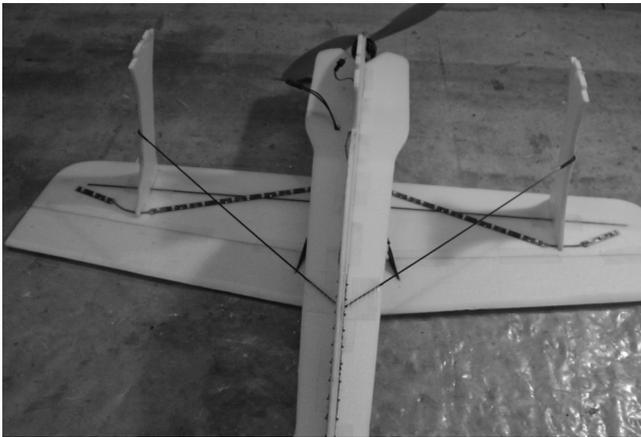


Carbon fiber bracing:

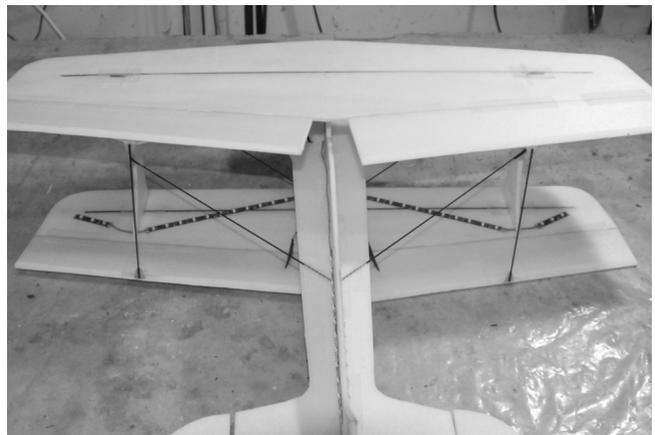
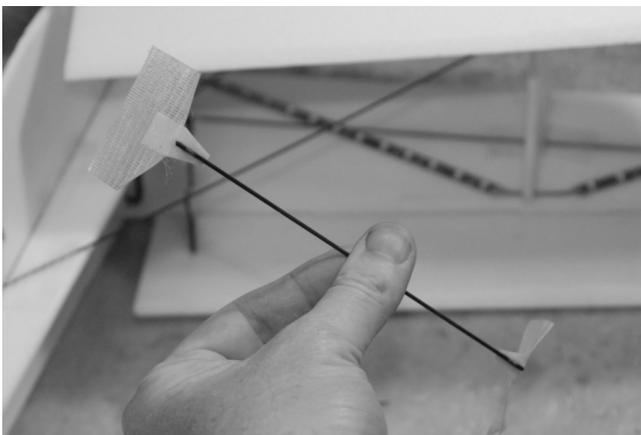
Vertical wing braces: There is string with black shrink wrap at both ends of these vertical carbon fiber braces. Attach the vertical wing bracing by passing the carbon fiber through the hole on the top wing outer section (at the interwing strut) down and through the hole in the bottom wing center. Use tape on the top side of the outer wing sections and on the bottom of the center wing to hold those braces in place.



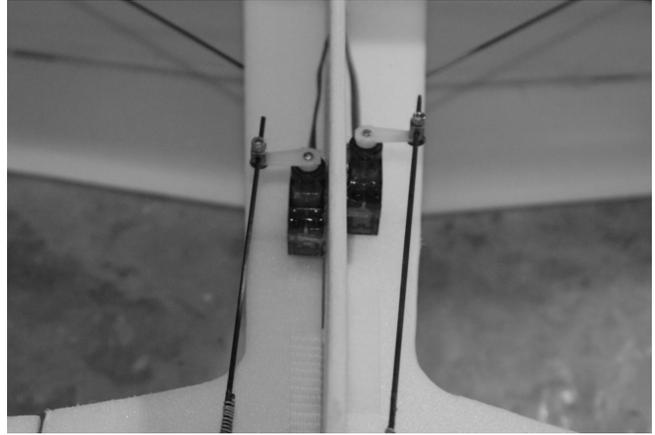
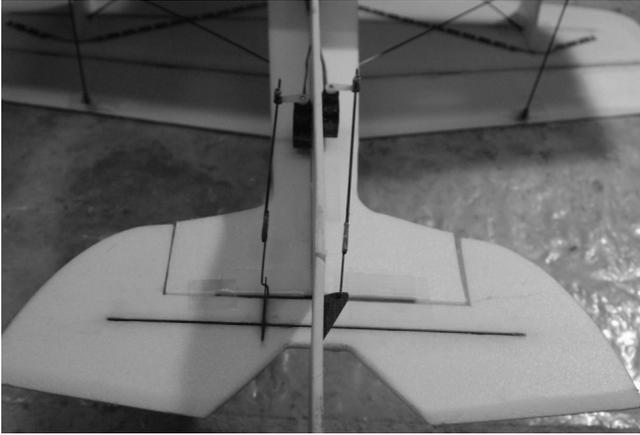
Horizontal wing braces. There is a string with shrink wrap at one end of these carbon fiber braces, and the other end is bare. Attach the string end to the center (up/down) of the interwing struts, and the lay the other end on the top of the side fuselage pieces. Tape both ends to hold this brace in place.



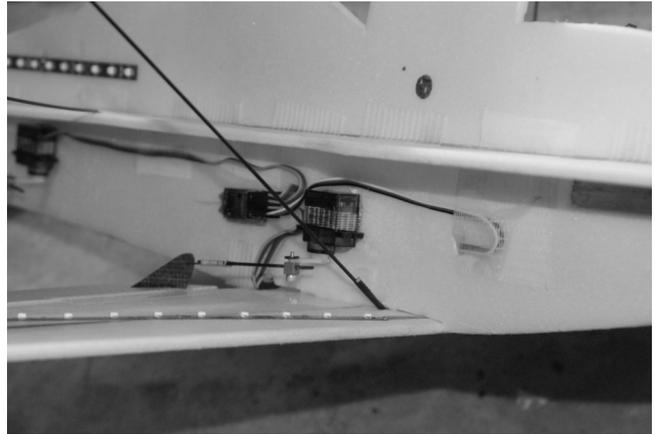
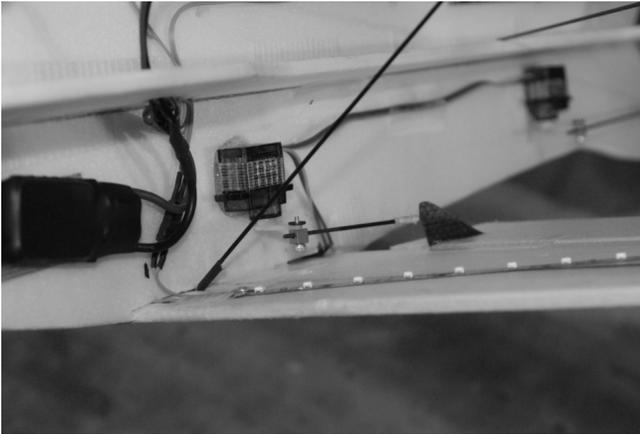
Aileron joiner braces. There are flat flaps at each end of the aileron joiners. Attach these joiners using tape to the center (left/right) of the top and bottom ailerons on each side.



Elevator and rudder carbon fiber pushrods. These rods have Z-bends at one end, and are sized for the servo to surface distance. Set the servo arm to a 90 deg position, and insert the Z-bend into the control horn on each surface, then run the pushrod through the servo arm holder, and tighten the set screw with the small hex wrench.

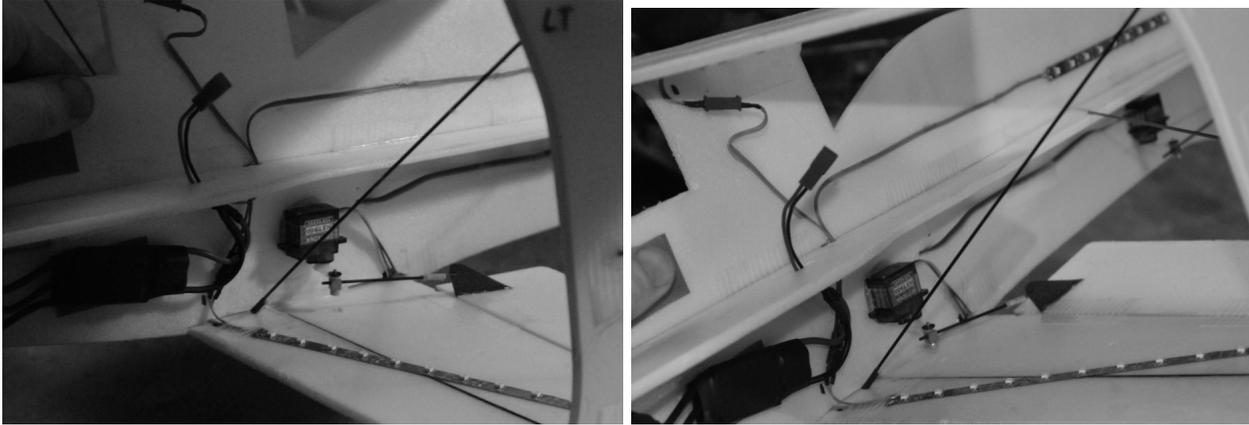


Aileron pushrods. These rods are short and have Z-bends at one end. Set the aileron servo arms to 90 deg positions, and attach the ailerons pushrods the same as the elevator and rudder pushrods, tightening the set screws through the small holes in the bottom wings.



Final steps:

Run the battery cable through the hole in the left side section so the battery can be attached to the Velcro on the top left side and plugged into the batter cable. Attach the top and bottom wing LED connectors to the fuselage LED power cables. Install the prop.



The CG is marked on the top center section wing strut. Move the battery forward/aft to get the CG just right. With the CG to the front, normal flight is easy. If you move the CG back, the plane will hover more easily, but normal flight will get harder.

