

Light RC Glitch Instructions

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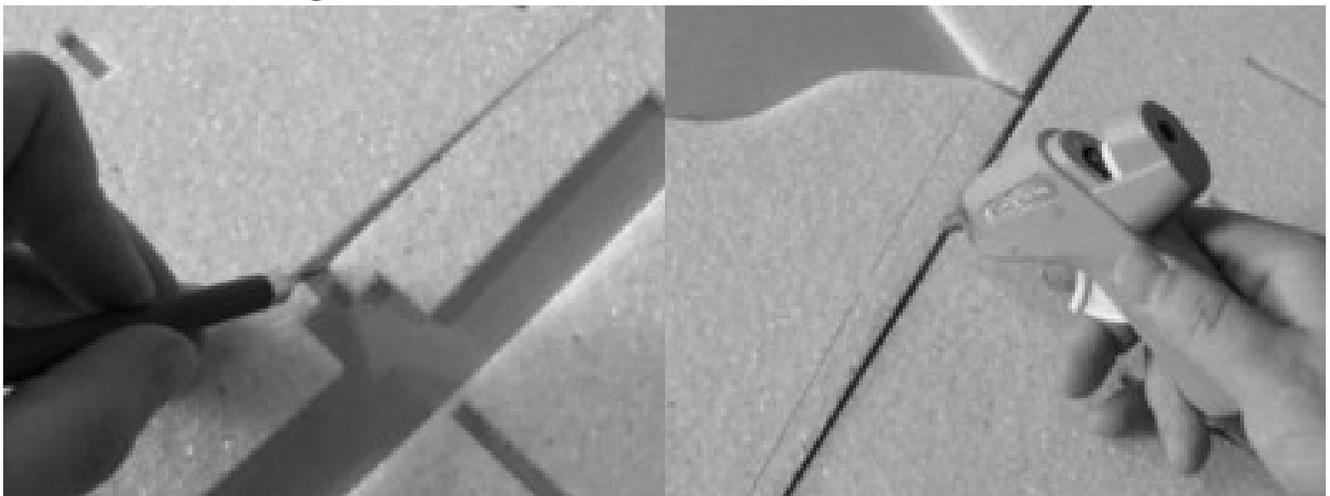
Hinge elevons and rudder

Cut a bevel for hinging, generally a single bevel on both sides of the hinge works best with EPP. Use glue(welders) to create a hinge by applying it to both surfaces and (read welders instructions) touching the hinge line together. Another method is to tape the cut side of the panels together establishing a good fit between panels. Then run a bead of glue over the hinge line and flatten with a Popsicle stick.



Glue carbon onto outer edges

Cut a stick of 6mm flat in half for your wing edges. The carbon should align to your wings aft edge (where the elevons hinge), leaving some of the nose area exposed. Hang tape strips(4-5) off one side of the plane body and lay the strips onto them. Now run a bead of glue onto the carbon, then fold the carbon on to the edge of the foam, taping around the carbon on to the other surface of the wing.



Glue carbon in body

Cut 3mm flats for the tail and mid sections of the wing. Glue these in using CA, hot glue(low temp), or welders.



Glue carbon into vertical stab

Cut a piece of 3mm carbon that runs through the slot in the vertical stab long enough to end at the mid spar behind the motor mount.

Glue vertical stab to body

Slide the vertical stab into place, fitting the notch into the wing from the top side.

Glue foam motor pads

Now glue(welders, CA) the motor pads on the wing, aligning the forward edge with the notch for the motor(not the notch for the motor shaft). Center these as well as you can.

Glue plastic tubes to foam

Mount the tubes to your motor and test fit the motor onto the plane. Leave the tubes about 1mm loose from the motor. If you are using a motor with a square 28mm mount it should fit well. If not then add, or remove foam as needed. The wing cutout for the motor/prop area is included in case you need more foam. When satisfactory fit is achieved attach the prop to the motor(easier outside the plane). Now using hot glue(low temp) glue the

plastic tubes onto the plane, no motor/prop angle is desired. Most installations should allow the user to leave the motor on for this step. Try to keep the 1mm gap between the motor and tube(allow thrust changes if needed).

Glue body verticals to body

Slide the outer vertical into the prop cutout, over the wing and into place. The “taller” side should go down to keep your electronics protected. Fit one side of the tabs into the notches and put a small tab of hot glue(low temp) onto the tab and quickly push the other tab in to the notch. This should hold the part together and allow one to thoroughly align the part to the wing before gluing. Use a straight edge and square align the verticals and glue (hot glue, low temp or CA)

Glue in control horns

Glue in control horns using hot glue (low temp) or CA

Attach electronics

Attach electronics using hot glue(low temp) or velcro.

Cut/build control rods

Power up your electronics(one motor wire disconnected), center the servos, install servo arms. Then build and install your control rods. Use self adhesive shrink tube to attach z-bends. While setting the heat shrink near foam use a razor, or other metal sheet to protect the foam from heat. Reattach the motor wire, check servo and motor travel directions.

CG should be 1.75”~2” behind the mid-spar, or ~8.50” aft of the nose.

Be safe, have fun!

Parts Included:

- (1) 2mm carbon tube
- (1) 6x1mm carbon strip
- (2) 3x1mm carbon strip
- (1) 6" z-bend wire
- (1) 4" adhesive shrink wrap
- (1) laser cut foam plane
- (1) 4" PE mount tubing
- (4) SS motor mount screws
- (1) Printed instructions

Suggested Parts:

This design can be adapted to a wide range of products. The suggested parts should balance out well with the directions described above. If choosing a heavier motor, mounting the battery aft may be needed. If targeting the lighter end of the spectrum, battery will likely be located directly behind the motor, and need to be weighty to help balance, as well as mounting the servos as far forward as possible. Also be warned that a tail mounted streamer will affect balance. Expect a target weight of around 6oz.

9 gram servos (3)

750 mAh+ battery

24+ gram motor (1600Kv+ on 3S)

Design accommodates the pancake type motors(20-22mm), if using an extended mount or stick mount style some alterations will be needed. The mid-spar is directly behind the motor, so longer motors will require the prop plane to move forward, this leads to smaller prop diameters(higher Kv, higher wattage, less thrust).

Around 140W power system do very well, allow for reasonable speed and thrust. While more powerful systems are fun, be aware that you can washout the effectiveness of the elevons. If you have trouble with this, mixing rudder with ailerons can help tremendously. This mixing is not desirable if you are trying to hover, or do other 3D maneuvers.

