

Giant Scale Planes.com

AT-6



Specifications

Wingspan: 103 inches

Length: 69 inches

Wing Area: 1327 sq. in.

Wing Loading: 45 – 48 oz. / sq.ft

Flying Weight: 26 – 28 pounds

Engine Size: 60 – 70 cc

Radio: 5 channel w/ 8 servos (6 heavy duty 2 standard)

Cowl info: Diameter 11 inches, Depth 6 inches

Spinner: 3 inch At-6 style hub

Wheels: 5 inch x 2 & 1 ¾ x 1

Wing



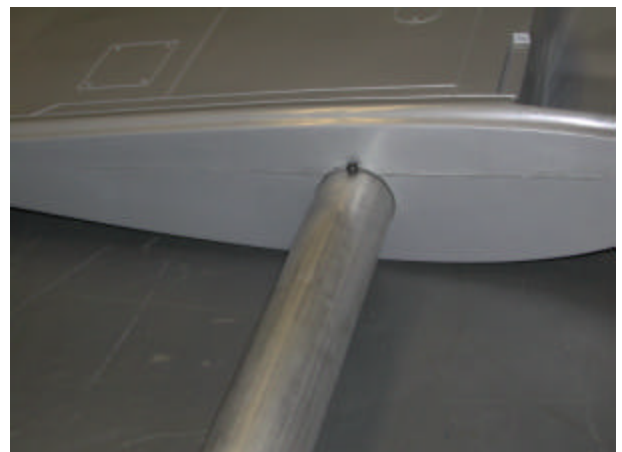
Construction of the wing begins with the hinging of the ailerons. We recommend the larger hinge points for all surfaces. Install four hinges in each aileron. Be very careful to center the aileron to avoid any binding or drag.



On the underside of each wing panel, remove the covering for the servos. Cut the covering $\frac{1}{4}$ inch inside the edge of the servo opening on all four sides. Reseal the covering to the inside edge of the servo pocket.



The wing servos are installed using heavy-duty hardware (4-40) rod and clevis. Rocket City # 6 hardware works very well for this step. Drill and tap the aileron at the hard point, one inch deep for a # 6-32 screw. After threads are done, use a drop of thin C/A to harden the threads. Measure the length of the 4-40 rod adjusting for the neutral center position. Solder a 4/40 clevis at the servo end. We also recommend H/D servo arms. Use same procedure on all surfaces.



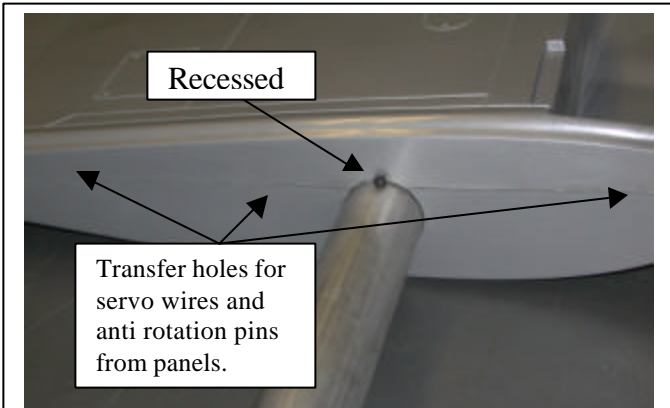
This is a very important step. This step will hold the wing tube in the proper place for installing the wing bolts. With the tube placed in the center section, adjust so that you have equal amounts of the tube on each side of the center section. Approximately $11 \frac{5}{8}$ inches. Mark the location on one side. Slide the tube back some and drill and tap a hole for a 6-32 socket head bolt. Screw the bolt in and glue with a drop of thin C/A.



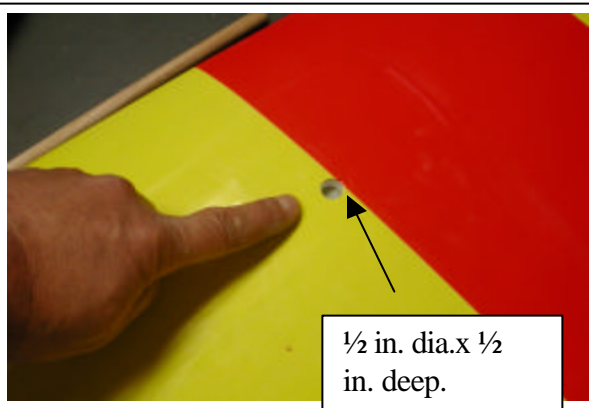
11 5/8 inches from the end of the tube. Drill and tapped hole.



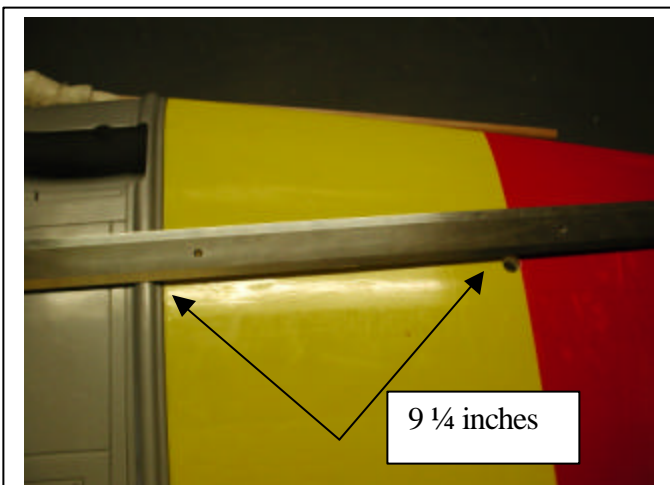
Using a dremmel tool, notch a hole 1/8 inch deep in the underside of the wing on one side. This will allow the bolt head to lock in place. Make sure that this a tight fit.



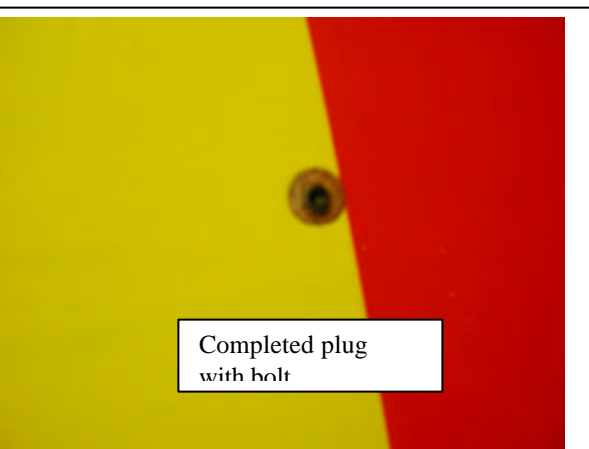
Completed tube installation. This is done to ensure that the tube will not rotate in the wing.



Hard points for the wing bolts are installed on the under side of the wing panels.



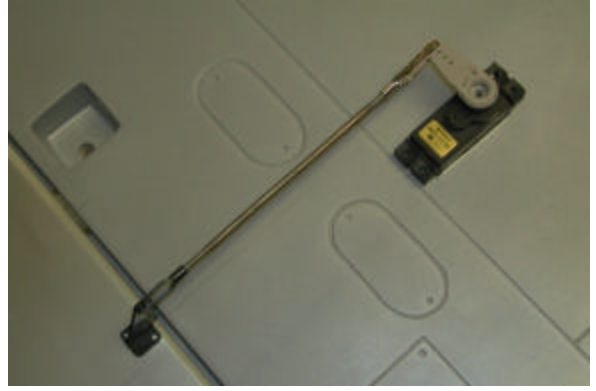
Mark the center of the wing tube on each side of the under side of the center section. Using a straight edge, transfer these points out to edge of the red and yellow boarder 9 1/4 inches on both panels.



With the aluminum anti rotation in place, epoxy the 1/2 in. dowel plugs in place. When cured, drill a 1 in. hole 1 1/4 inch deep in the center of the plug. This will allow the drill to penetrate the tube. Now tap the hole with a 6-32 tap. Install a 1-1/4 inch 6-32 socket head



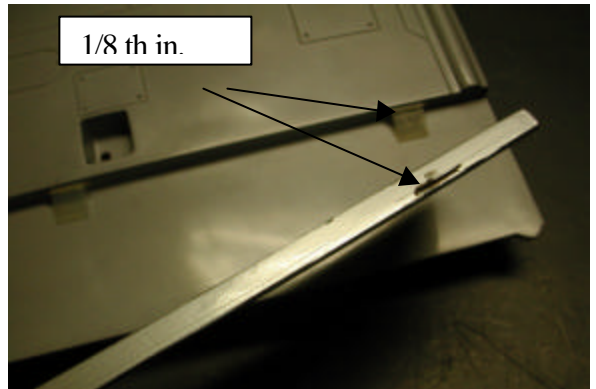
In the top center section of the wing, cut a square hole 3 x 3 in. 2 ¼ in. forward of the back edge of the pocket. Hole can be left or right of the center rib. Cut a piece of 1/8-lite ply to match your servo. This will support the servo on the bottom of the wing. Epoxy the ply plate in place.



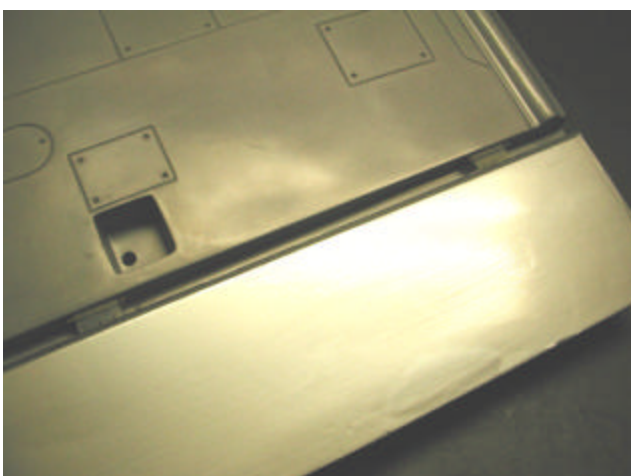
Cut the hole in the bottom of the wing center section so it will be centered in the plywood support plate.



The flap is installed using 4 Dubro pin hinges. The hinge line is 1/8 inch below the ridge of the center section



Install hinges 1/8-inch below the bottom of the flap. Remember this is on the bottom of the center section.



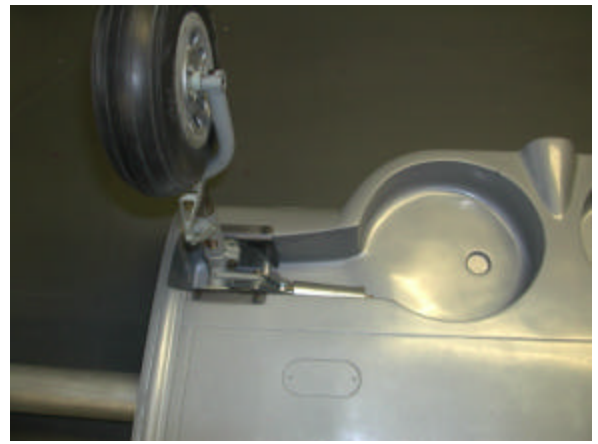
Completed hinged flap.



Trial fit the landing gear into the pockets in the bottom of the center section.



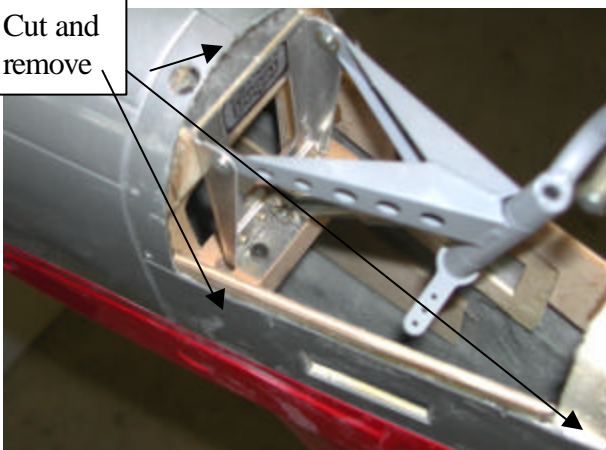
Temporarily attach the wheel to the retract and center it in the well. Making sure that it will not bind, fasten the retract in place with screws. Check and recheck the movement.



Drill a hole in the wheel well for the air-lines. Location of the air lines should not interfere with the wheel or retract.

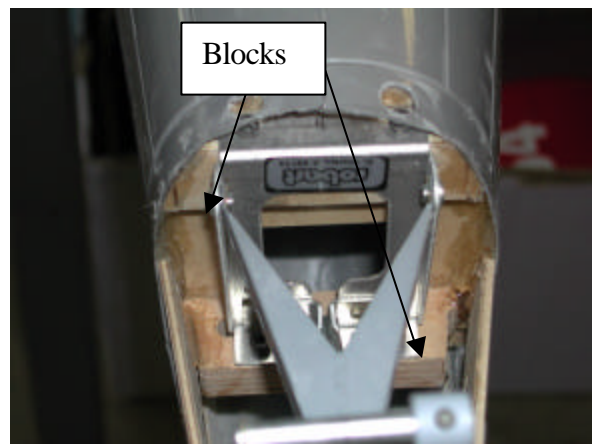
Fuselage

Cut and remove



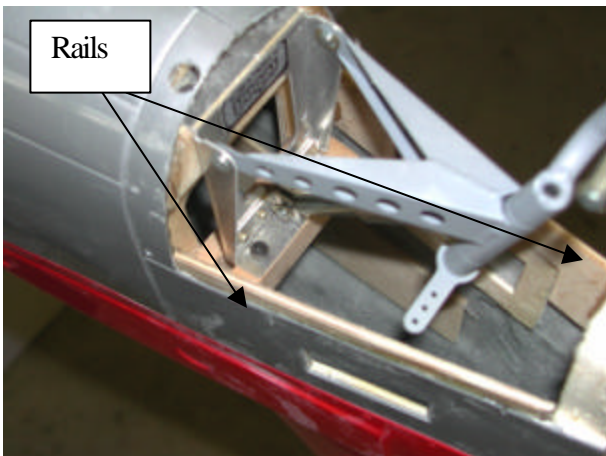
At the lower rear of the fuselage you will see the panel lines for the tail wheel. Using a dremmel too with a cutting wheel remove this portion.

Blocks



Install hardwood blocks on tail wheel bracket and then epoxy in place to the former. Tail wheel steering is done by a pull-pull system.

Rails

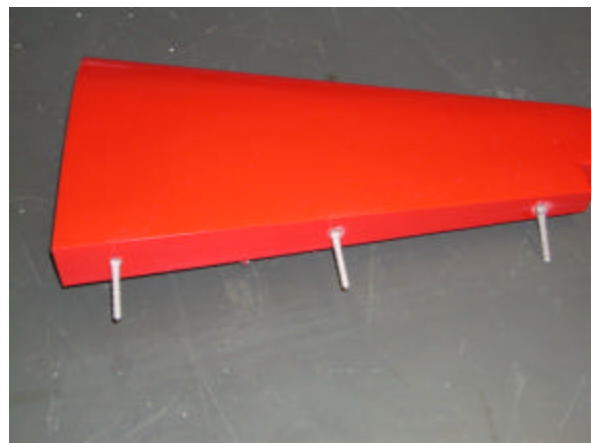


After the tail wheel assembly is installed. Make up two 1/8-ply rails. 1/2 in. by 4 1/2 inches long. Epoxy in place allowing 1/4 inch to show above the fiberglass cut. This will allow for screws to reattach the cover.



These are the tools for the proper installation of the hinges in the elevators, rudder and ailerons.

To install the point hinges, find the center of the stab trailing edge. Measure distance from root to tip. Divide in half. This will be point for center hinge. Use the Robart tool and drill a 3/16ths hole. Measure in one inch from each end point and drill two more holes. Using a dremmel tool recess the hole 1/8 inch. This will allow the hinge to fit tighter in the pocket. Follow the same procedure on all surfaces. Before gluing, coat the hinge swivel point with some Vaseline.



Remove covering for the servo and check the pocket for clearance for the servo wife.



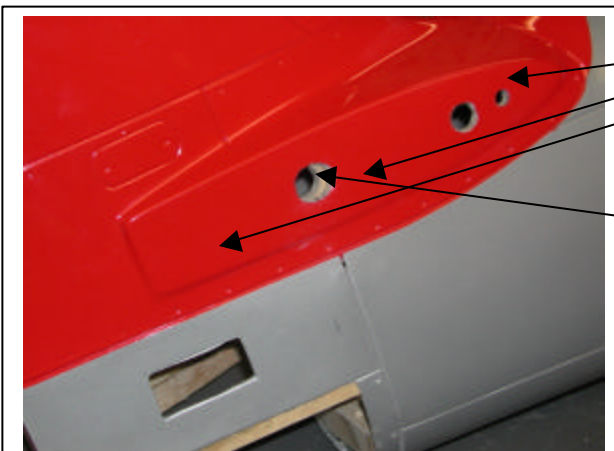
Completed stab half with servo installed



Completed stab half with elevator linkage.



Epoxy the anti rotation pin and epoxy the stab tube into only one half of the stab at this time. We will glue the other half in later.



Sand this area with 80-grit paper to ensure bonding with epoxy.

On the inside of the fuse you will glue the plywood tube supports after the stab is glued into place. Be sure to check that both sides are the same incidence.

Drill and open the holes for the stab tube, anti rotation pin and servo wire on each side of the fuse. Also note the rudder servo opening.



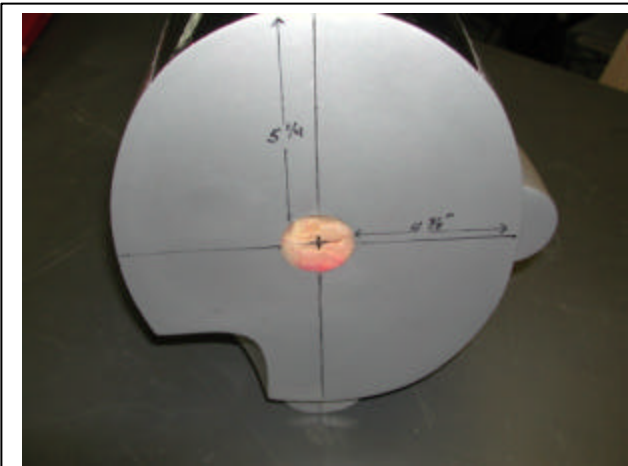
The rudder is install using four hinges. The procedure is much the same as used for the ailerons and elevators.



Place the wing center section on the fuse to check the alignment and the fit of the saddle.



Turn the fuselage with the center section over and you will notice the locations of the four wing bolts. After you double check the alignment again and again, you can drill the holes for the wing bolts.



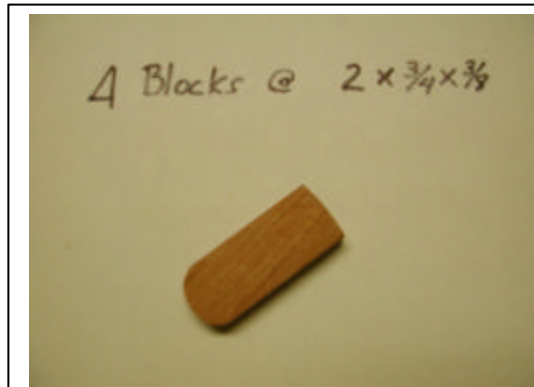
Find the center of the firewall and mark it. This will be the centerline for your engine. Depending on the engine used, you may have to add a spacer block.

The cowl can be mounted in a few different ways.

1st Use four hard wood block spaced at 90 degrees apart.

2nd Use four 1 inch x 3/8 inch metal brackets.

3rd To make a cowl ring and with tabs and mount to fire wall .



Install the engine and fuel tank according to the manufactures instructions.

Install the radio to manufactures instructions.

The canopy can be screwed or glued in place with canopy glue.

When the model is completed, check the C/G. The location of the C/G is 5 ½ to 6 inches from the leading edge of the wing at the fuselage.



Center of gravity
location. 5 ½ to 6 in.