



Convair Delta Dart F 102A

OLD GUY RC
F-102A Elevator/Aileron Control
30mm EDF, 6A ESC, 2S 180 mah Lipo
50 grams thrust
16.5" span .72 sqft
2.5 oz all up weight
3.5 oz/sf wing loading

Instructions

Cut out all parts cutting through middle of dark lines
Peel paper backing off both sides to lighten model
Use a dull pencil to bed down a groove where skewer will go between nose halves.
Test fit nose halves and then run a bead of glue in the trough, press skewer in and then close halves
Put pressure on halves while glue dries, especially edges.
Tape wing halves together and then run a bead of glue at joint, holding the halves together on a flat surface.
Carefully align nose onto wing making sure it is straight
Run some glue at joint and hold straight.
Curl the air intake with a 1" rod on a cushion until it will roll up and join fuselage and slide onto wing. Glue bottom first, then at wing and then along fuselage.
Curl form main upper fuselage piece. Test fit on wing along a line you draw from front to back on wing.
Glue one side of fuselage to wing and when dry, complete the roll over to the other side lining up with the line you drew. Glue to air intake, nose and wing to complete upper fuselage.
Draw lines from front to back on underside of wing where the lower fuselage pieces will go.
Glue these in place making sure they are straight.
Draw lines on the underside of wings where the fuel tanks will glue.
Use the paper patterns for placement and transfer lines with a few indents through to foam. Glue on fuel tanks, Mairilys at rear fuselage above wing.
Test fit the vertical fin and verify it is in the middle and straight (any offset will give trim problems)
Bend lower duct cover over a counter edge to conform to lower fuselage. Tape temporarily until all controls are installed.
Glue on small stabilizers to fin both sides making sure they are parallel to the fuselage.

The test model balanced empty without any weight added. Adjust your model until the glide empty is flat and floating with no tendency to stall.
Mark the CG
Now set in the RC components and verify the CG is still where you marked it.
The 30mm EDF should be set in a notch you cut right in front of the duct cover.
Servos can mount through the lower fuselage sides receiver, and ESC can be double sided taped in. Scotch tape wiring, and run above wing and back down to keep it tidy.
You can make a slide in tight fit spot for the battery with scrap foamboard.
Keeping the RC electronics as close to the CG as possible helps with stability.

The Convair Delta Dart is an interesting model. You want an absolutely flat wing instead of any airfoil. It flies on a cushion of air and will climb or descend with inputs from elevator and aileron.

You can round edges of wing and fin slightly but don't make them too thin.

Save weight by decorating with insignia printed on white paper and leave the model white. Use white glue to apply decals.

Try to use dots of hot melt glue instead of gobs of thick beads and filets You will save as much as an ounce by being careful and the flying will be your reward.
Light models fly better, don't crash hard, aren't as susceptible to warps or misalignments, fly slower and fly longer on a battery charge.

The model will weigh 25 grams empty if built light.

