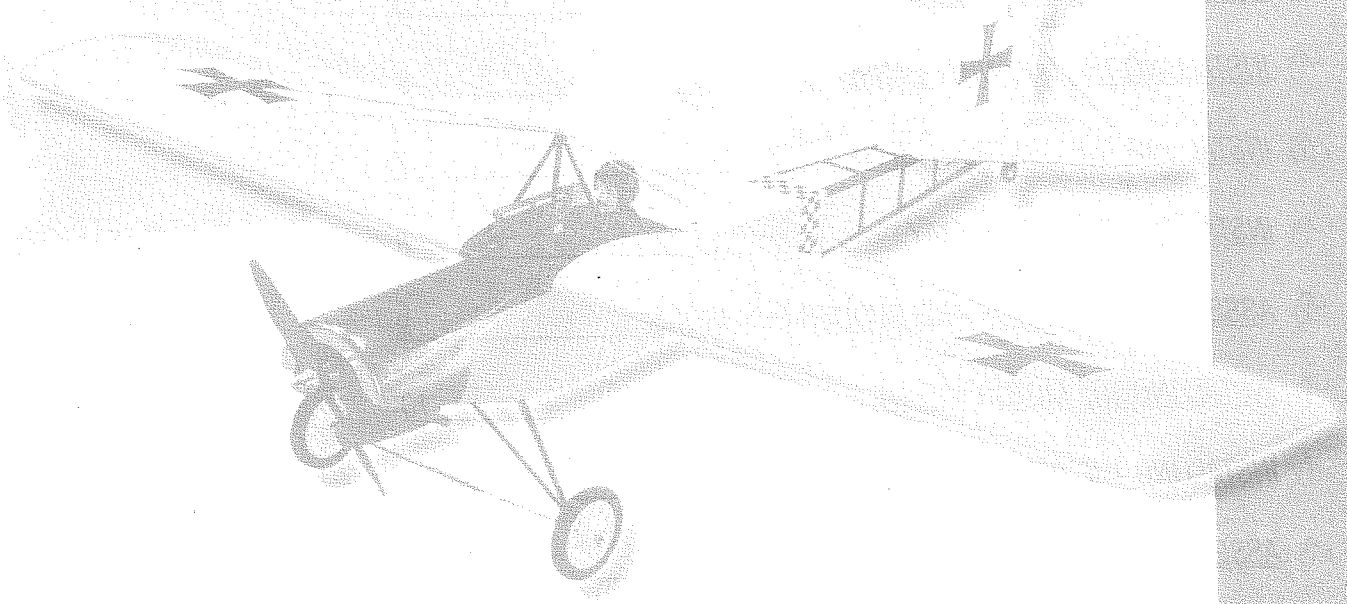
SUPER FLYING MODEL

Eindecker

INSTRUCTION MANUAL

SFM 8607



INSTRUCTION MANUAL

Specifications

Wingspan.....1610 mm (63 inches)
Wing Area..... 50.7 dm ^{2} (786 square inches)
Length.....1250 mm (49 inches)
Engine..... .35-.45(2C)
.40-.60(4C)
Radio..... 4 Channel

A.R.F.
ALMOST READY TO FLY

- ☐ F.R.P. engine cowling include
- ☐ All top-quality balsa and plywood construction
- ☐ Unique shock-absorbing land gear
- ☐ Extensive hardware included to save money

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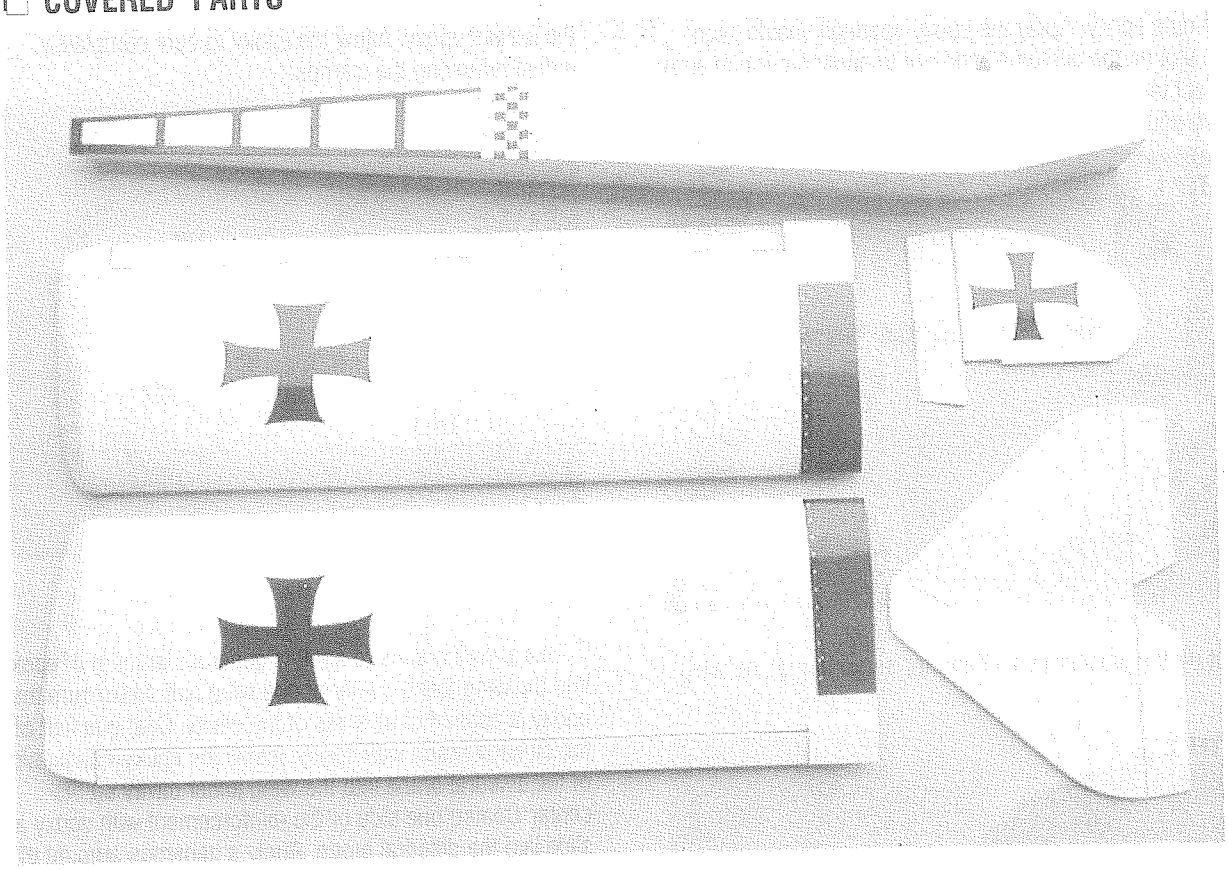
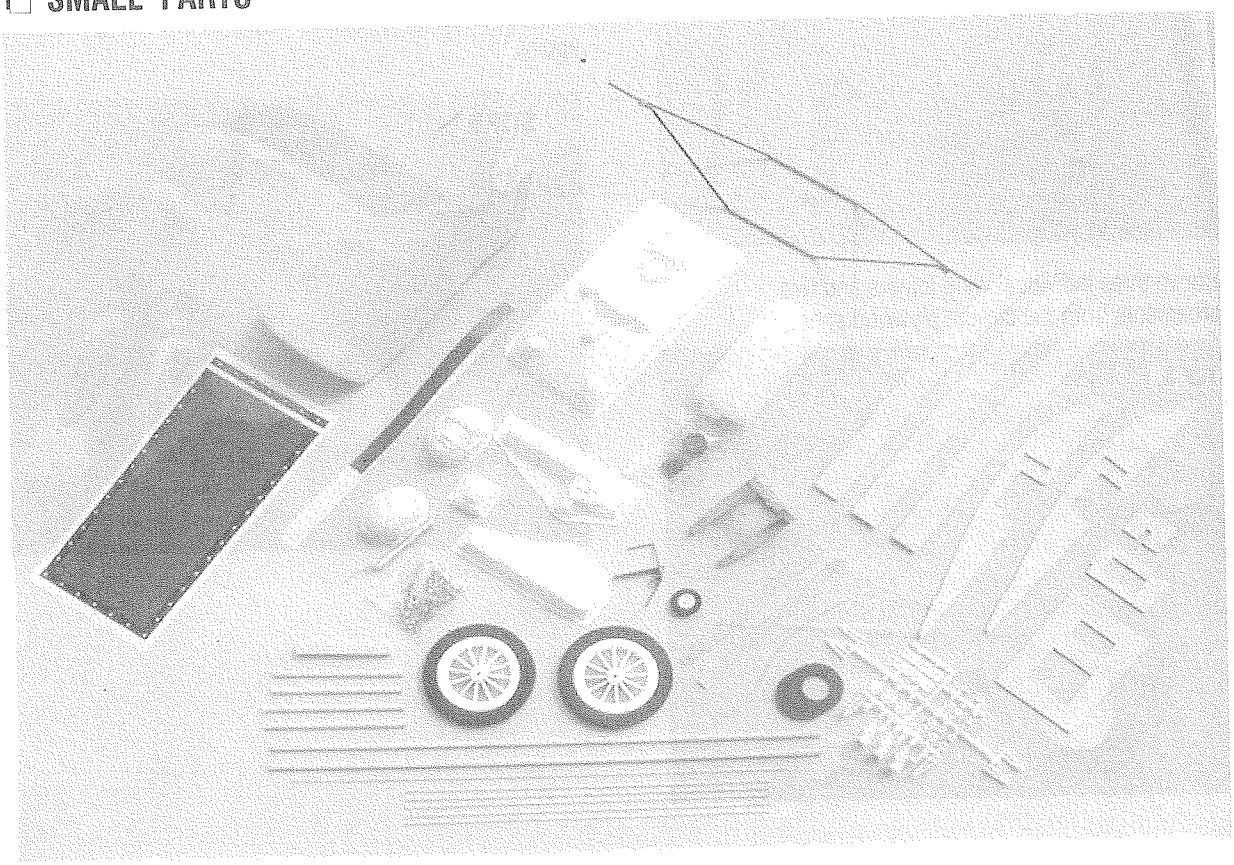
☐ COVERED PARTS

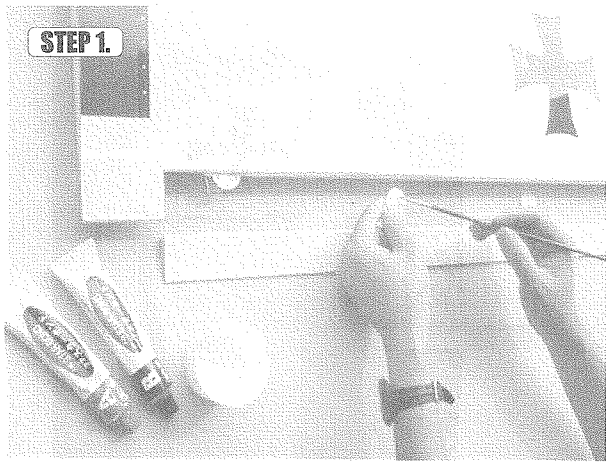


☐ SMALL PARTS

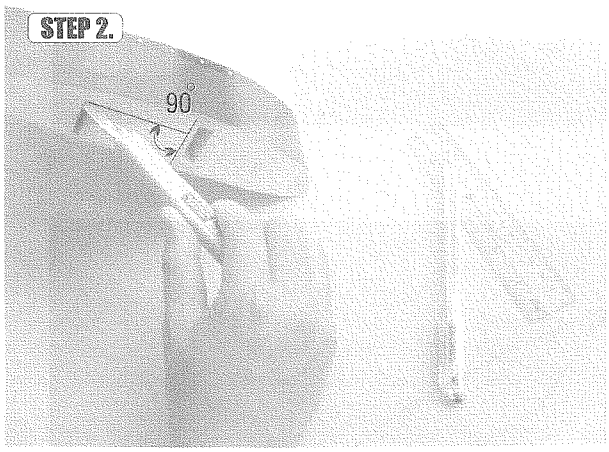


ASSEMBLING THE WINGS

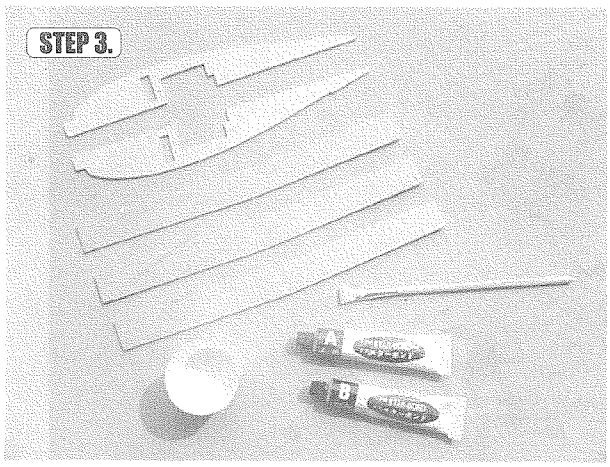
☐ Remove all four hinges from the aileron.Flex the hinges at the center line so they move freely. Mix a small amount of 30-minute epoxy. Apply the epoxy sparingly inside each hinges slot on the aileron.Noting not to apply too much epoxy to affect the movement of aileron.Insert the hinges into the aileron and assemble the aileron into the wings.



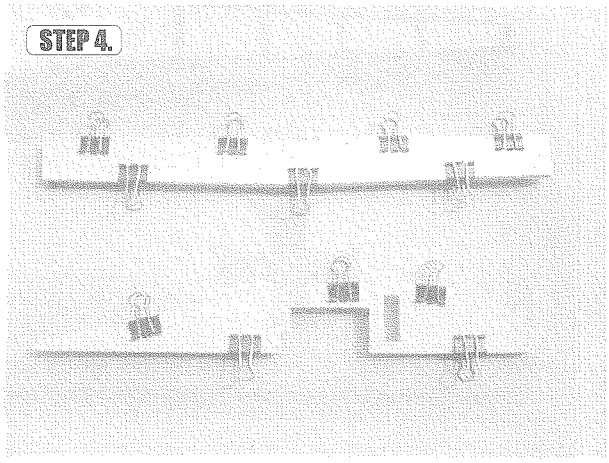
☐ Cut off the preserving location for servo bay of the wing root.



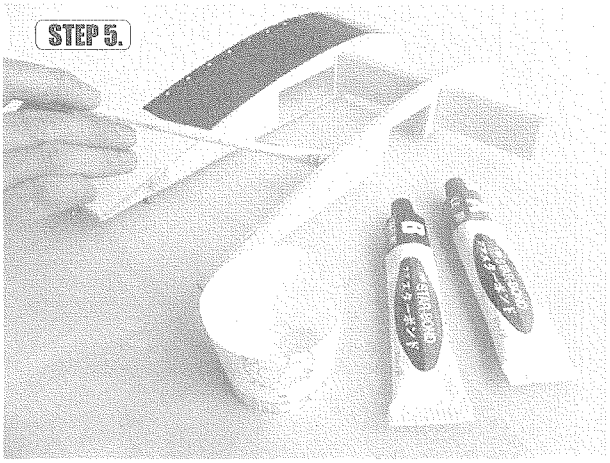
☐ Remove three individual wing joiners and two reinforcements from the die-cut plywood sheet.



☐ Apply epoxy on them. Clamp the three joiners together and two reinforcements together using clips. Wipe away the excess epoxy. Allow the epoxy to cure completely before removing the clamps.



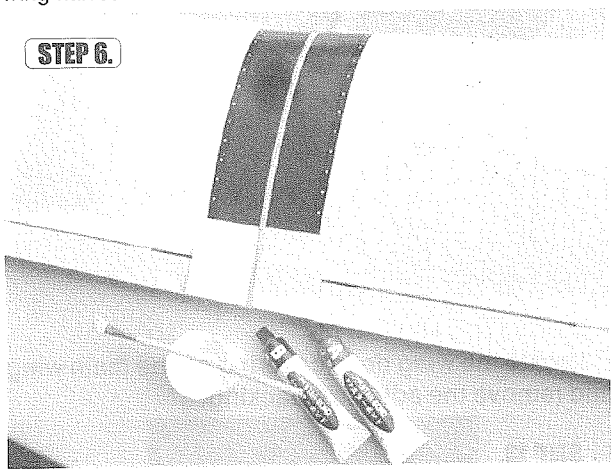
☐ Use a mixing stick to apply a generous amount of epoxy into the wing joiner cavity of one wing half. Make sure the epoxy is applied to all sides of the cavity. Coat one half of the dihedral brace with epoxy. Install the epoxy-coated side of the dihedral brace into the wing joiner cavity up the center. Coated one side of the reinforcement with epoxy and slide into the dihedral brace. Apply a generous amount of epoxy into the wing cavity of the other wing half. Smear epoxy on all sides of the exposed area of the dihedral brace and reinforcement and uniformly coat both wing roots with epoxy.



ASSEMBLING THE WINGS & INSTALLING THE AILERON SERVO TRAY

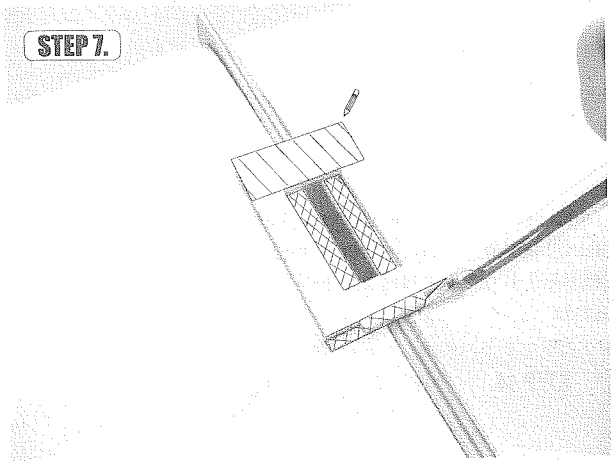
☐ Carefully slide the two wing halves together,ensuring they are accurately aligned.Firmly press the two wing halves together, allowing the excess epoxy to run out. Use care that you do not crush the wing by using too much force. Use rubbing alcohol and a paper towel to clean off the excess epoxy. There should not be any gap between the wing halves.

STEP 6.



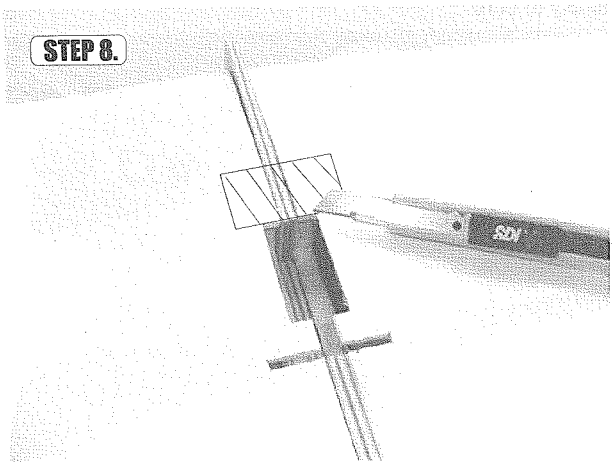
☐ Place the wing halves on the flat surface so the bottoms are facing upward. Remove the aileron servo tray and the tray support from the die-cut plywood sheet. Place the servo tray on the main wing. Center the tray across the seam between the wing halves. Using a felt tipped pen,trace around the inside and outside edge of the aileron servo tray.

STEP 7.



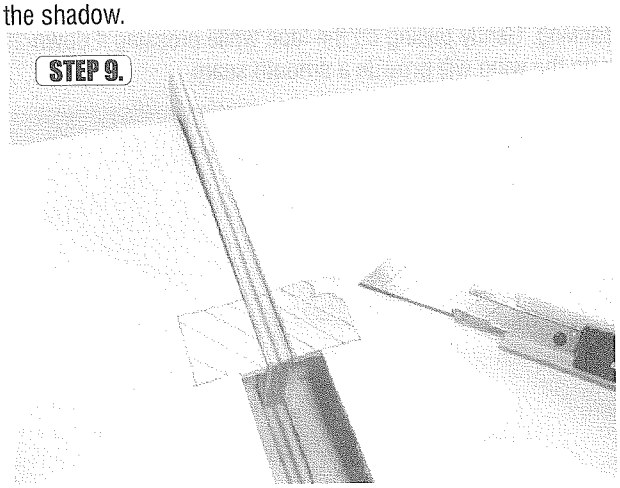
☐ Remove the servo tray and mark the shadow as shown. With a sharp hobby knife carefully cut a wide slot through both the covering and the balsa wood along the bottom lines as shown. Try to fit the aileron tray support into the slot. It may be necessary to enlarge the slot slightly to accommodate the support. With knife, cut the balsa wood along the inside lines. Remove the excess balsa from this hole.

STEP 8.



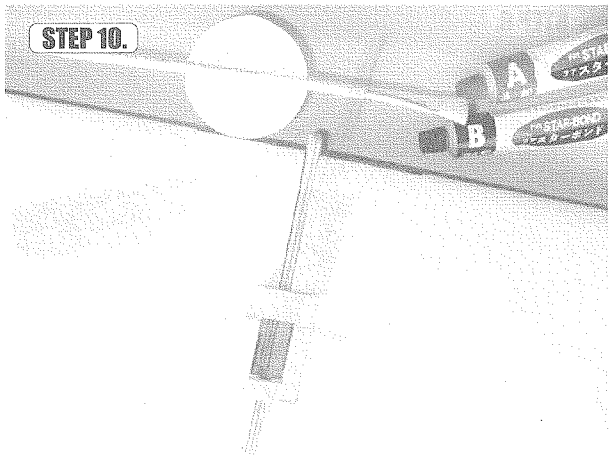
☐ With a sharp hobby knife, carefully cut the covering of the shadow.

STEP 9.

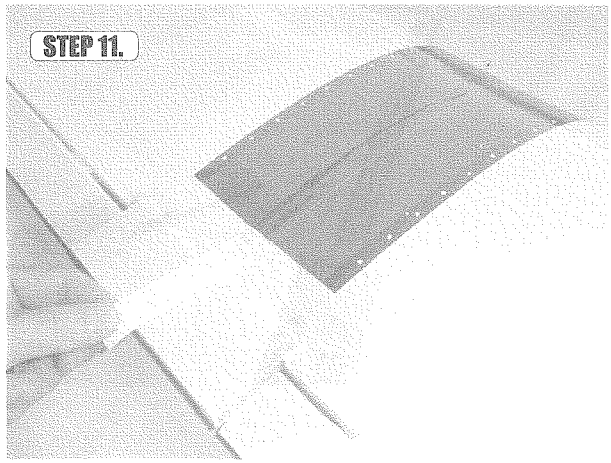


INSTALLING THE AILERON SERVO TRAY

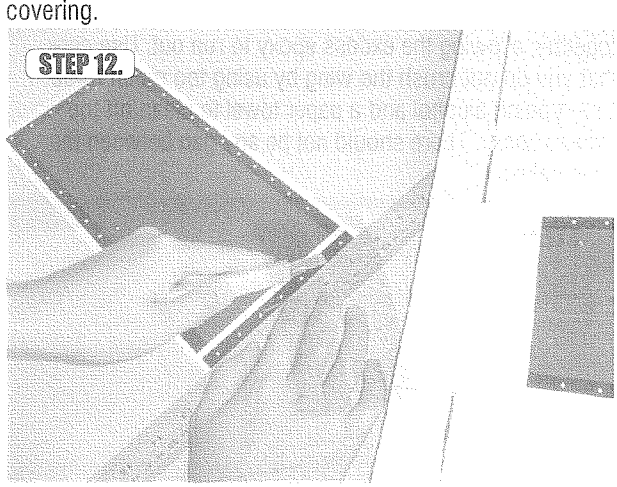
☐ Trial fit the aileron servo into the servo tray, depending upon the dimensions of the aileron servo, it may be necessary to enlarge the servo tray slightly. Spread thick CA along the joint between the aileron servo tray and the aileron servo support and glue them. Apply the epoxy to the aileron servo support. Insert the assembled unit into its receptacle in the wing. Remove any excess epoxy. Allow the epoxy to cure.



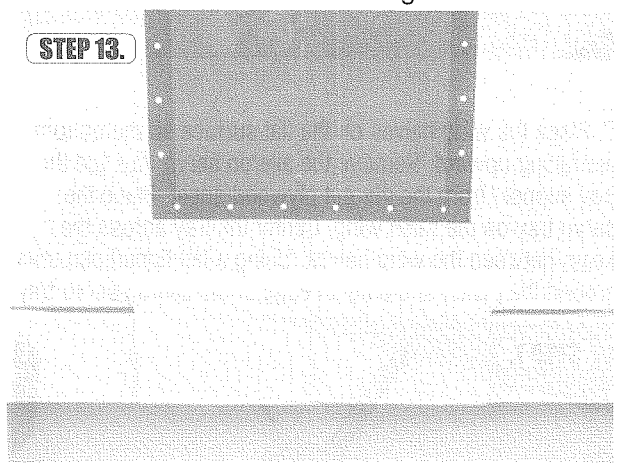
☐ Locate the wing center tape and remove the adhesive backing. Gently pulling on the tape while pressing it down onto the wing will provide a smooth seam.



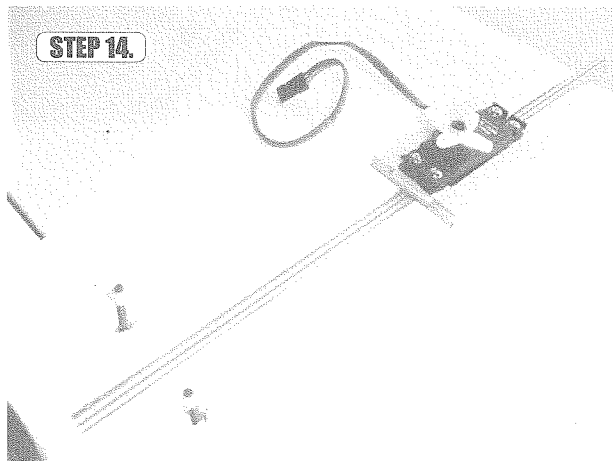
☐ Use ruler & sharp hobby knife to trim the wing deco covering.



☐ Locate the wing deco covering on the main wing and remove the adhesive backing.



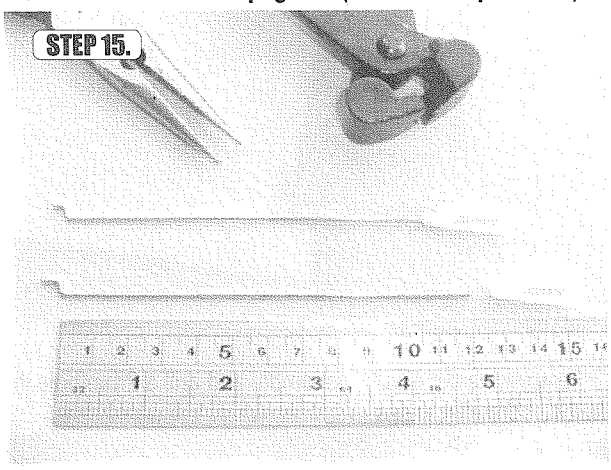
☐ Install the rubber servo grommets and eyelets in the aileron servo. Place the servo into the aileron mount and secure it in place using the four screws included with the servo.



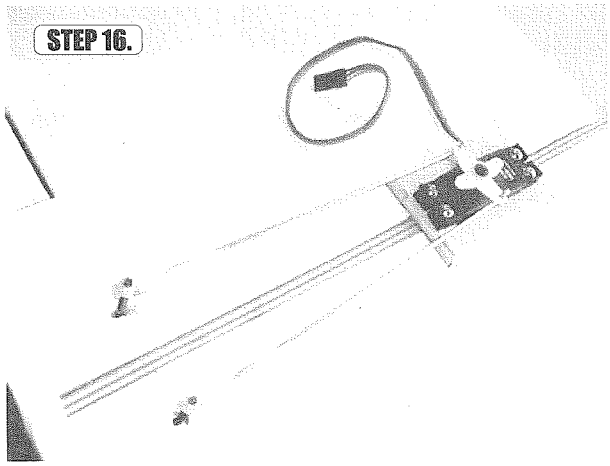
INSTALLING THE AILERON LINKAGES & TAIL

☐ Remove the two aileron horns from the plastic parts tree. Thread the aileron horns onto the aileron torque rods in the wing until the rod is flush with the aileron horn. Locate two of the 330mm threaded rods and two clevises. Screw a clevis onto the threaded end of each rod, making 12 complete turns.

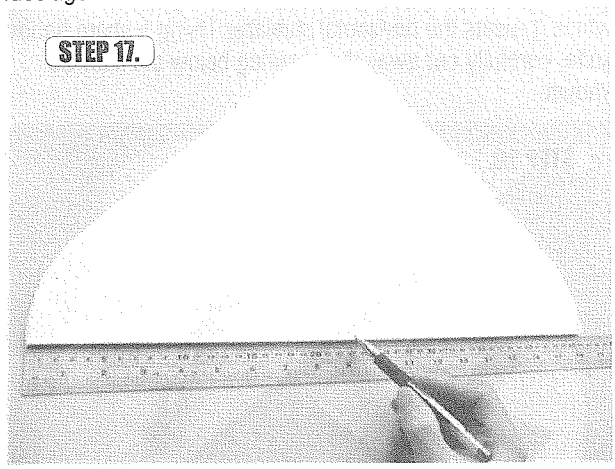
☝ **Please refer to the page 20.(1:1 scale of pushrods)**



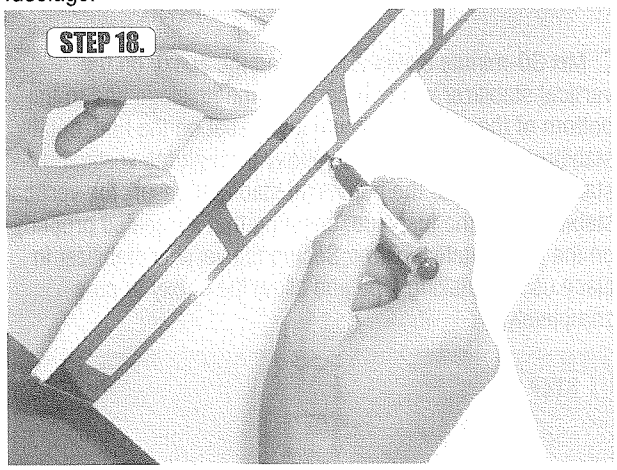
☐ Attach the clevises onto their respective aileron horns. Center the aileron servo,place a mark on the unthreaded end of the aileron pushrods where they pass their respective servo arm. Using Z-bend pliers, make a Z-bend at the marked location on each rod and cut off the excess rod. Install the Z-bend into the outermost hole on either side of the servo arm. Adjust the aileron torque rod length by screwing in or out until the aileron is exactly in the neutral position when the servo is centered and the clevis is in the aileron horn. Adjust both sides.



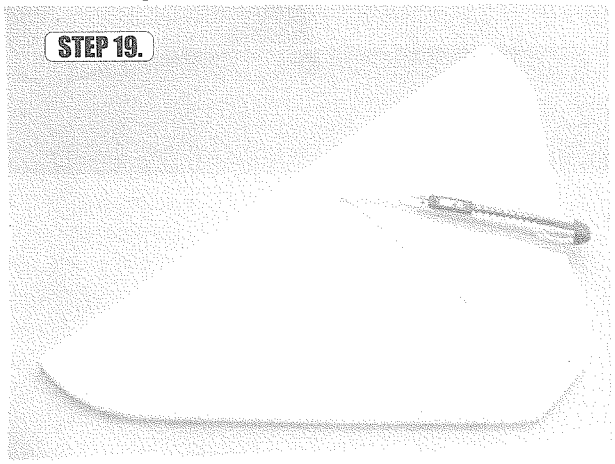
☐ Measure the center point at the rear of the horizontal stabilizer. Trial fit the horizontal stabilizer in place on the fuselage.



☐ Check the alignment of the horizontal stabilizer. When you are satisfied with the alignment, use a pencil to carefully trace around the bottom of the stabilizer where it meets the fuselage.

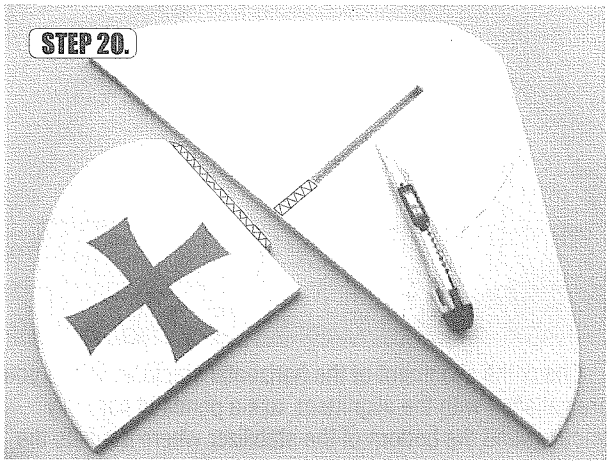


☐ Remove the horizontal stabilizer from the fuselage. Using a straight edge make sure the lines drawn are straight. Using a sharp hobby knife, carefully cut away the covering inside the lines marked above. Be careful not to cut into the wood as doing so will weaken the structure.

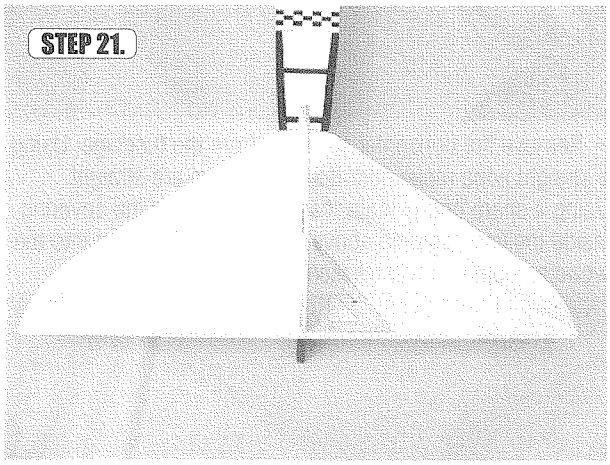


INSTALLING THE TAIL & TAIL WHEEL ASSEMBLY

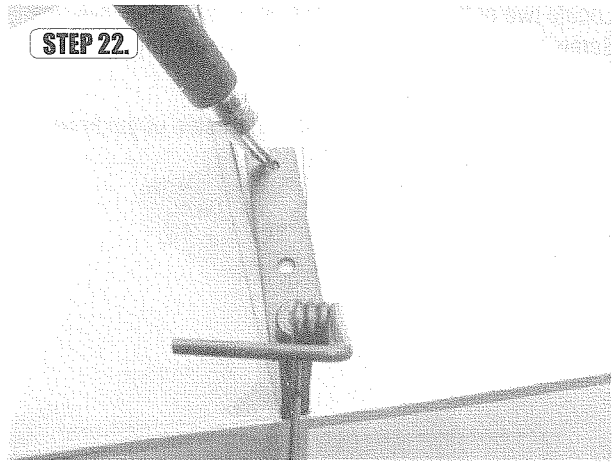
☐ Trial fit the vertical stabilizer in position. Check to be sure that the vertical stabilizer is perpendicular to the horizontal stabilizer. Using a pencil, trace around the vertical stabilizer where it meets the horizontal stabilizer. Using a sharp hobby knife, carefully cut away the covering below the lines as shown.



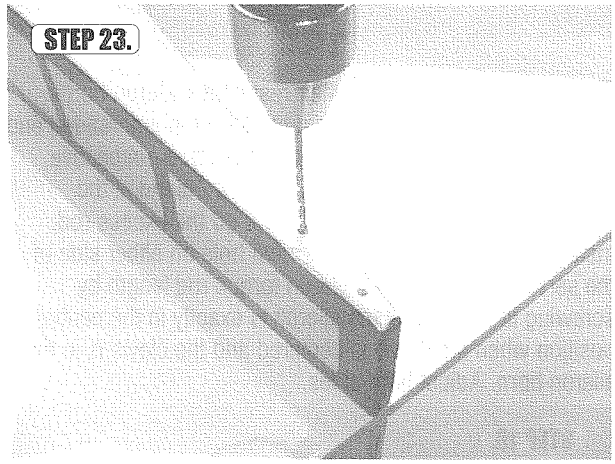
☐ Mix 30-minute epoxy and spread the epoxy on the vertical stabilizer where it contacts the fuselage and to the bottom of the stabilizer where it will seat on the horizontal stabilizer. Additionally, apply epoxy through the vertical stabilizer slot onto the horizontal stabilizer. Insert the vertical stabilizer into the fuselage, ensuring that it's seated properly on the horizontal stabilizer. Secure the vertical stabilizer in place using masking tape and allow the epoxy to cure completely.



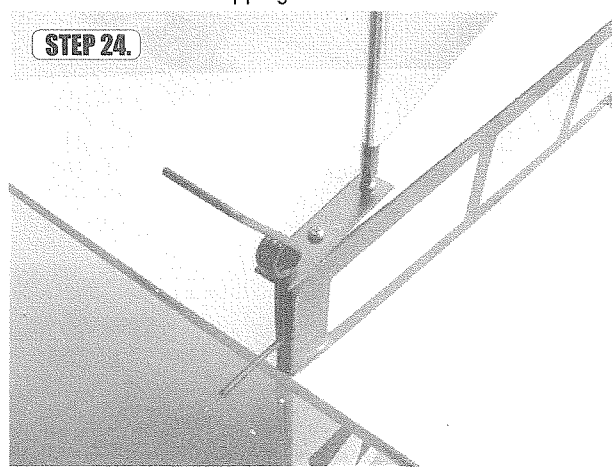
☐ Take the tail wheels assembly and place it in the location to be installed on the bottom side of fuselage. Mark the screw location for the tail wheel mounting plate.



☐ Remove the tail wheel assembly and drill a 2mm hole in the two screw locations.

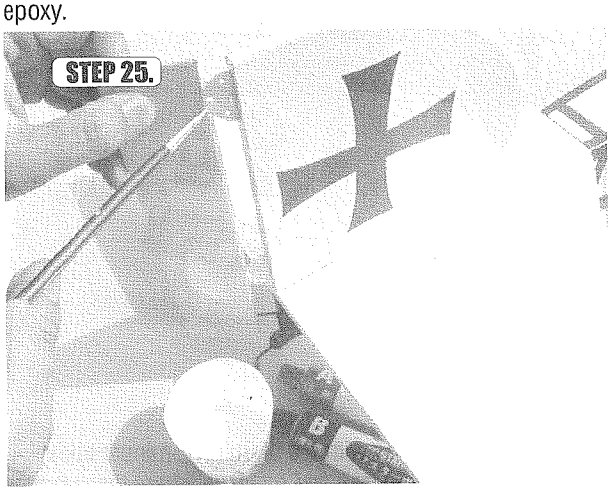


☐ Install the tail wheel assembly to the fuselage using the two 3x12mm wood-tapping screws.

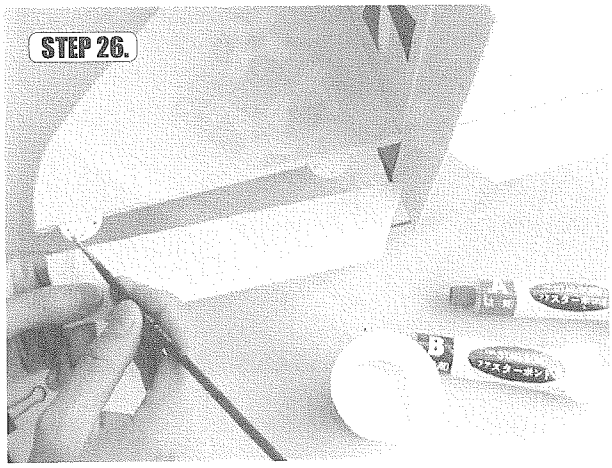


INSTALLING THE CONTROL HORNS

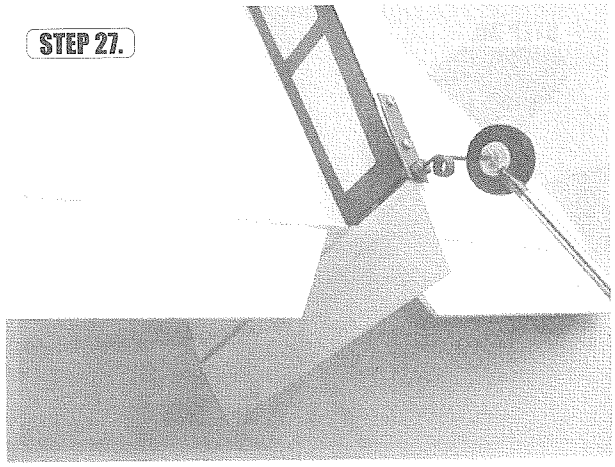
☐ Take two hinges for the rudder and flex them accordingly so they move freely. Mix a small amount of epoxy. Apply the epoxy sparingly inside each hinge slot on the rudder. Additionally, apply a small amount of epoxy to the top and bottom half of each hinge.Insert the hinges into the rudder until the hinge line is even with the leading edge of the rudder. Apply epoxy to the remaining half of each hinge and into the hinge slots in the vertical fin as well. Replace the rudder onto the vertical fin. Be sure to insert the tail wheel wire guide into the rudder. Carefully wipe away any excess epoxy.



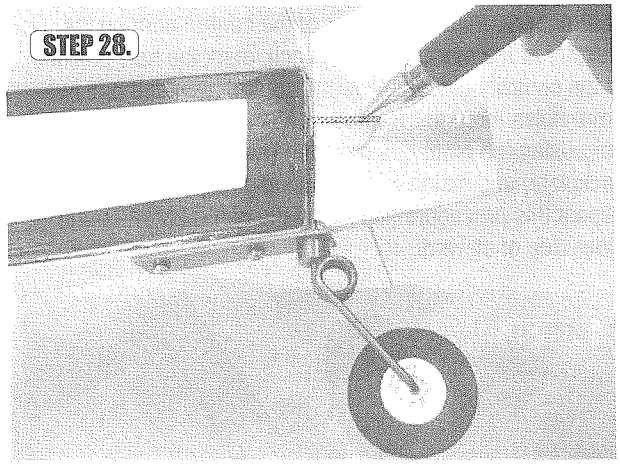
☐ Repeat this procedure to install the elevator to the horizontal stabilizer.



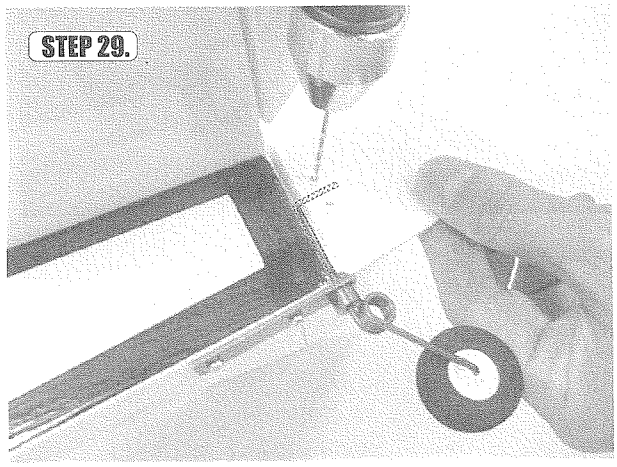
☐ Install the tail wheel onto the tail wheel assembly and secure it with the supplied tail wheel collar and screw.



☐ To mark the rudder control horn location. Try to find the tail wheel wire guide in the rudder and mark its position. Center the control horn over this line, using a felt tipped pen or pencil, mark the mounting-hole locations through both holes onto the rudder.

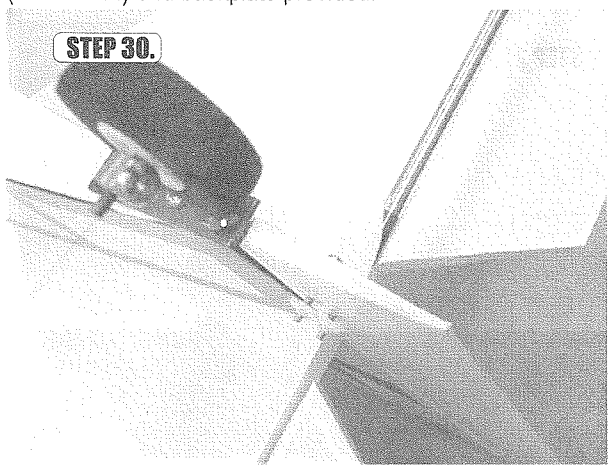


☐ Drill these holes (2mm).

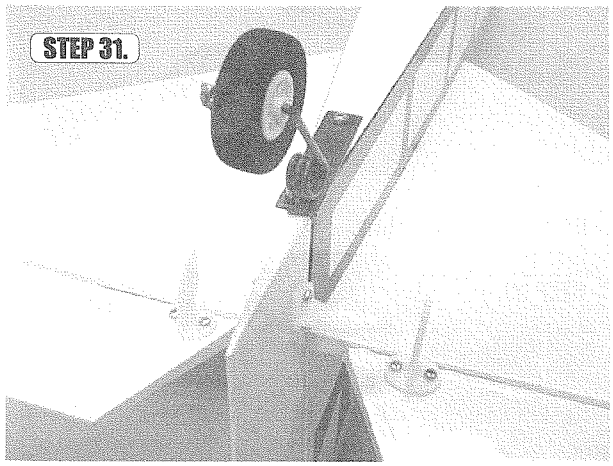


INSTALLING THE CONTROL HORNS & SERVO TRAY

☐ Install the rudder control horn using the two screws (M2x14mm) and backplate provided.

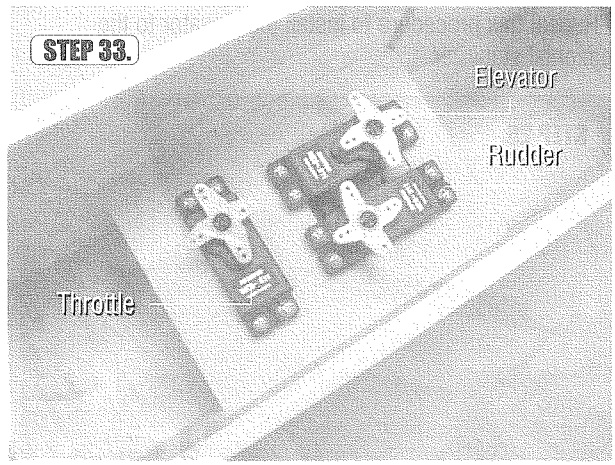


☐ Note that the elevator control horn will be mounted to the bottom of the elevator. Measure over 32mm to the right of the fuselage tail section on the fuselage. Mark the elevator with a pencil. This mark will be the center of the elevator control horn. Place the center of the control horn on the elevator at the mark. Using a pencil, mark the hole position of the control horn. Remove the control horn and drill two 2mm holes through the elevator.Attach the elevator control horn using the hardware provided (two M2 x 14 screws and backplate) and fasten in place using a Phillips screwsdriver. Repeat this procedure and install the control horn on the other side of elevator.



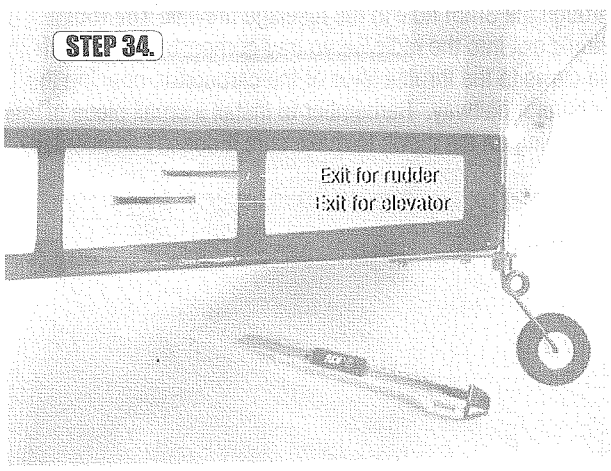
☐ Before installing the servo tray, place the servos into each opening and mark the screw hole locations. Remove the servos and trial fit the servo tray into the fuselage. Some trimming of the servo tray may be required for a good fit. Install the rubber grommets and eyelets in the three servos. Screw the servos in place.

☐ Once you are satisfied with the fit, mix 12-minute epoxy and apply it to the servo tray and fuselage where the servo tray will rest. Allow the epoxy to cure completely before proceeding.



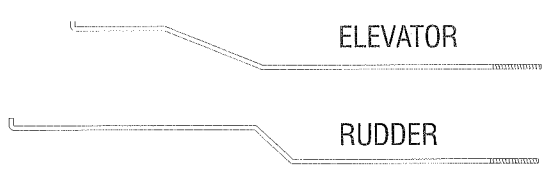
ASSEMBLING ELEVATOR & RUDDER PUSHRODS

☐ Carefully cut away the covering on the left side at the tail where the rudder pushrod and elevator pushrod will exit.



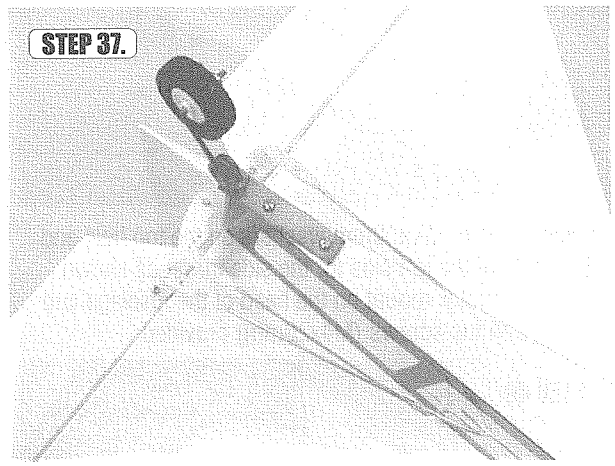
☐ Locate three of the threaded rods as the size indicated in the drawing.

☝ Please refer to the page 20.(1:1 scale of pushrods)

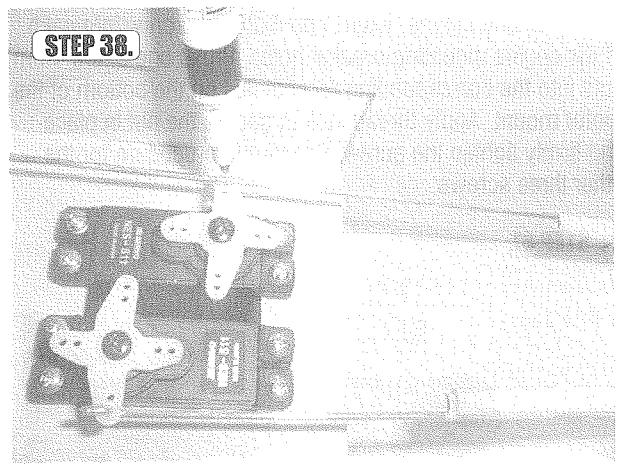


☐ Using scissors, cut the heat shrink tubing into two equal pieces. Cut 330mm (13") of the threaded rod (measured from the threaded end). Using needle nose pliers, bend a 90degree angle, 64mm (2 1/2") from the unthreaded end of the threaded rod. Insert the 90-degree bend into the hole of the pushrod dowel and saturate the dowel with thick CA glue where the rod contacts the dowel. Allow curing. Slide a piece of heat shrink tubing over the end of the pushrod dowel and use a heat gun to shrink it in place over the rod/dowel connection as shown.

☐ Insert the rudder pushrod assembly, threaded end first , into the fuselage so the threaded end exits the rudder pushrod hole in the fuselage. Screw on a clevis 30 complete turns.Fasten the clevis in the third hole from the inside of the rudder control horn. Insert the elevator pushrod assembly, threaded end first, into the fuselage so the threaded end exits the elevator pushrod opening in the fuselage tail end. Screw on a clevis 30 complete turns.Fasten the clevis in the third hold from the inside of the elevator control horn.

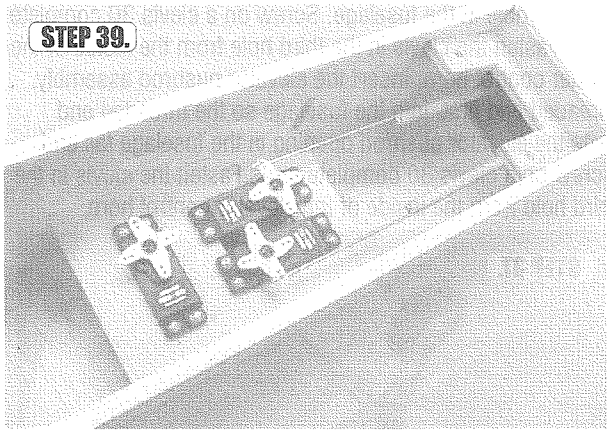


☐ Turn on both the transmitter and receiver. Adjust all the trims on the transmitter to their neutral positions. Make sure the rudder servo horn is in its neutral or electrical zero position. Center the rudder servo and, using a pencil, place a mark on the unthreaded end of the rudder pushrod assembly where it passes the respective servo arm. Using Z-bend pliers, make a Z-bend at the marked location on the rod. Cut off the excess rod. Insert the Z-bend into the servo arm. It may be necessary to enlarge the servo arm hole slightly to accept the Z-bend.



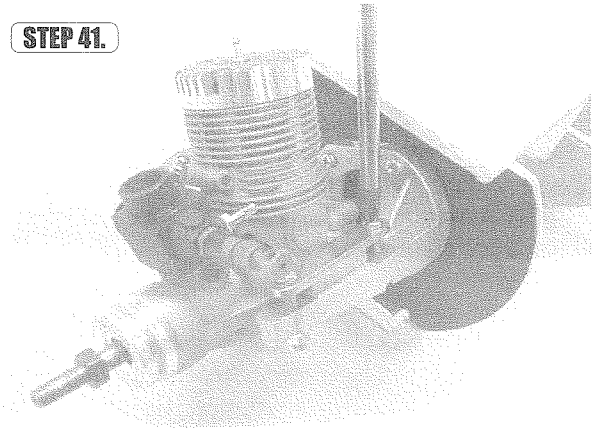
INSTALLING THE MOTOR MOUNT & THROTTLE LINKAGE

☐ Center the elevator servo as we did in last procedure and complete the linkages.

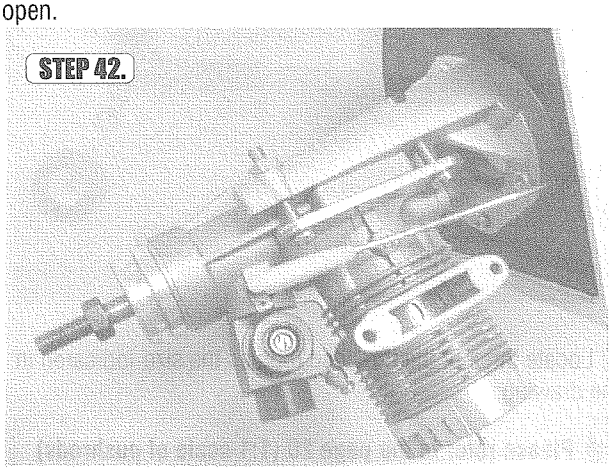


☐ Place 4 pcs of M4x10mm washers on the top hole and bottom hole of the left side for the side thrust as shown. Position the motor mount on the head of the fuselage and secure it with the screws (M4x20mm) provided .

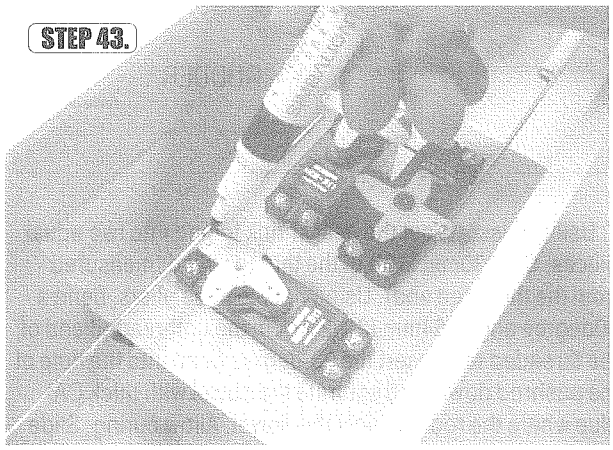
☐ Position the engine (without muffler) on the motor mount. Place one engine mounting bracket across each of the engine mounting lugs. Insert one 4x20mm screw into each of the engine mounting bracket holes. Press one of the 4mm nuts into the corresponding receptacles on the bottom of the motor mount. Apply thread lock to secure the nut in place and firmly tighten the screw. Repeat the procedure for the other three screws.



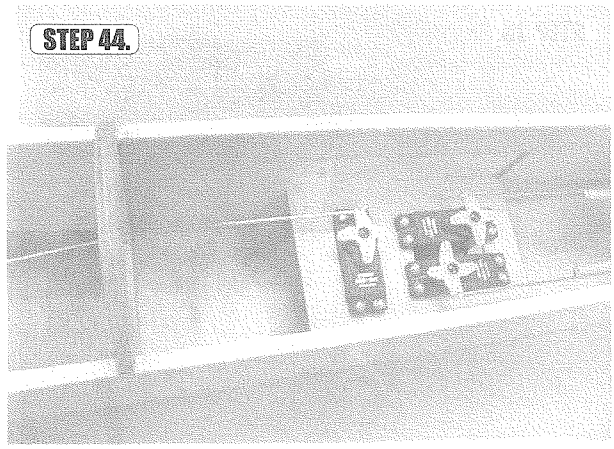
☐ Locate one of the longer threaded rods (450mm) and one clevis. Screw the threaded rod, unthreaded end first, through the 3mm hole in the fuselage firewall. The rod should exit into the radio/servo tray compartment. Attach the clevis to the throttle lever of the carburetor, opening the carburetor halfway. Remember to install a small piece of fuel tubing on the clevis to make sure it doesn't accidentally open.



☐ Center the throttle servo. Using a felt tipped pen, mark the rod where it passes the throttle servo arm.



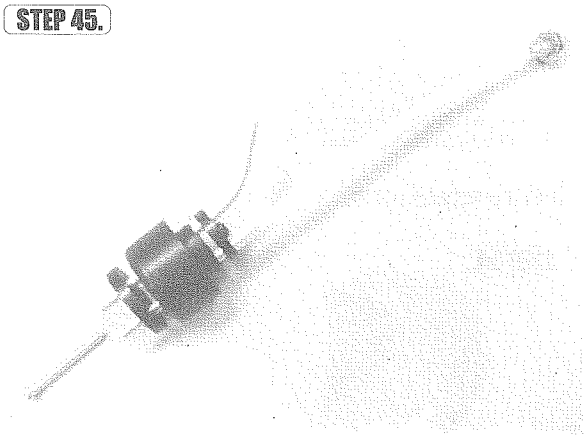
☐ Using Z-bend pliers, mark a Z-bend at the marked spot on the rod and cut off the excess rod. Attach the Z-bend to the throttle servo arm.



ASSEMBLING & INSTALLING THE FUEL TANK

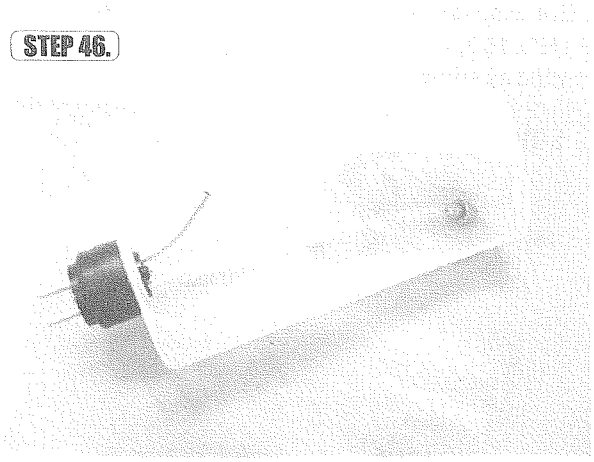
☐ Locate the fuel tank and the fuel tank accessory bag. Insert the short aluminum tube into one of the open holes in the black stopper so that an equal amount of the tube extends from either side. Locate the longer aluminum tube and carefully bend it with your fingers as shown. Slide this tube into the remaining hole in the black rubber stopper. Slide the two black plastic caps over the aluminum tubes, noting the orientation of the caps. Locate the silicone fuel tubing and the metal clunk. Insert the fuel clunk into one end of the fuel tubing. Install the open end of the fuel tubing on the shorter aluminum tubing.

STEP 45.



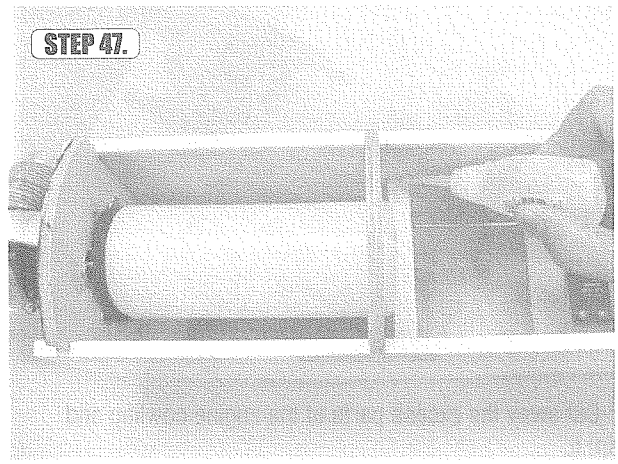
☐ Carefully insert the assembly into the fuel tank and, using the self-tapping screw,screw the stopper together firmly. Then insert the assembly into the tank and tighten the screw so the stopper is snug in the tank. As the screw is tighten, the stopper parts come together, compressing the rubber stopper snugly inside the throat tank.

STEP 46.



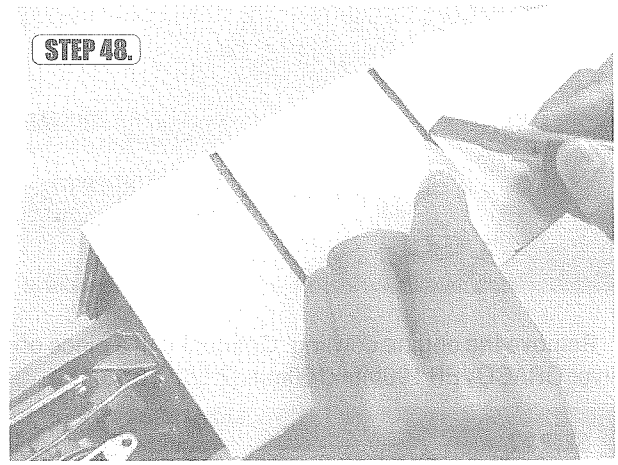
☐ Place the foam fuel tank collar around the neck of the fuel tank. Locate the fuel tank in the fuselage. Press the fuel tank firmly against the firewall until the stopper inserts into the hole in the firewall. Securing the tank by using epoxy and 10mmx10mm wood block.

STEP 47.



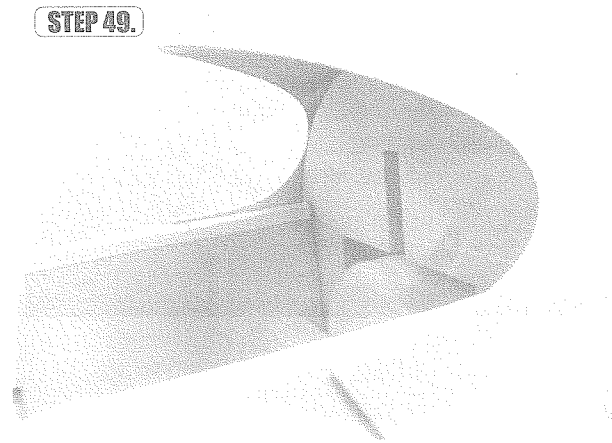
☐ Locate the main landing gear slot located in the bottom of the fuselage by running your hand along the underside of the fuselage. Using a sharp hobby knife, remove the covering from the slot.

STEP 48.



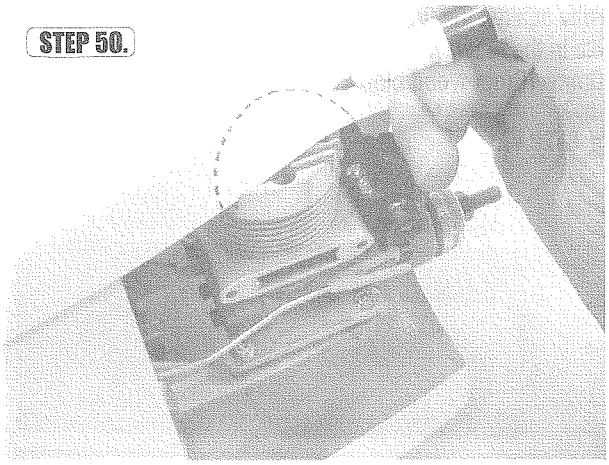
☐ Slide the engine cowling as shown.

STEP 49.

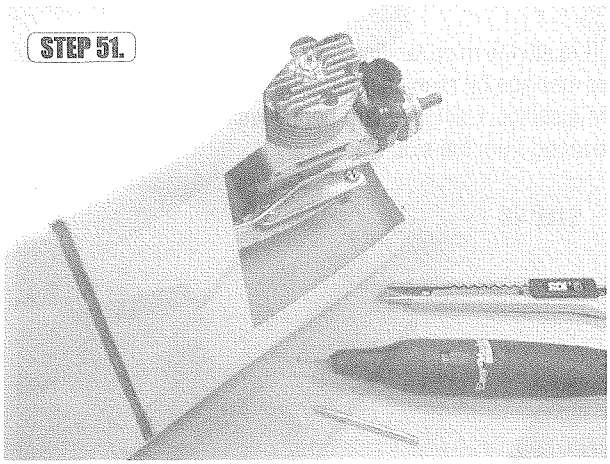


INSTALLING THE COWLING

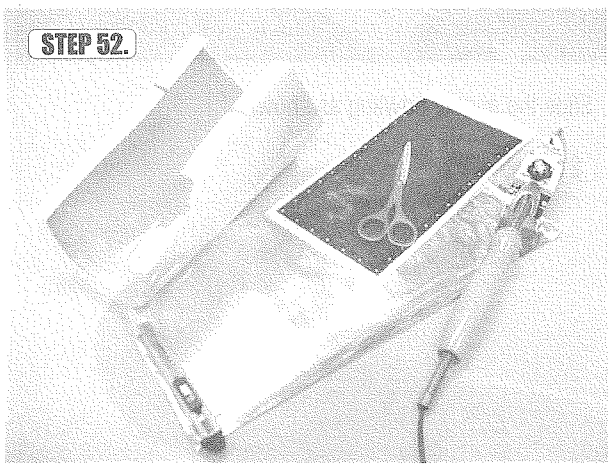
☐ Use a felt tipped pen to mark the excess parts of the engine cowling.



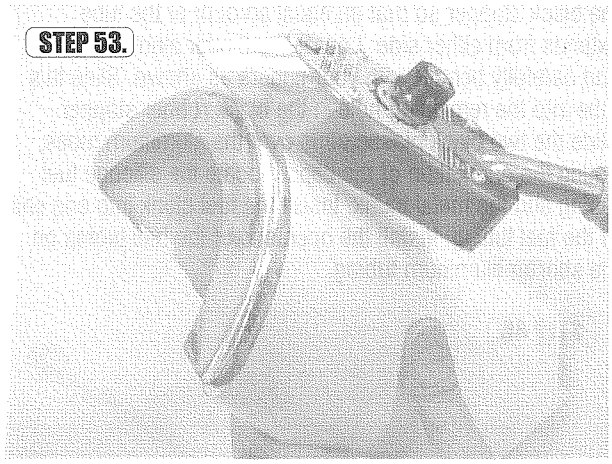
☐ Cut away the excess parts of the engine cowling and trim it.



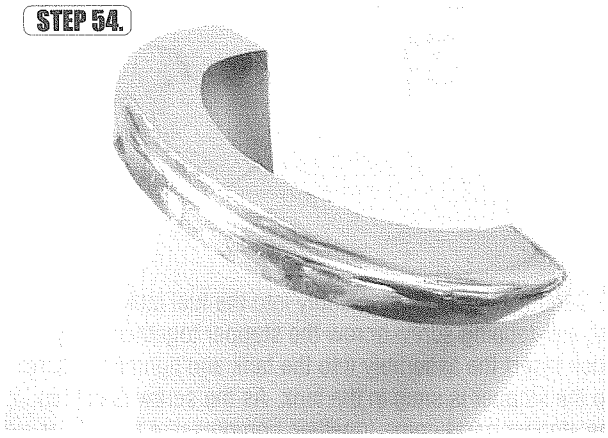
☐ Remove the engine cowling. Optional: cut a piece of silver ORACOVER 190mmx100mm (7 1/2" x 3 15/16").



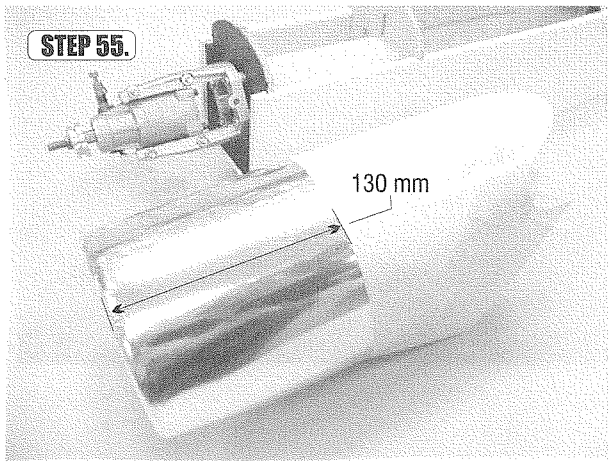
☐ Optional: iron the cut piece of ORACOVER on the head of the engine cowling.



☐ Trim the excess parts.

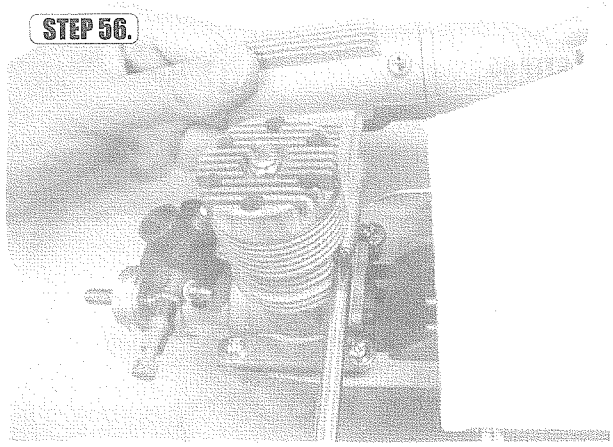


☐ Optional: cut silver ORACOVER 130mm x 400mm (5 1/8" x 15 3/4") and iron on the front part of the engine cowling as shown.

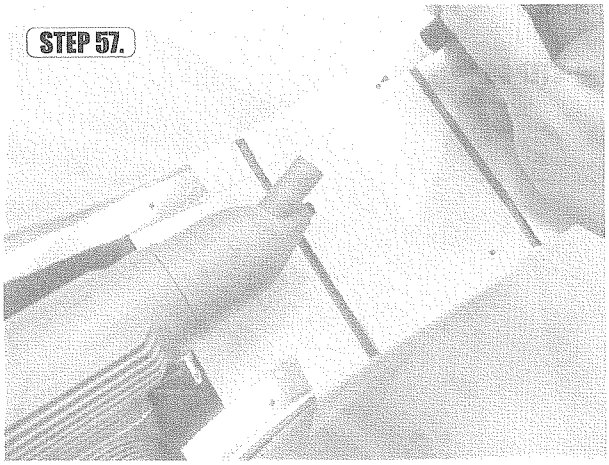


INSTALLING THE COWLING & MAIN LANDING GEAR

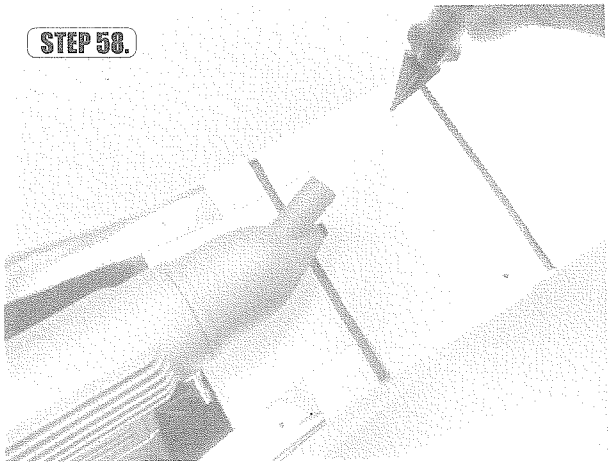
☐ Install the muffler to the engine.



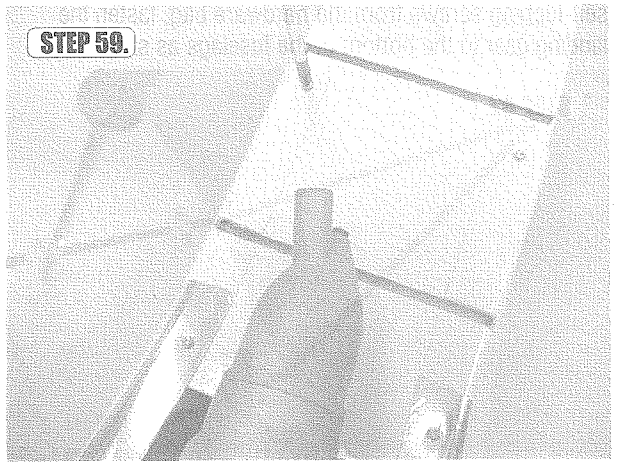
☐ Locate the engine cowling on the fuselage, using a felt tipped pen, mark the positions for securing the engine cowling.



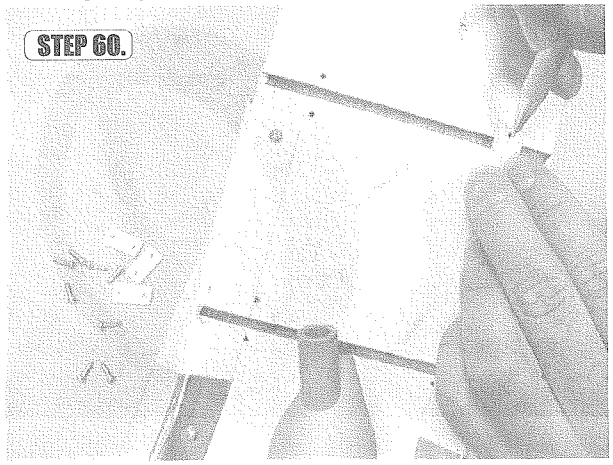
☐ Drill the holes for securing the engine cowling.



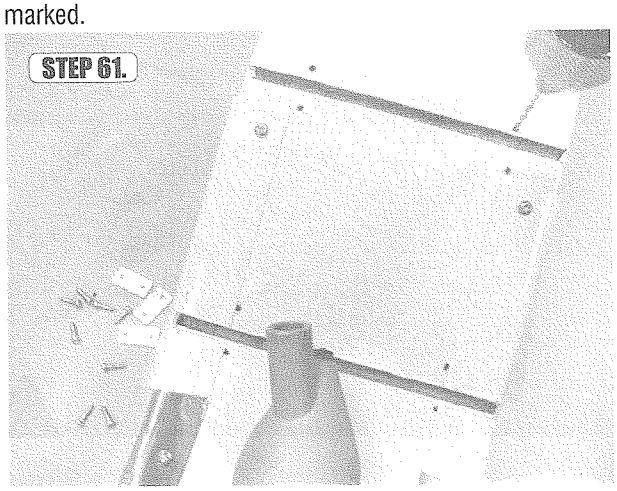
☐ Securing the engine cowling with four 2mm tapping screws.



☐ Locate the landing gear struts on the bottom of the fuselage. Remove the four landing gear straps from the plastic parts tree and place them across the landing gear struts so they are evenly spaced on the landing gear. Using a felt tipped pen, mark the locations of the four landing gear mounting strap holes.

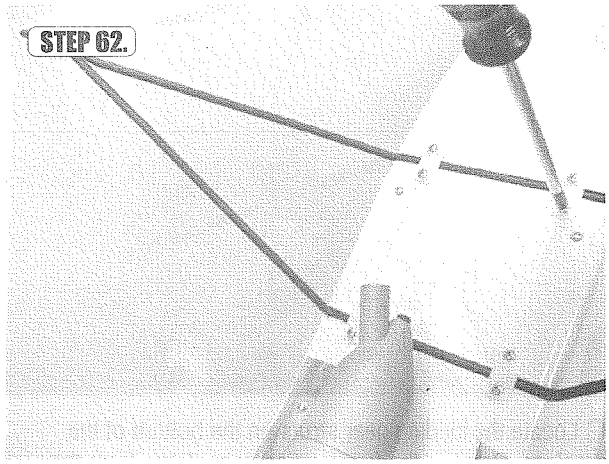


☐ Remove the landing gear straps and landing gears from the fuselage. Using a 1.5mm drill bit, drill four holes as marked.

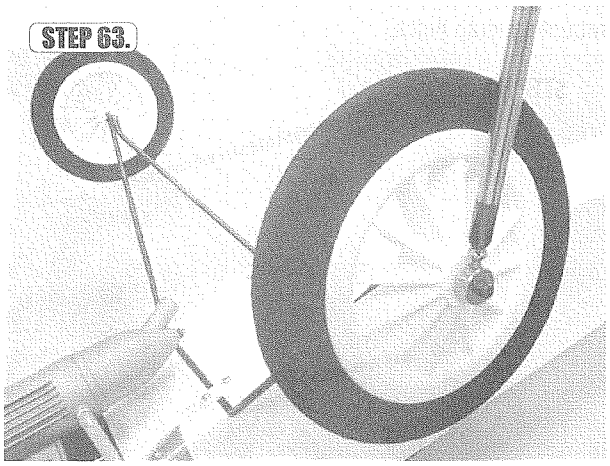


INSTALLING THE MAIN LANDING GEAR

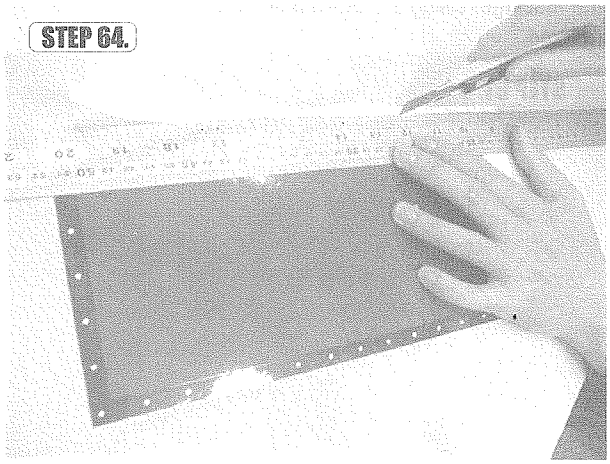
☐ Reposition the two main landing gear struts and the landing gear mounting straps. Using the four 2.6mm self-tapping screws from the hardware bag, fasten the landing gear to the bottom of the fuselage as shown.



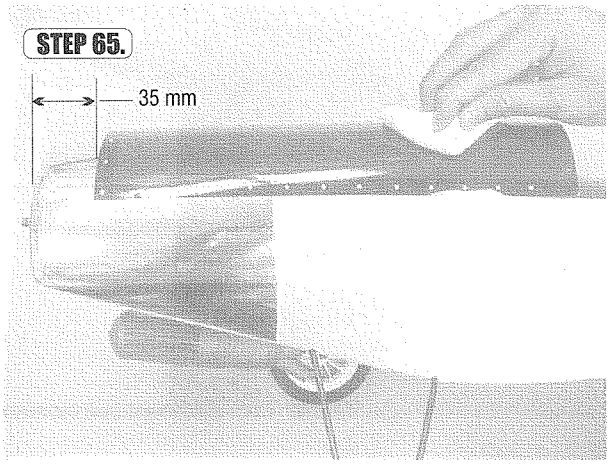
☐ Assemble the wheels. Securing the collars with M3x6 screws.



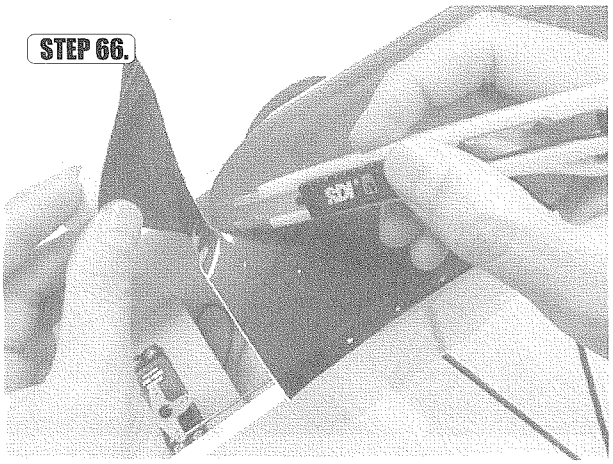
☐ Take the masking covering. Cut away the parts outside the black lines.



☐ Place on the top front part of the fuselage. Mark the excess parts.

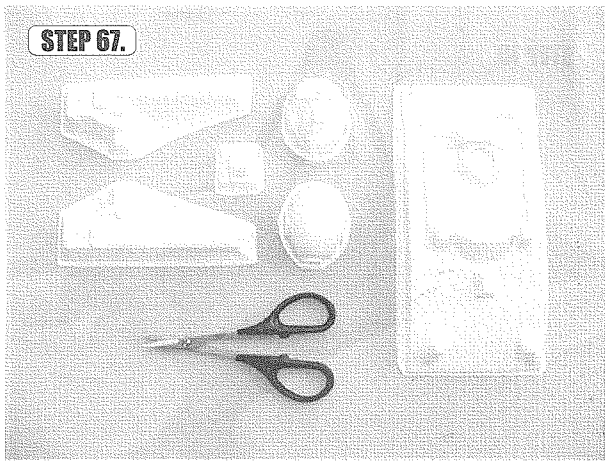


☐ Cover this masking covering and cut away the excess parts.

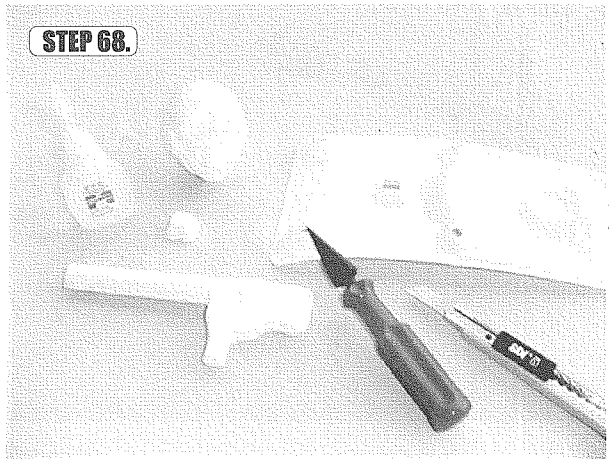


ASSEMBLING THE PLASTIC DECORATION

☐ Locate plastic parts of pilot, seat and gun. Use care in trimming away excess material.



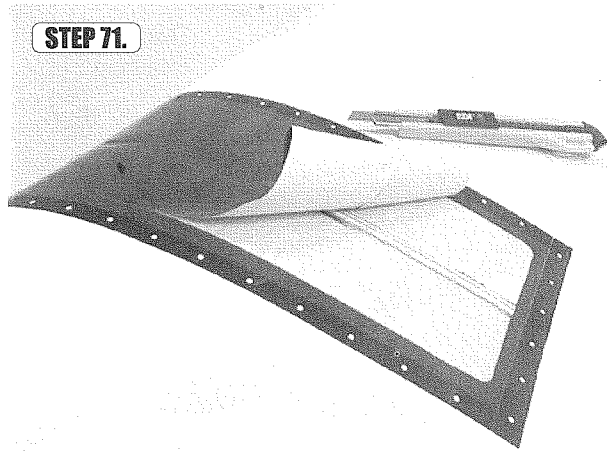
☐ Glue the plastic pilot and gun. Drill four 6.5mm holes on the seat.



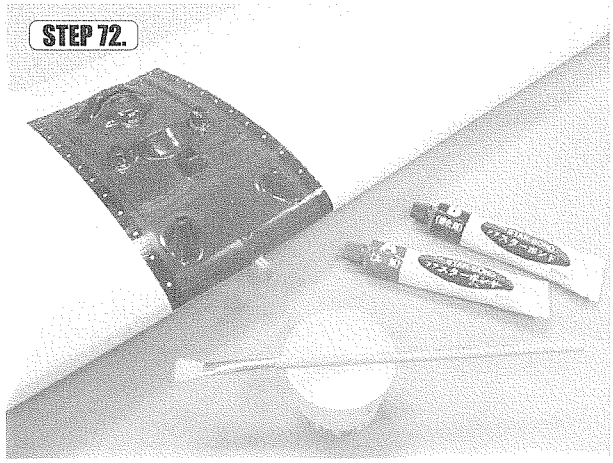
☐ Paint the plastic pilot, gun , four dowels and seat.

☐ Place the seat on the main wing as shown. Use a felt tipped pen and trace around the outside edge of the plastic seat; then remove the seat from the wing.

☐ Cut away the covering inside the mark. Be careful not to cut into the wood.

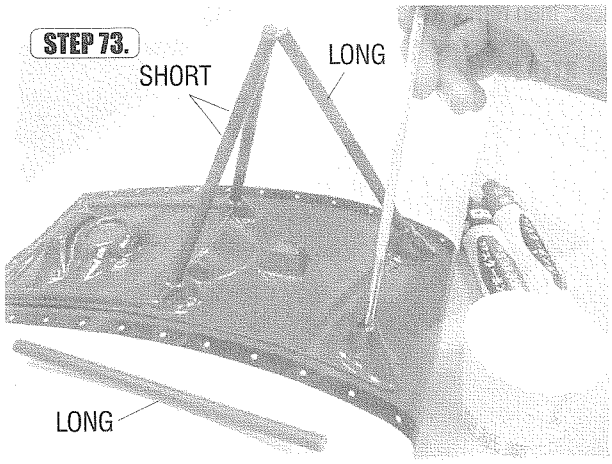


☐ Apply the epoxy on the seat and glue on the main wing.

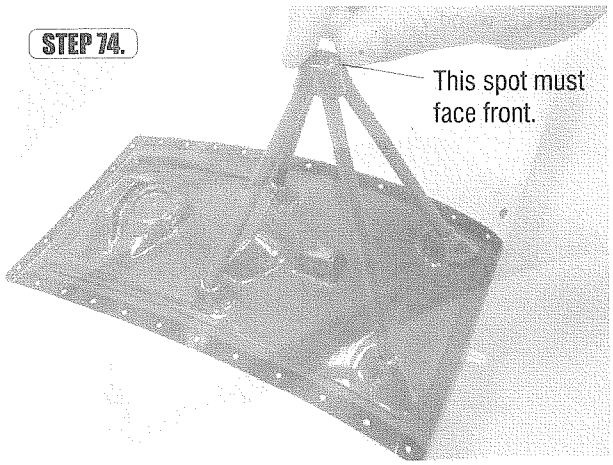


ASSEMBLING THE PLASTIC DECORATION & SILVER LINE

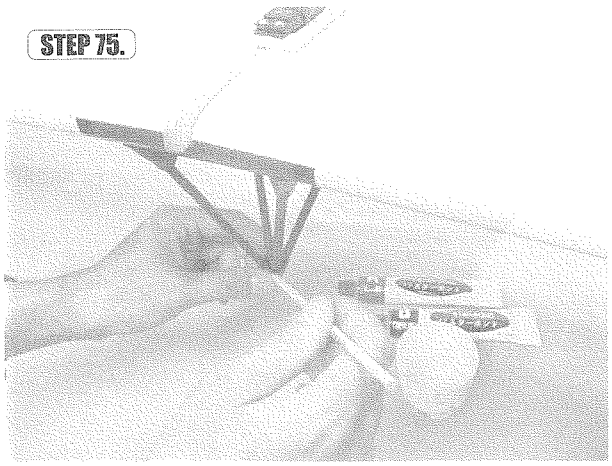
☐ Use epoxy to glue the four dowels on the seat. Use your hand to fix the dowels in the correct position before it cures.



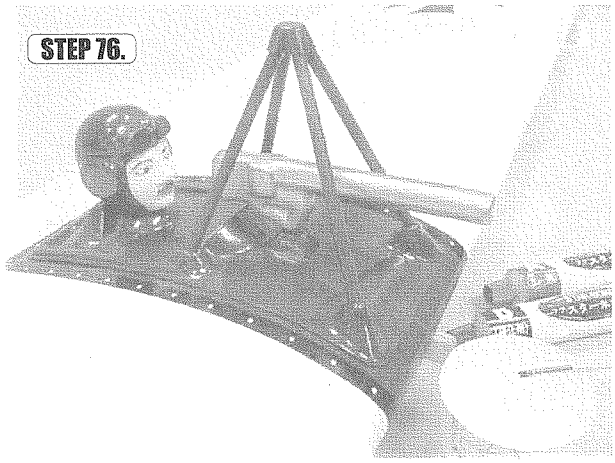
☐ Apply slight amount of epoxy inside plastic cap and glue it on the dowels. Allow the epoxy to cure.



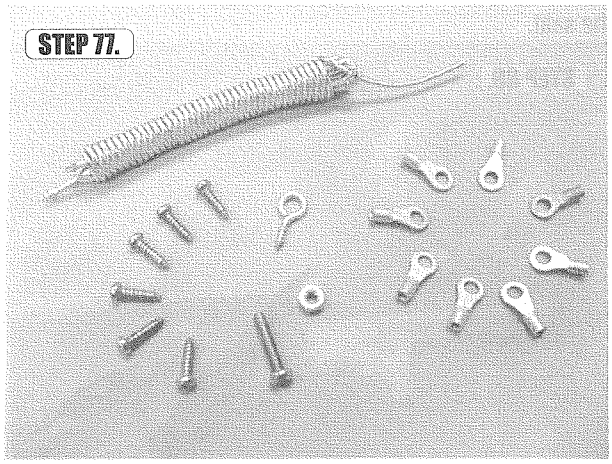
☐ Place the bottom of the main wing upward. Apply generous amount of epoxy in the plastic cap for reinforcement.



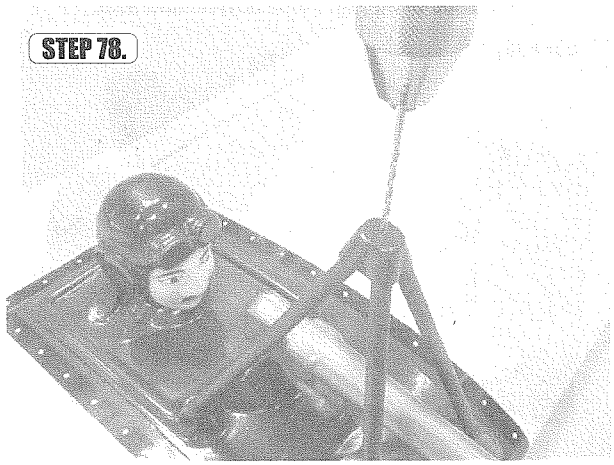
☐ Position the plastic gun and apply epoxy to reinforce it. Glue the pilot on the seat.



☐ Take the silver line and relative hardware.



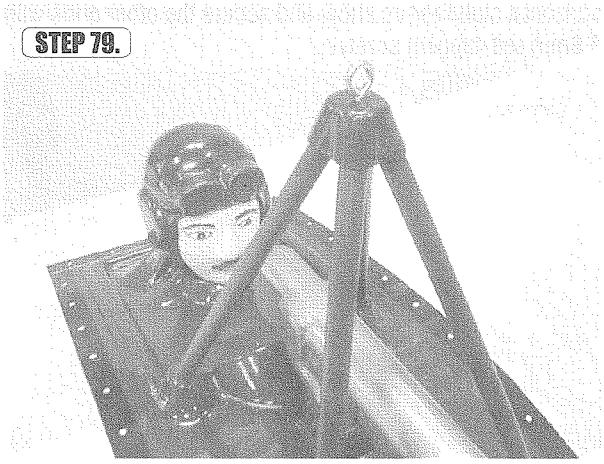
☐ Drill a 1mm hole on the plastic cap.



ASSEMBLING THE SILVER LINE

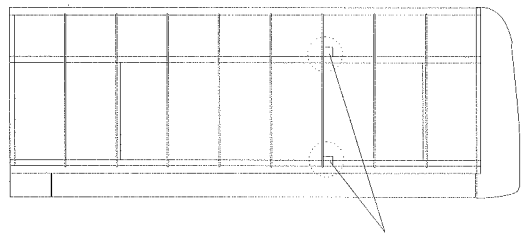
☐ Screw in one hook on the plastic cap.

STEP 79.



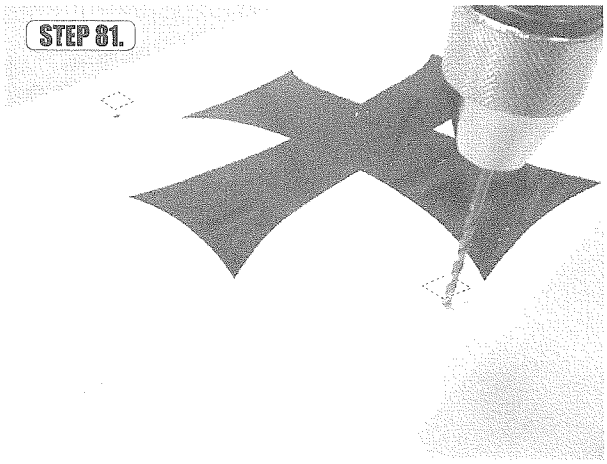
☐ There are four pre-serving blocks inside the main wing for securing the silver lines.

STEP 80.



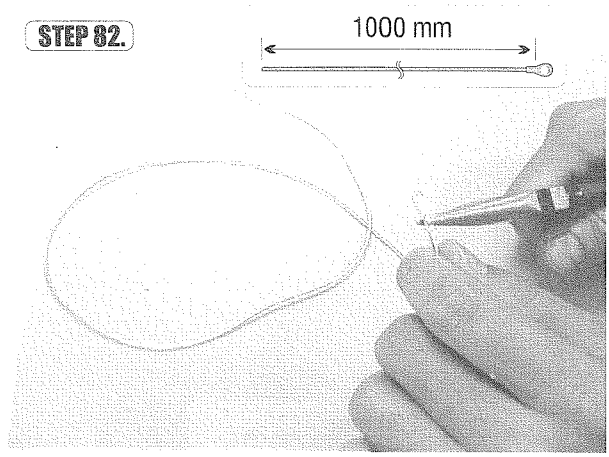
☐ Find the blocks and drill 2mm holes on it.

STEP 81.



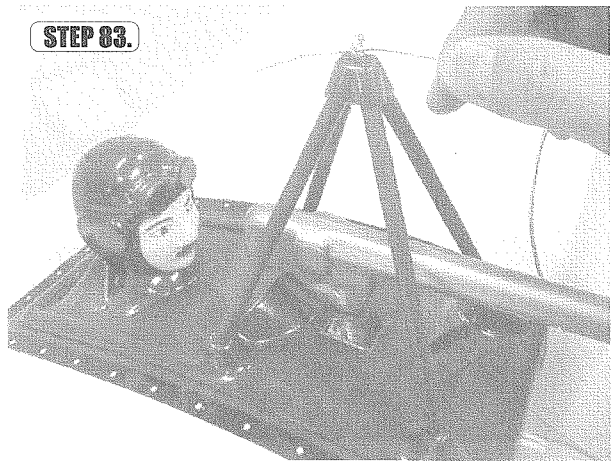
☐ Cut silver line 1000mm (37 3/8") in length.

STEP 82.



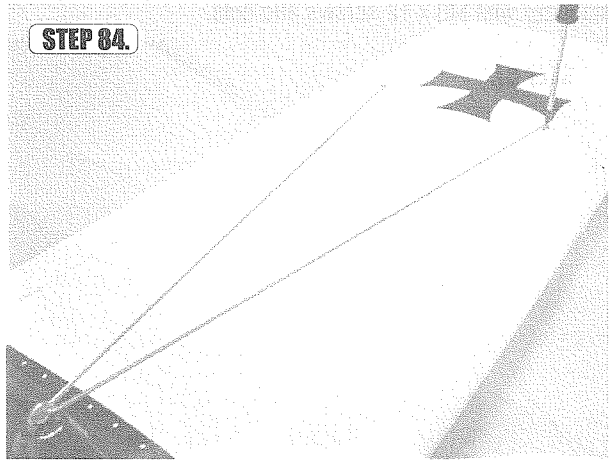
☐ Connect one end of the 1000mm silver line with eyelets and secure on the front block with screw. Insert the other end through the hook of the plastic cap and secure on the rear block with screw.

STEP 83.



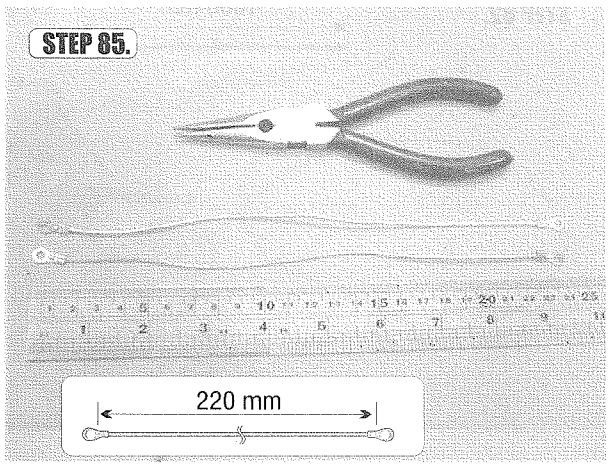
☐ Repeat the procedure for the other silver line.

STEP 84.

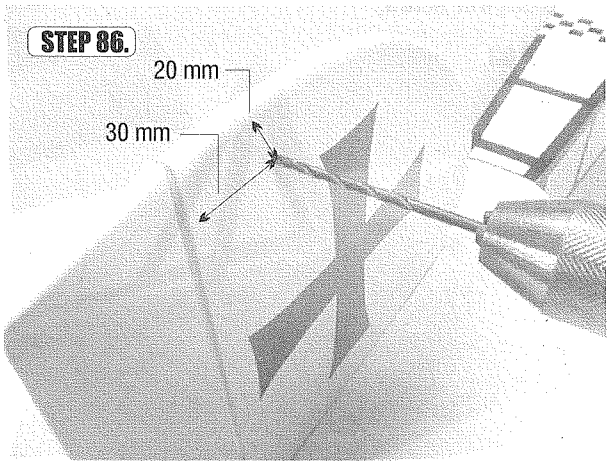


ASSEMBLING THE SILVER LINE & BOLTING WING TO FUSELAGE

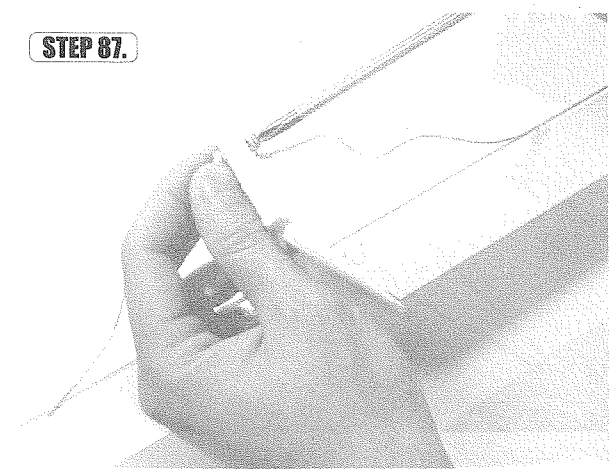
☐ Cut two silver lines 220mm (8 2/3") in length. Connect eyelets to both ends.



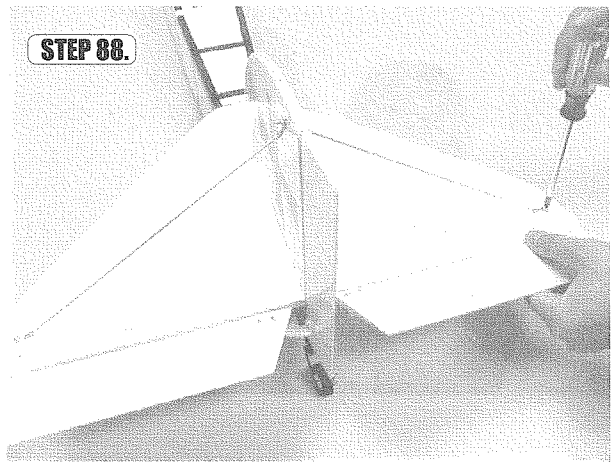
☐ Find the position for securing the two silver lines on vertical stabilizer as shown, drill 3mm holes.



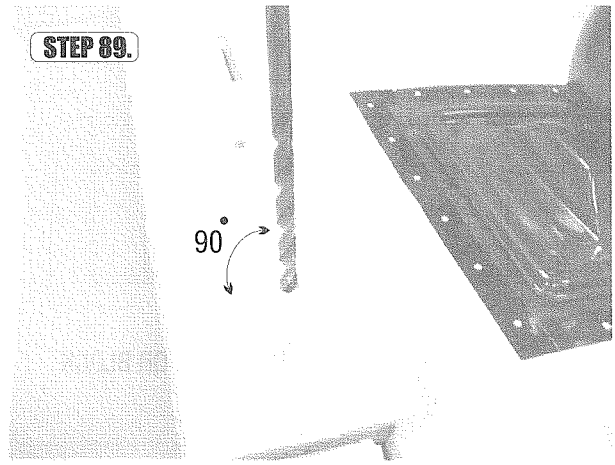
☐ Secure the two silver lines on both two sides of vertical stabilizer with M3 x 12 screws and nuts.



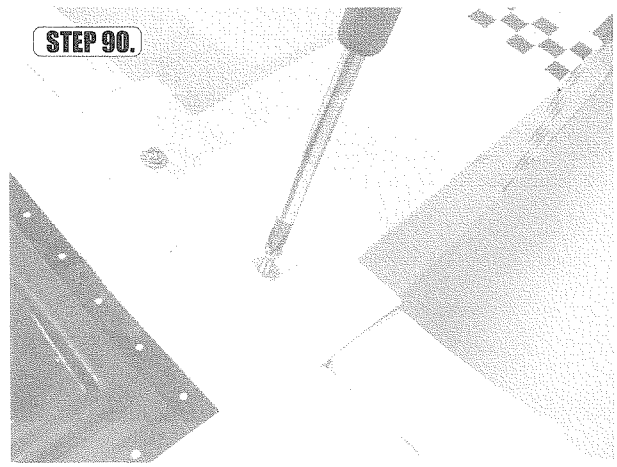
☐ Find the position for securing the two silver lines on horizontal stabilizer as show and secure the other ends with 2.6mm self-tapping screws.



☐ Drill two 4mm holes on the main wing as shown.



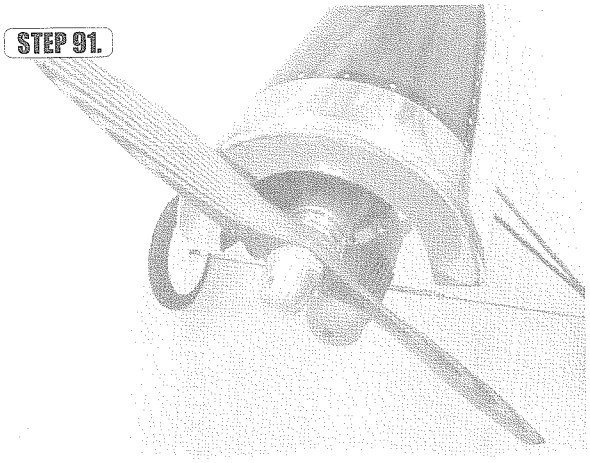
☐ Securing the main wing on the fuselage with M4x40mm screws and 4mm plates.



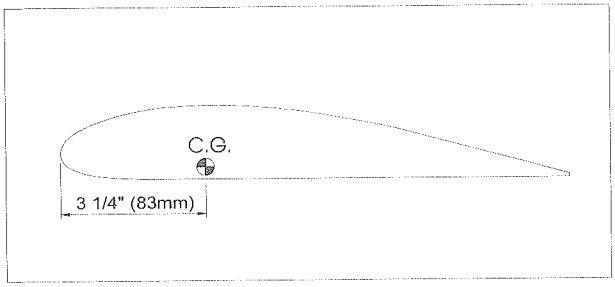
INSTALLING THE SPINNER AND PROPELLER (NOT INCLUDED)

☐ Install the aluminum spinner and propeller (not included).

STEP 91.

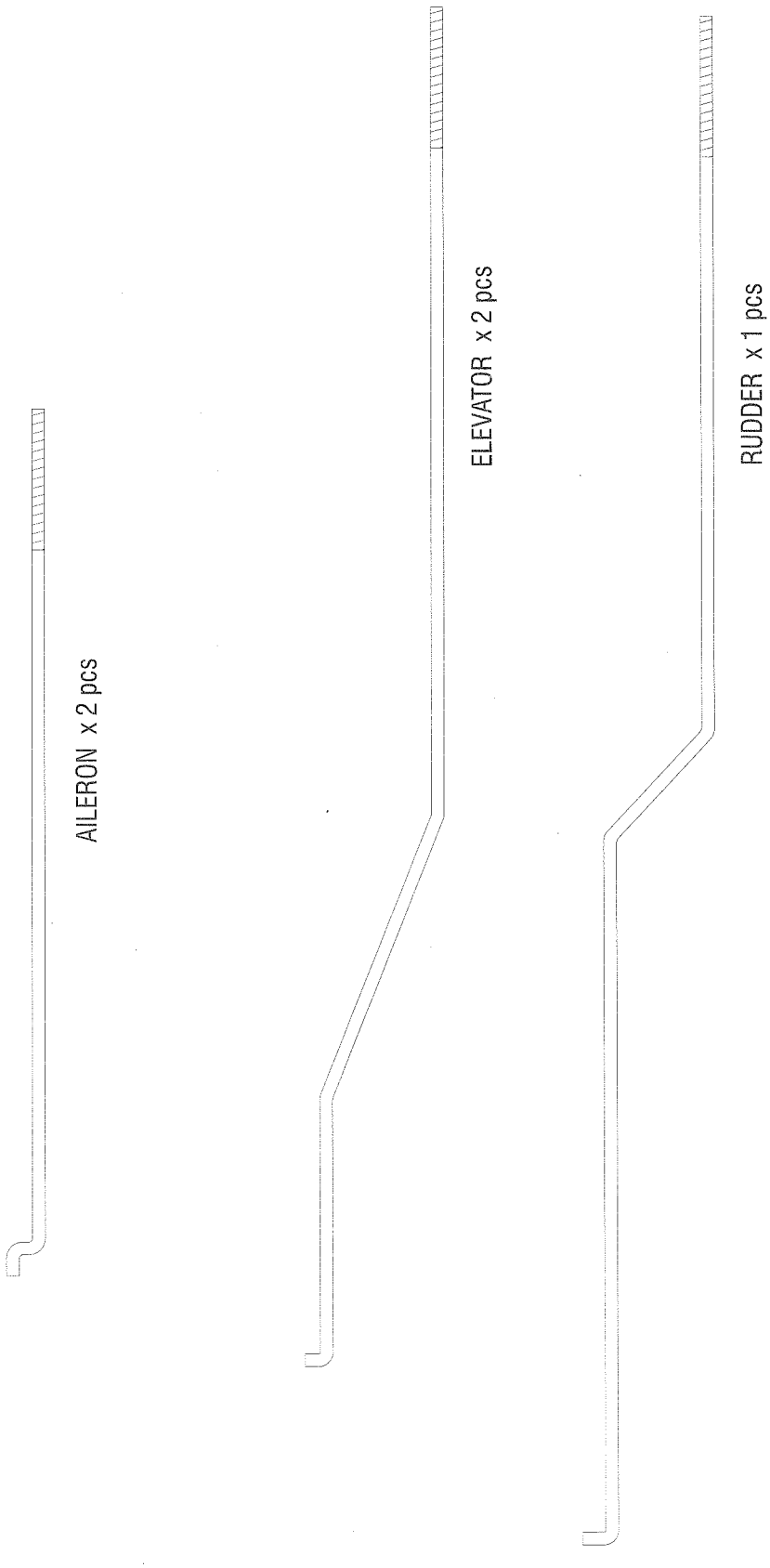


☐ The C.G. is at 83mm (3 1/4") from the leading edge.



NOTE

FULL SCALE OF PUSHRODS



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