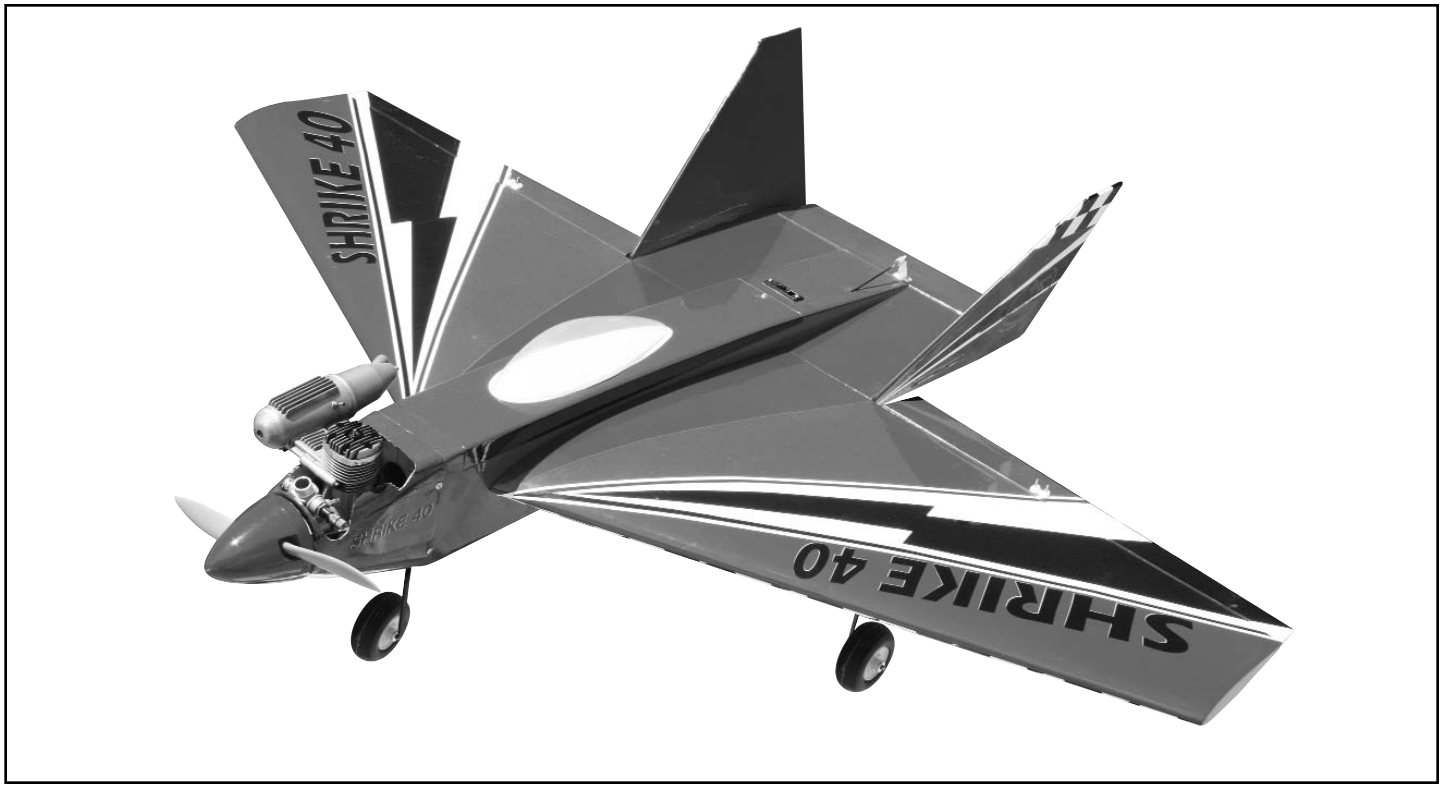
Shrike 40

Almost Ready to Fly



Important Information:

Please inspect the plane before beginning to assemble to make sure you are happy with it. After assembly has begun you cannot return the kit. If you find a problem before beginning to assemble the plane you must contact us, please do not return it to the dealer. Due to temperature changes the plane may develop some wrinkles in the covering that you will need to remove with an iron. Be sure to seal the edges down first so that you do not cause the covering to shrink and leave exposed areas of wood. The model is built light to ensure good flight characteristics. With the power available from the new breed of engines, it is necessary to use throttle management in order not to overstress the airframe. You must maintain good tight control linkage with no slop, good servos with plenty of power, and good servo arms to protect against flutter. Sloppy linkage and overspeeding the plane will cause flutter which is not covered in the warranty. Lanier R/C is proud of the care and attention that goes into the manufacture of parts for its model kits. The company warrants that for a period of 90 days, it will replace, at the buyers request, any parts

or material shown to the company's satisfaction to have been defective in workmanship or material at the time of purchase.

No other warranty of any kind, expressed or implied, is made with respect to the merchandise sold by the company. The buyer acknowledges and understands that he is purchasing only a component kit from which the buyer will himself construct a finished flying model airplane. The company is neither the manufacturer of such a flying model airplane, nor a seller of it. The buyer hereby assumes the risk and all liability for personal or property damage or injury arising out of the buyers use of the components or the finished flying model airplane, whenever any such damage or injury shall occur.

Any action brought forth against the company, based on the breach of the contract of sale to the buyer, or on any alleged warranty there under, must be brought within 1year of the date of such sale, or there after be barred. This one year limitation is imposed by agreement of the parties as permitted by the laws of the state of Georgia.

Introduction

Thank you for purchasing the Lanier R/C Shrike 40. We are sure you will be happy with the quality of the kit and just as happy with the flying characteristics of the Shrike 40 Fast, responsive, and jet-like-the Shrike 40 is just plain fun.

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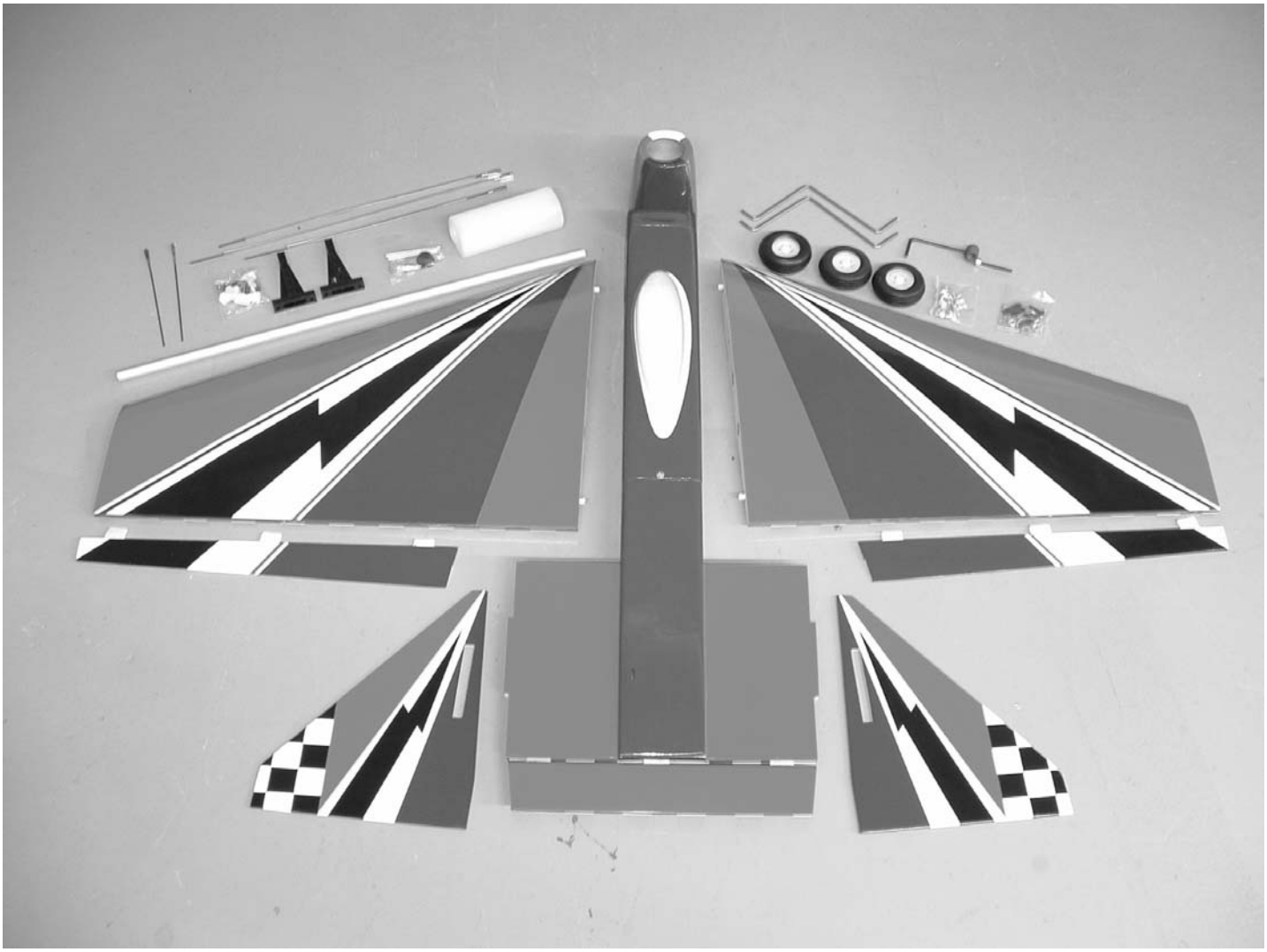

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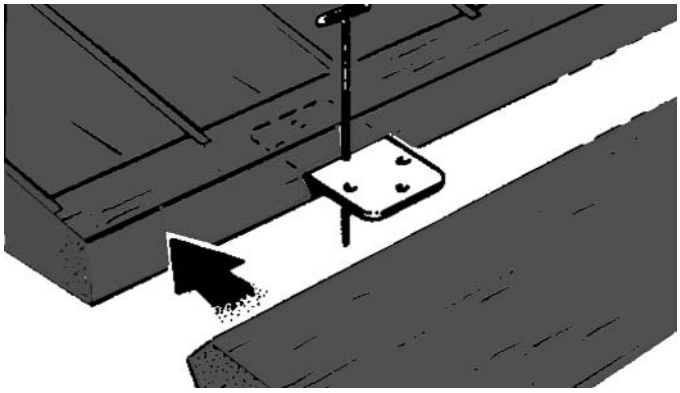
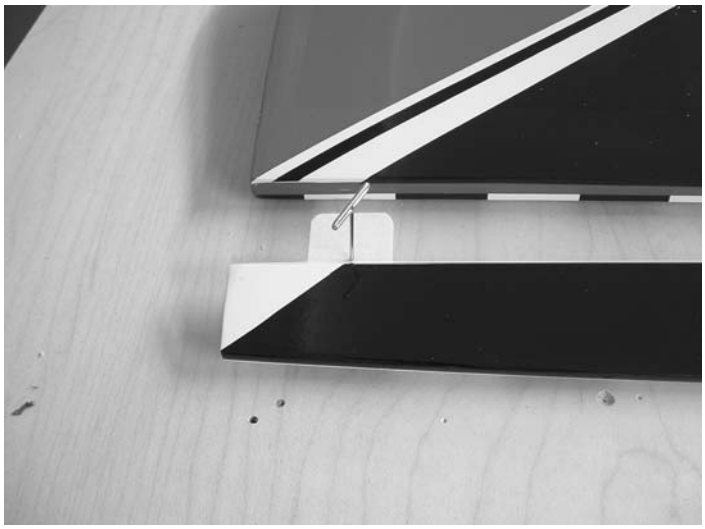
Wing Construction

Begin construction by gluing the aileron hinges in place.

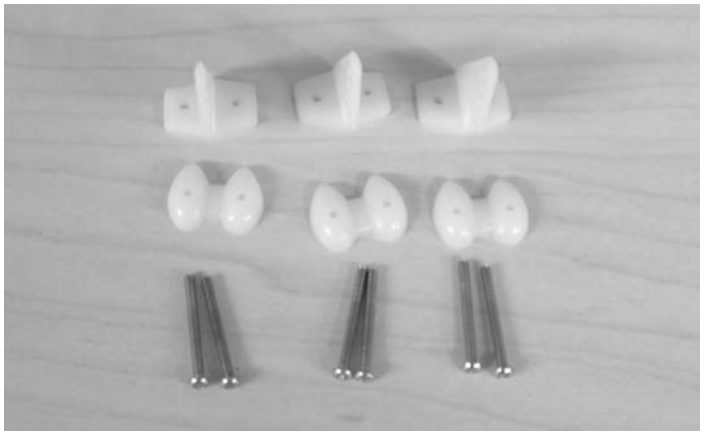


Remove the aileron from the wing and use a straight pine to locate the hinges. Insert a pin in the middle of all the hinges and install in the wing up to the pin. Slide the aileron in place and align with the tip of the wing. Push the aileron all the way up against the pin. When the aileron is in place, remove the pins and finish pushing the aileron flush against the trailing edge.

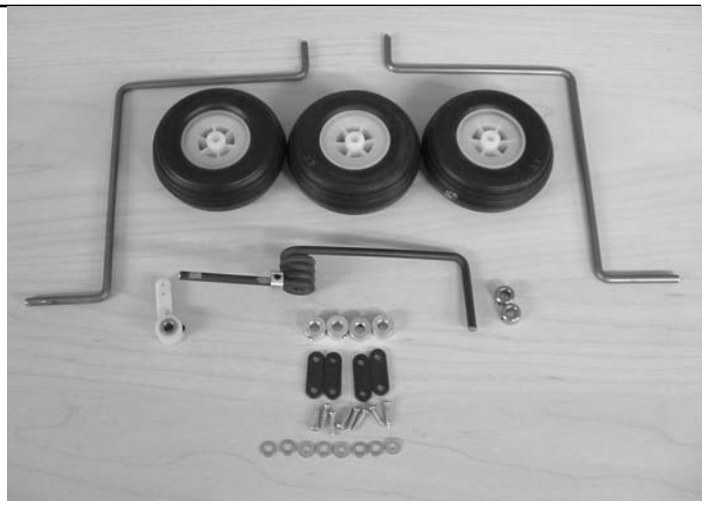


While holding the aileron flush against the trailing edge, deflect to it full travel (3/4" at the tip) and apply one drop of Zap thin CA. Repeat for the other hinges. Turn the wing over and apply one drop to each hinge from the bottom side. Repeat the gluing on each hinge for a total of two drops on each hinge

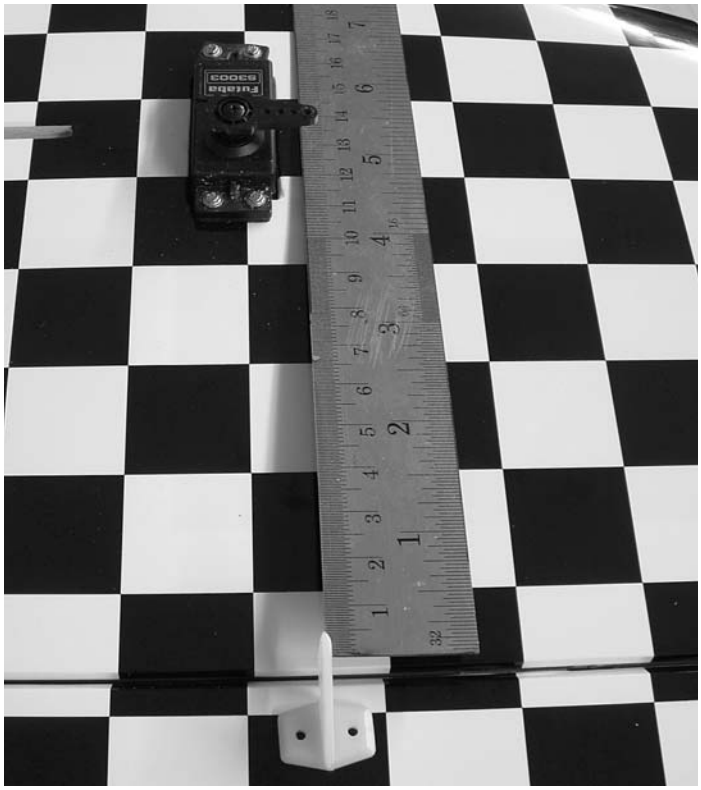
Mount the aileron servos with the output arm turned to the rear. If your servo wire is shorter than 12" you will need an extension.



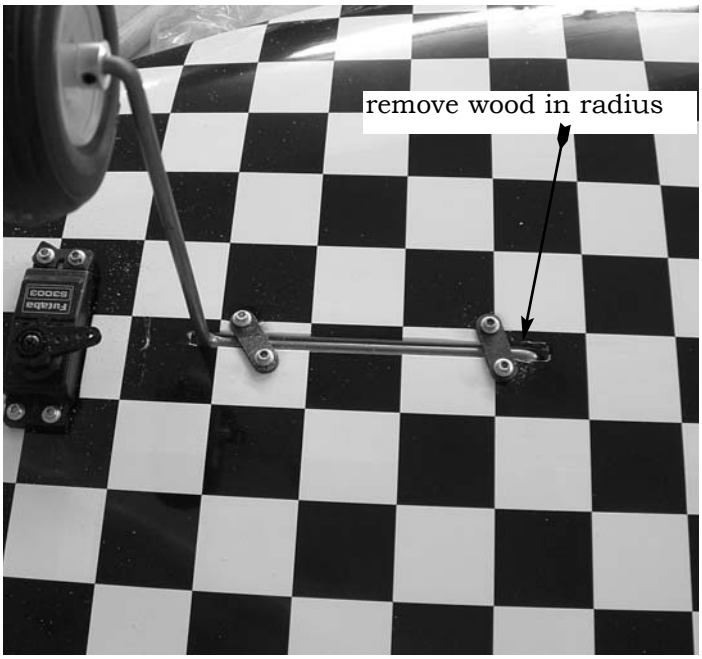
Locate the three control horns, three control horn plates and six #2x3/4" screws.



Locate the landing gear and hardware.



Use a straight edge to align the control horn with the output arm of the servo. Install the control horn so the holes for the clevis are aligned over the hinge line. Mark the location of the two holes for the control horn and drill two 3/32" holes. Install the control horn using the #2 screws through the horn and into the plate on top of the aileron.



Install the landing gear wire into the slot on bottom of wing. Use a razor blade or X-Acto knife to remove the covering. You may need to remove a little wood in the radius where the leg goes into the wing so the wire will fit flush with the wing.

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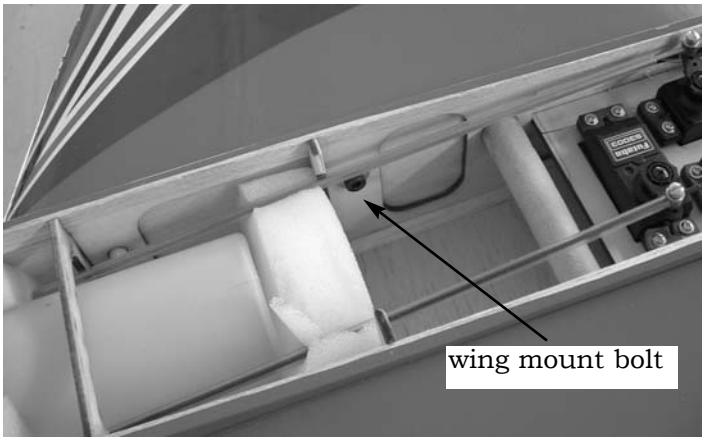
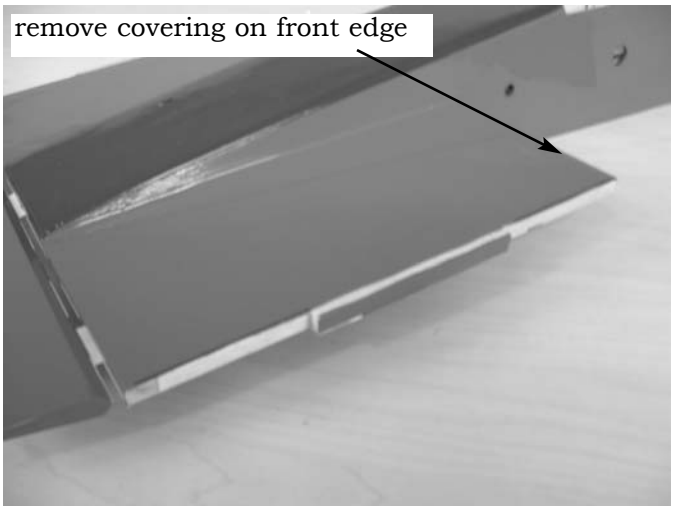
Lay the retainer plates over the landing gear wire at an angle so the holes will fall 1/4" from the center of the wire. Drill a 1/16" hole at the location and install the screws. Install a wheel collar then the wheel and another wheel collar on the gear wire. The wing is now ready to mount to the fuselage.The wing mounts on the fuselage with an aluminum tube and is held in place by two 4mm x 20mm bolts and washers.



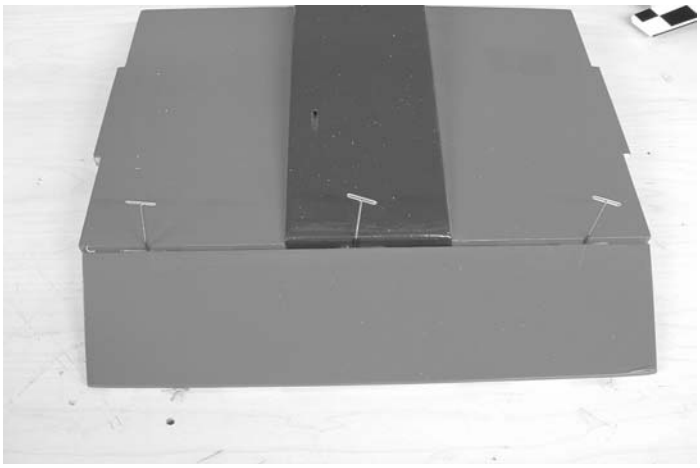
Install the wing on the fuselage and mark around the outside with a marker.

Use a razor blade or X-Acto knife to remove the covering. Cut about 1/8" inside the line and be careful not to cut into the wood, only the covering. Remover the covering. Also remove the covering where the stab and wing join, just on the edges where the two surfaces mate. Mix some 30 minute epoxy and spread on the bare wood. Install the wing on the aluminum tube and hold in place with the mounting bolts.

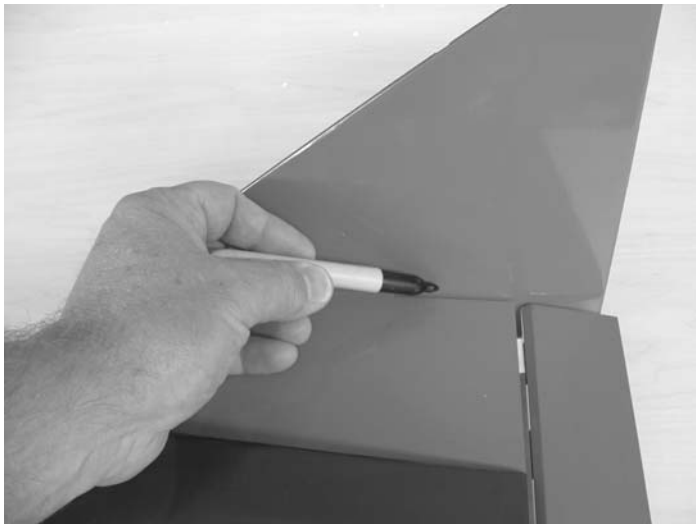


Fuselage Construction

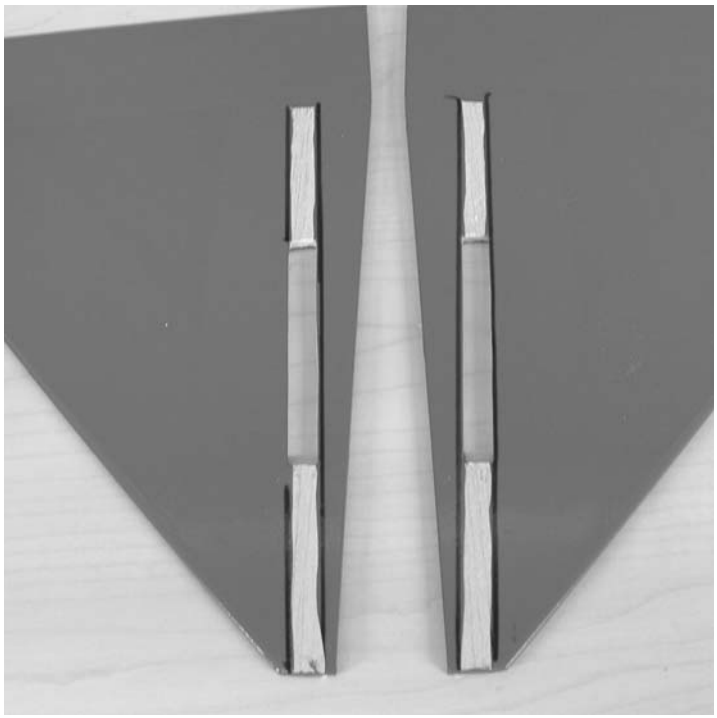
Begin construction by installing the elevator.



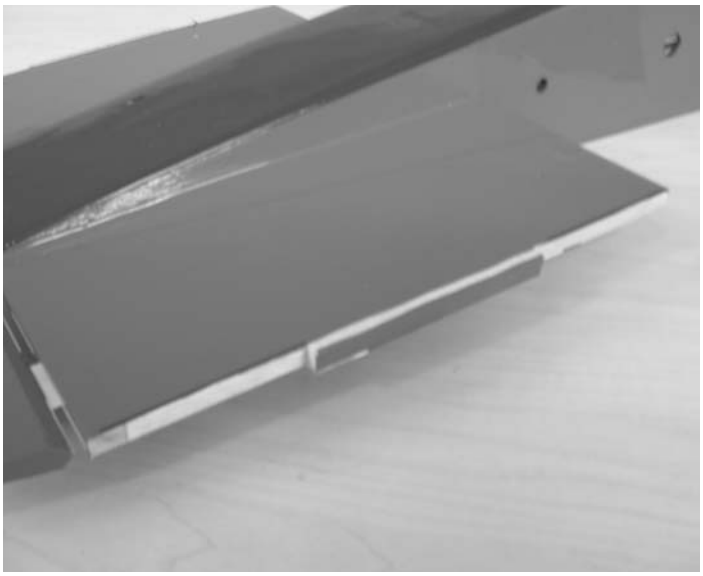
Install the elevator and hinges as you did with the ailerons using the straight pins and thin CA glue. The elevator should deflect 1-1/4" both directions.



Fit the fins in place in the notch provided. Mark the outline both top and bottom.

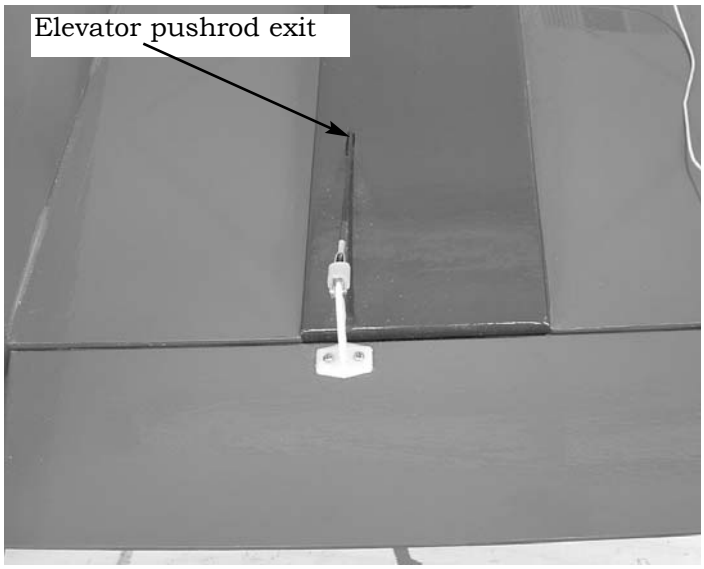


Remove the covering inside the lines you just marked being careful not to cut the wood. Cut about 1/16" inside the line so no wood will show when the fin is installed.

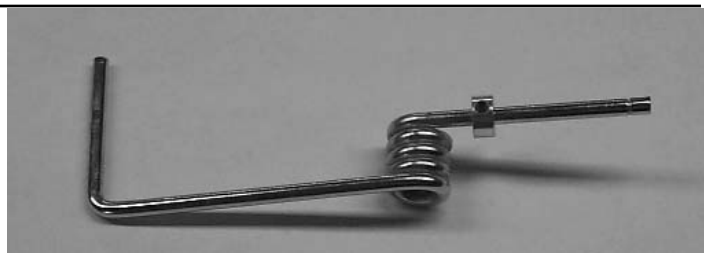


Remove the covering on the ends of the stab where the fins mount. Do not remover the covering from the tab area as it will show on the outside of the fin.

Mix some 30 minute epoxy and apply to the bare wood surfaces. Pin the fin in place while the epoxy cures. The fin is at a 10 degree angle which is pre cut into the stab.



Locate the elevator pushrod exit in the fuselage on the left side. Remove the covering and install
the 2-56 pushrod and clevis. Install the control horn on the pushrod and sit on the elevator. Align the holes for the clevis over the hinge line and mark the location of the holes in the control horn. Drill two 3/32" holes and install the horn with the two #2 screws into the control horn plate on the bottom side of the elevator.

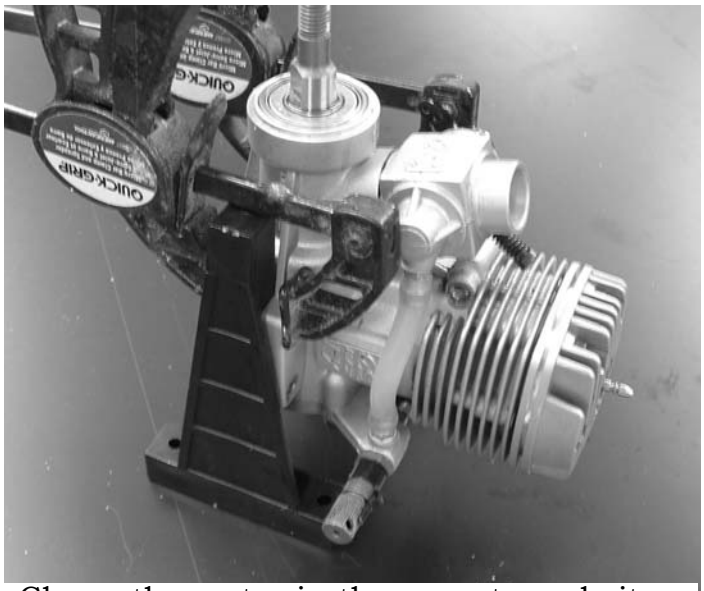


Install one wheel collar on the nose gear strut.

Slide the nose gear wire through the hole in the bottom of the fuselage and into the pre-installed nose gear bearing blocks. Install the tiller arm on the nose gear and mark the location of the set screw. Remove the gear and file a flat spot on the wire where the set screw will sit. The arm can be on either side of the fuselage depending on the motor type you use. You will want the arm on the opposite side from the throttle arm. With most two strokes this will put the arm on the left side of the fuselage. The set screw will be on the firewall side of the tiller arm which will require you to rotate the gear 180 degrees, install the tiller are then rotate back into position. Make sure you have the arm away from the firewall enough to get right turn in the wheel. It does not require much (about 1/4").

Locate the motor mounts and hardware.

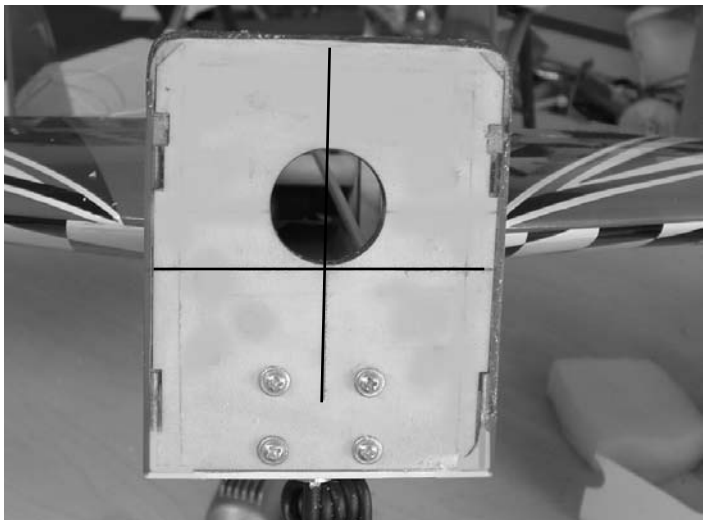
Locate the motor mount bolts.



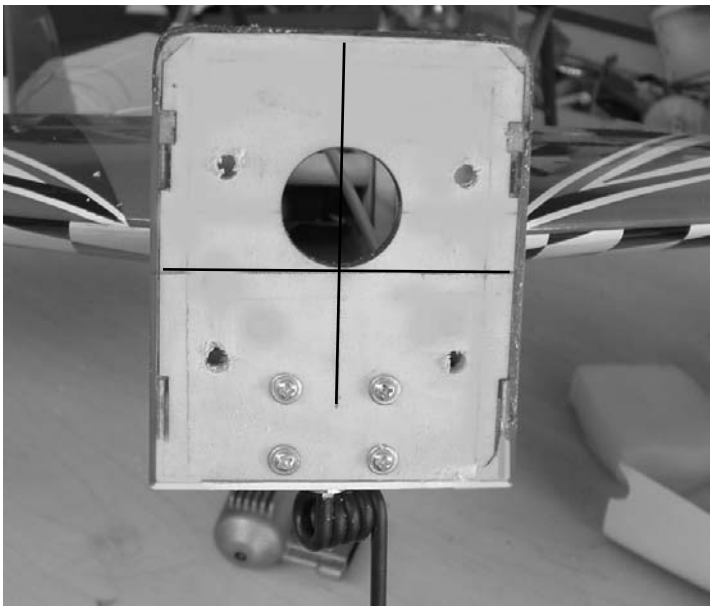
Clamp the motor in the mounts and sit flat on the table. Check the make sure the mounts are sitting flat, and the motor is straight, not pointed left or right.

The cowl is 4-1/4" long and will over-lap the fuselage 1/2". This leaves a length of 3-3/4". Adjust you motor on the mounts so it measures 3-7/8" from the table to the front of the thrust washer, surface where the prop sits. If you are using a spinner that is flush on the back such as the Tru-Turn this will work, if you are using a spinner that is off set such as the Goldberg spinner shown in the instructions you will need to move the engine out more, 4-1/16". If you are using some other spinner make sure you leave 1/8" between the front of the cowl and the spinner back plate.

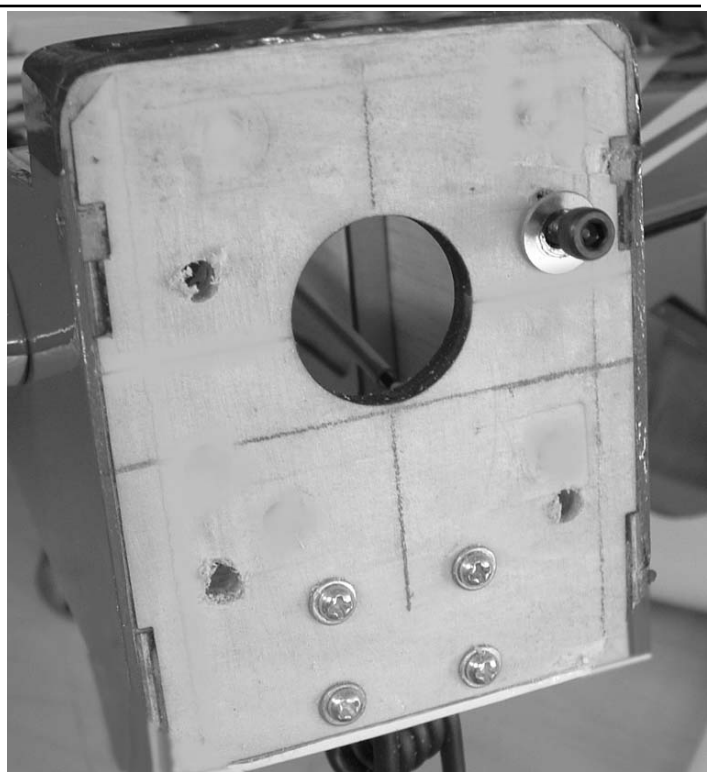
When the engine is at the proper length, mark the location of the holes and drill the mounts.
(1/8" drill) Mount the engine using the supplied hardware.



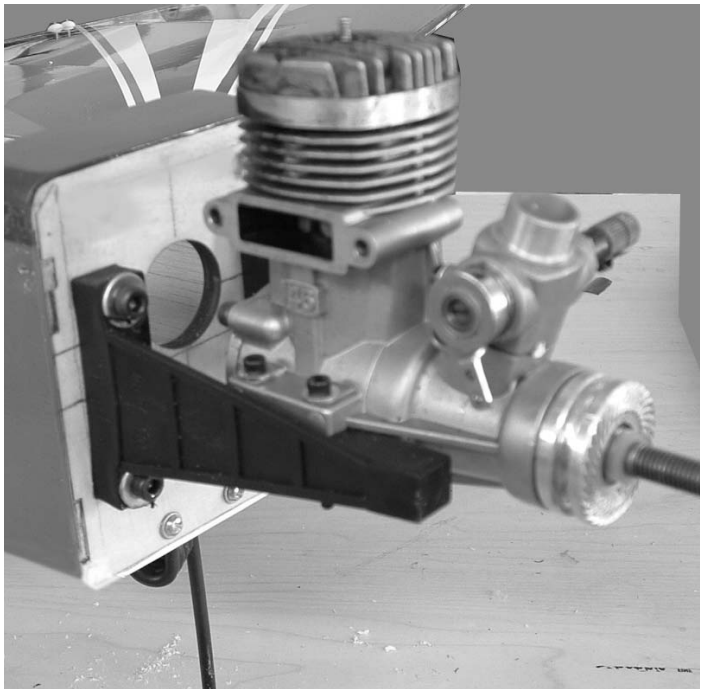
Draw a vertical and horizontal line through the center of the firewall.



Center the motor on these lines and mark the location of the four mounting holes. Drill a 7-32” holes at the four locations.



Use one of the mounting bolts and a washer to seat the blind nuts. Install the bolt through the firewall and into the blind nut. Tighten the bolt to pull the blind nut securely into the firewall.



Bolt the engine in place using Lock-tite on the bolts.

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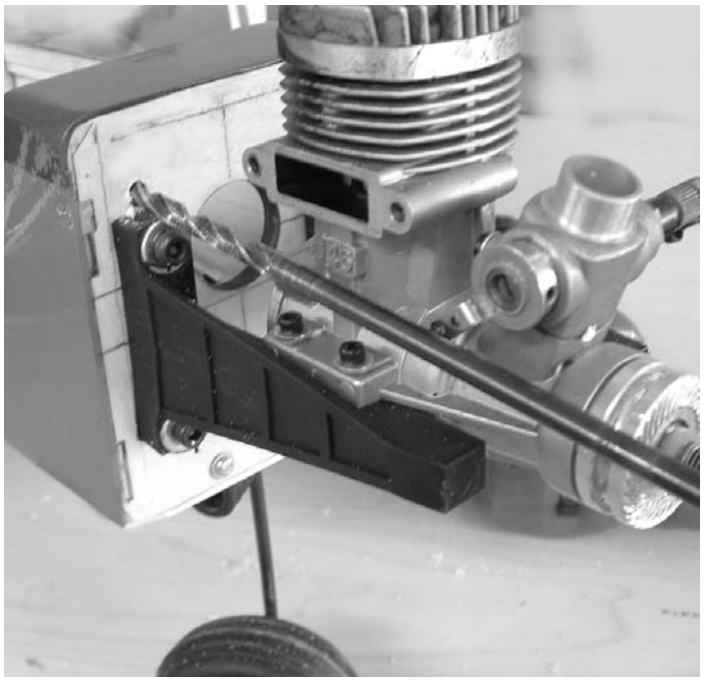
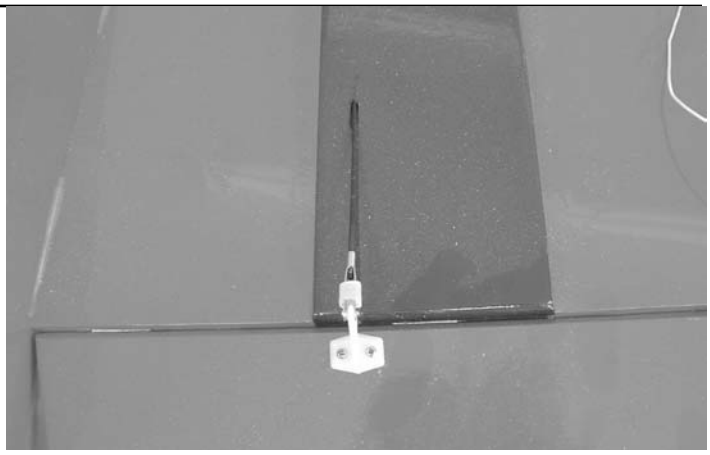


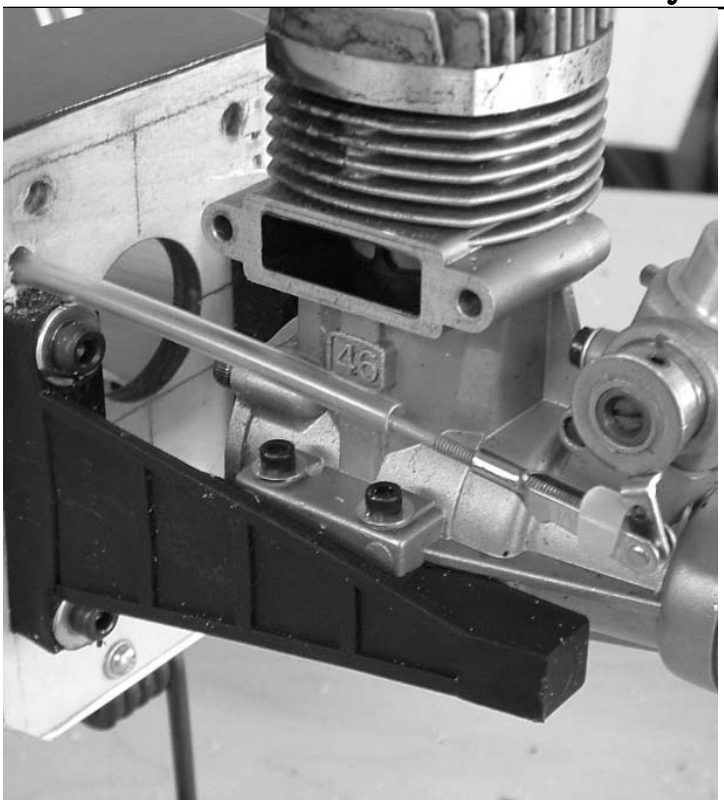
Drill a 3/16” hole in the firewall in line with the throttle arm for the throttle pushrod.



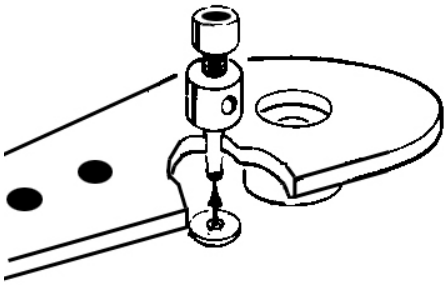
Locate the elevator pushrod, 2-56 clevis, silicone keeper and nylon swing in keeper. Thread the clevis on the pushrod so 1/16” of thread shows on the inside of the clevis. Install the pushrod in the hole in the fuselage and connect the clevis to the elevator horn.

Install the three servos in the fuselage using the hardware supplied with the radio. The nose gear servo goes in front and the throttle servo on the right side of the plane. This could be reversed if the throttle out put for the engine is on the left side(four stroke).

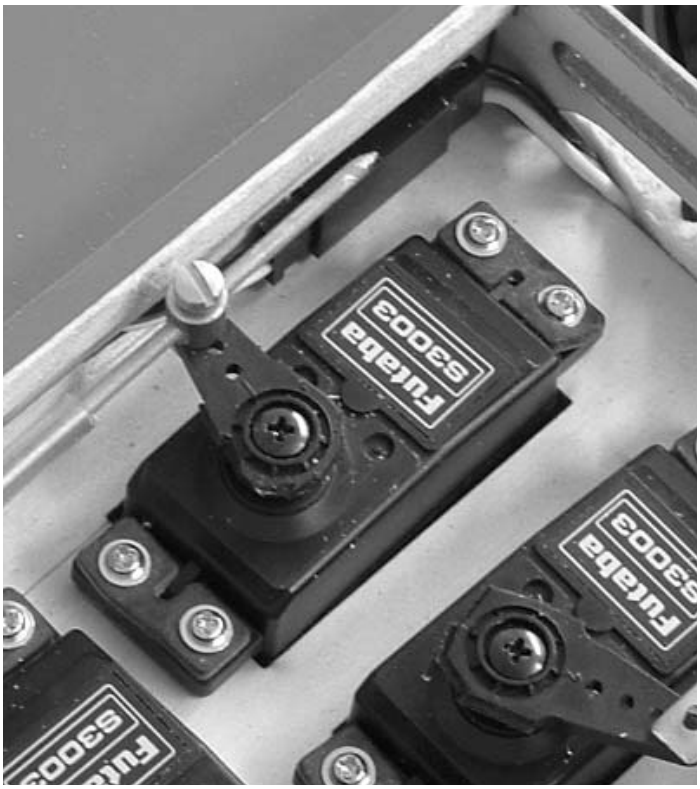
With the servo centered and the elevator centered, mark the pushrod at the output arm and make a 90 degree bend. Cut the pushrod at 3/8” and install in the servo output arm. Retain with the nylon swing in keeper.



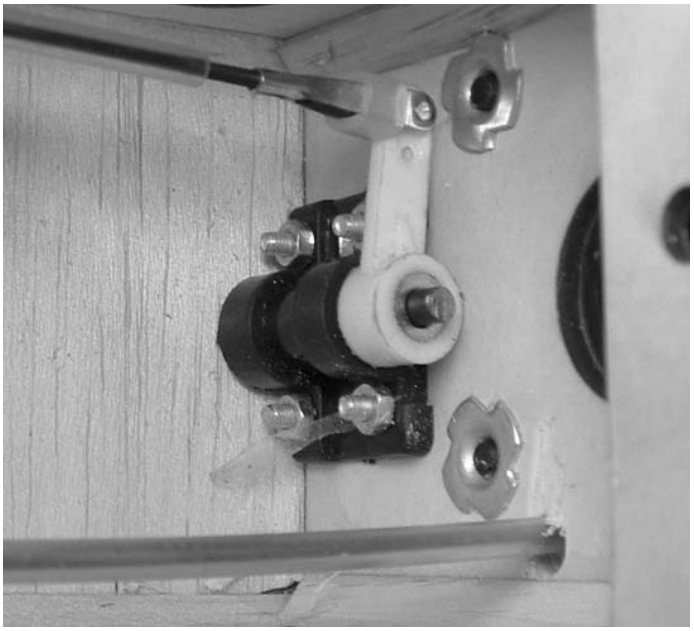
Thread the clevis on the throttle pushrod so 1/16" is inside the clevis and install the silicone keeper. Install the throttle pushrod in the hole you drilled in the fuselage inside the nylon tube. Connect the clevis to the throttle arm.



Install the servo connector in the output arm of the throttle servo as shown in drawing.



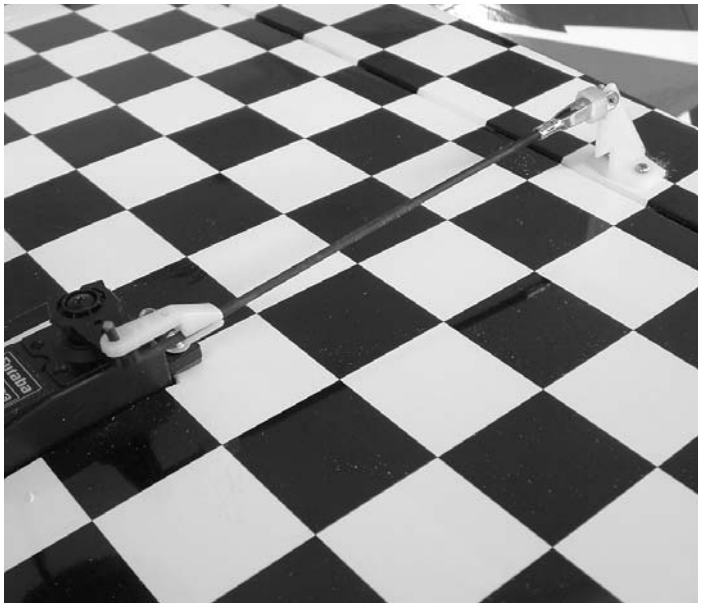
Connect the throttle pushrod to the servo using the pushrod connector.



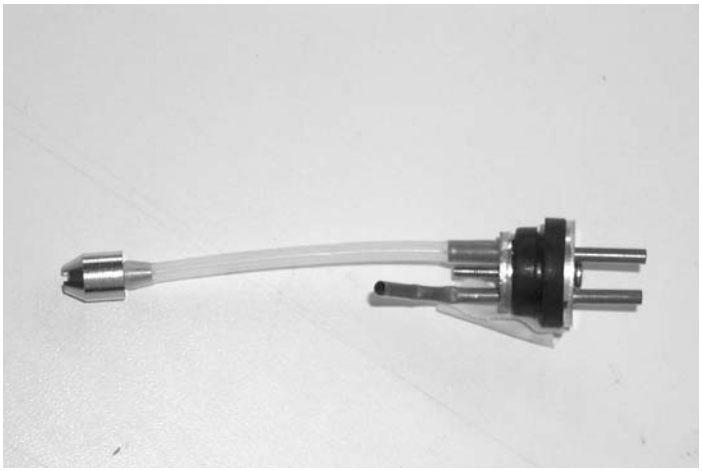
Connect the nose gear pushrod to the tiller arm with the clevis and keeper.

Connect the nose gear pushrod to the servo using another of the pushrod connectors.

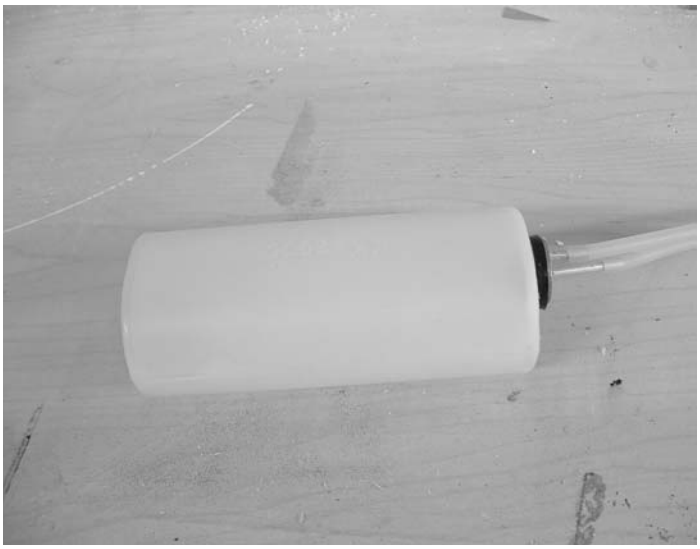
Assemble the cap for the fuel tank as shown. Install one tube and bend at a 45 degree angle and the other straight.

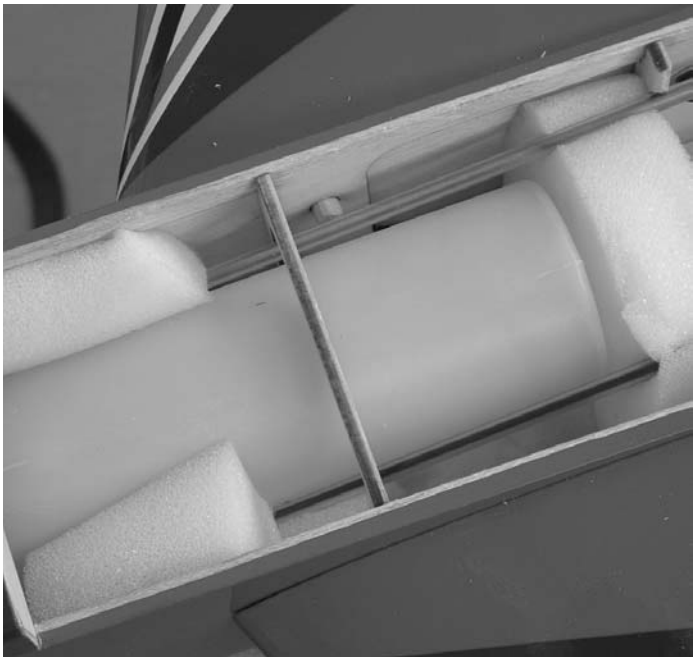


Center the aileron servo and attach the pushrod to the clevis Mark the center of the arm on the pushrod and make a 90 degree bend at the mark. Cut the bend at 3/8" and install the nylon swing in keeper. Repeat for the other aileron.



Install the fuel line on the straight tube and the clunk on the other end. Adjust the length of the tube so the clunk is 1/4" off the bottom of the tank when held vertical.The vent tube should be at the top

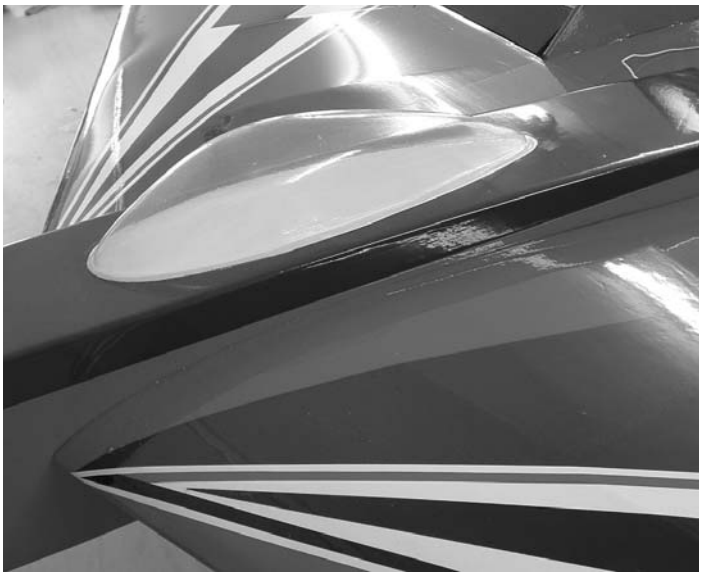




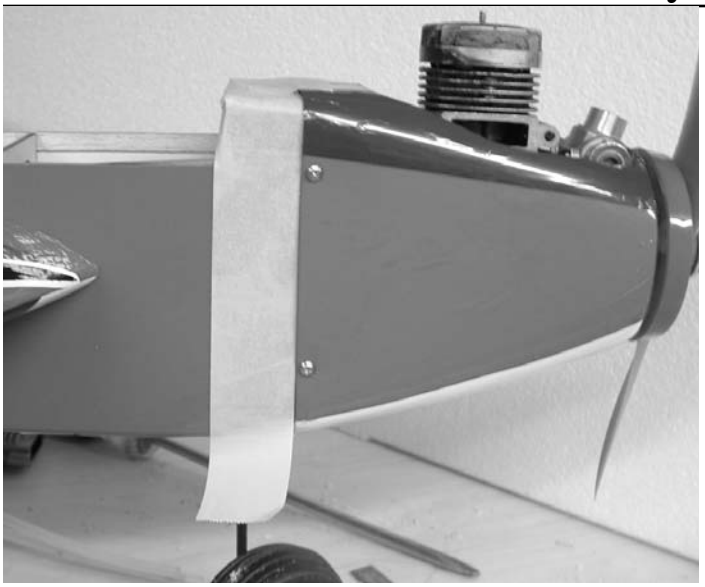
Install the tank in the fuselage with the cap in the hole in the firewall. Use foam (not supplied) to cushion the tank. You will need approximately 5" of fuel line on the vent and the supply line to attach to the engine (not supplied).

Install the receiver just aft of the servos . The battery will probably need to be install in the aft compartment behind the switch.

Install the switch just aft of the hatch opening.



The canopy should be glued in place with the hatch installed and bolted in place so as not to warp the hatch. Fit the hatch in place and install the #2 screw and washer. Glue the canopy in place using Zap canopy glue .



Put a piece of masking tape on the fuselage 1\4" behind the firewall on both sides of the fuselage. Cut the cowl to fit your engine and slide into place overlapping the front of the fuselage 1/4" Use the masking tape as a guide to make sure you are overlapping the proper amount .Install the spinner back plate and align the front of the cowl with the back plate leaving at least 1/8" clearance. Tape the cowl in place to hold it while you drill the holes for the mounting screws. Drill four 1/16" holes, two on each side of the cowl. Use the number 2 screws to hold the cowl in place. Make sure the screws go into the firewall on each side. Remove the tape and install the prop and spinner.

Cut clearance for the muffler and install.

The CG should be 5-7/8" behind the leading edge measured at the fuselage.

The control throws should be :

Ailerons Low rate 3/8" both directions
High rate 7/8" both directions

Elevator Low rate 5/8" both directions
High rate 1" Both directions

The high rate will give a roll rate that is very fast, so be ready.