ecathlon **FEATURES:** - 1/4 Scale ARF - Light-weight Laser-cut ply and

SPECIFICATIONS:

WING SPAN 98" LENGTH 63" WING AREA 1558 sq. in. FLYING WEIGHT 13-15 lbs. RECOMMENDED ENGINES 90-160 2-stroke glow 120-270 4-stroke glow 23-40cc gas REQUIRED 4 channel radio & 6 servos min. 50 oz.in.



- balsa construction
- Aluminum wing tube
- Covered with Oracover
- Scale red, white and blue starburst graphics
- Painted fiberglass cowl & wheel pants
- Formed tinted windows
- Aluminum landing gear
- Large wheels
- Haige-style steerable scale tail wheel assembly
- Scale wings struts and jury struts
- Large pilot side door
- Complete hardware
- Detailed online assembly manual

WARNING

This radio controlled model is NOT a toy and NOT intended for persons under 16 years old. Keep this kit out of reach of younger children, as it contains parts that could be dangerous. A radio controlled model is capable of causing serious bodily injury and property damage. It is the owners responsibility to assemble the aircraft correctly and properly install the engine, radio and all other equipment. Test fly your finished model in the presence of and with the assistance of an experienced RC flyer. Your model must always be operated and flown using great care and common sense, as well as in accordance with the safety code of the AMA or MAAC. We suggest you join the AMA or MAAC and become properly insured prior to flying this model. Also, contact your local hobby dealer to find an instructer in your area. The Federal Communications Commission requires that you use only this radio frequencies specified for Model Aircraft. Do not at any time fly this model while under the influences of drugs or alcohol.

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Parts You Will Need To Complete Kit

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	Rudder	Orun	(minimum	1///	07	toranal	and	mounting	hardware
1 -	Nuuuci	SCIVU	HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	70	UZ.	wide	anu	mounting	naruwarc

- 1 Large Rudder Servo Arm
- □ 1 or 2 Elevator Servo (minimum 70 oz. torque) and mounting hardware
- □ 2 Aileron Servos (minimum 70 oz. torque) and mounting hardware
- ☐ 1 Throttle Servo (minimum 40 oz. torque) and mounting hardware
- □ 1 or 2 36 inch Elevator Servo Extension
- □ 2 18 inch Aileron Servo Extensions
 - 1 "Y" Extension for Ailerons
- ☐ 1 Engine 2.5 to 4.0 hp: 90-160 2-stroke glow

120-270 4-stroke glow

23-40cc gas

- ☐ 1 Radio Transmitter (minimum 5 channels)
- □ 1 Receiver
- ☐ 1 Receiver Battery
- □ 1 Switch Harness
- 1 3 ½ inch Aluminum Spinner

NOTES: Loctite everything that doesn't need to be removed or adjusted often.

Test fit all T-Nuts to allow bolts to be easily started by hand and avoid cross threads. A striped T-Nut is difficult to replace.

Tail Wheel Assembly Installation

Collect these parts.

- ☐ 1 factory assembled tail wheel bracket
 - 2 wood screws

NOTE: The extra part in the bag (flat bar with 4 holes) is for an alternate method of attachment of the Tail Wheel Springs.



Collect the pre-assembled tail wheel bracket and hardware.

Position the Tail Wheel Assembly over the Fuselage and mark through the holes.

Drill pilot holes and secure the tail wheel assembly to the Fuselage using the supplied hardware (2 \times wood screws).

HINT: Use thin CA to harden all screw holes into wood and balsa after the screw has been threaded in and taken back out.

NOTE: Tail Wheel Springs are installed after the Rudder.



Stabilizer Installation

Collect these parts.

- ☐ 1 stabilizer
- 1 fin



Install the 2 Main Wings using the Aluminum Wing Tube. If it fits too tight use some 600 grit Sand Paper.

Position the Stabilizer over the Fuselage and center it using a ruler and level with the main Wings.

HINT: Use a tape measure or string to make sure the distance from the nose to each Stabilizer tip is the same so that it is aligned square.

Using a scribe or pen, carefully mark along the sides of the Fuselage.





Remove the covering just inside these marks using a sharp Xacto knife.

HINT: Use a small amount of heat from a heat gun when removing any covering.

NOTE: Before gluing the Stabilizer test fit the Rudder. If you see space between the top of the Stab and the Rudder, glue a spacer under the Stab to fill the gap. You may also have to sand the front "key" of the Rudder so it sits all the way down.

Re-position the Stabilizer over the Fuselage and when satisfied with the fit, glue it in place using Epoxy.

Fin Installation



Position the fin over the Fuselage and scribe a mark along the Stabilizer sides.

Remove the covering on the Stabilizer just inside these marks.

Re-position the fin on the Stabilizer and when satisfied with the fit, glue in place using Epoxy. Use a square to hold the fin 90 degrees to the Stabilizer until the Epoxy dries. You may want to tape it in place. NOTE: Wipe away any excess Epoxy using denatured alcohol.



HINT: Use a bead of Canopy Glue to fill joints. It dries clear.

Elevator & Rudder Hinge Installation

Position and glue in place using Epoxy all hinge points into the factory predrilled holes in the 2 Elevator halves. Do not glue them into the Stabilizer or fin at this time.

NOTE: Check that the hinges are operating in the proper direction before the glue dries. You may want to place a small drop of light oil on the hinge pins so the glue will not stick to them.

HINT: Gorilla Glue is also good for gluing hinges because it expands to fill the gaps.

If using engine weighing less than 3 lbs, you may want to position the Elevator Servo on the Servo Tray rather than at the rear of the Fuselage for better balance.

You can use the optional Elevator Joiner if you only want just one Elevator Servo, either on the Servo Tray or at the rear of the Fuselage below the Stabilizer using the appropriate pushrod. Test fit the Elevator halves before gluing the hinges. If they are not in alignment remove and bend the Elevator Joiner.









Rudder Controls

Collect these parts.

- 1 rudder Servo and mounting hardware (minimum 70 oz torque)
- 1 rudder wire cable
- 4 cable crimp fittings
- 4 cable clevises
- ☐ 4 cable clevis nuts
- \Box 2 control horn trumpet bases
 - 1 trumpet screw
- □ 2 trumpet clevises. (black plastic)
- 2 tail wheel steering springs





Using a sharp Xacto knife, remove the covering from the Servo and pull-pull Rudder cable cut outs in both sides of the Fuselage.

Cut the supplied pull-pull cable into 2 equal lengths. You will notice they are very long which will make it much easier to thread through the Fuselage later.

NOTE: Save the scrap pieces if you want to install optional flying wires from the stab to vertical fin on both sides.

Thread the Cable through these new uncovered holes in the rear of the Fuselage. Thread one Crimp Fitting over the end of one Cable, then thread the Cable through the outer hole in the your Large Rudder Servo Arm. Fold back the Cable 1 inch and slide the Crimp Fitting over the Cable end. When satisfied with the fit, crimp the fitting. Repeat for the other end of the Servo Arm with the other Cable.







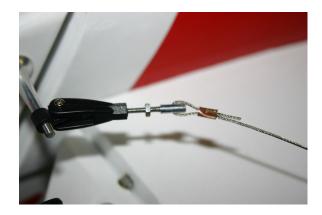
TIP: Use a 3/4 inch piece of 1/8 inch shrink tubing to cover the sharp end of the Cable sticking out of the crimped joint at both ends of the Cable. You will have to slide this on Cable in advance.



Install the Rudder Servo inside the Fuselage using the supplied hardware with your radio in the center position of the Servo rail inside the Fuselage.

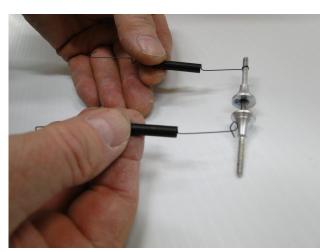
The Rudder has 2 trumpet bases that screw together through the Rudder. Position on trumpet base at the edge of the Rudder beveled edge ³/₄" from the bottom of the Rudder. Mark the spot and drill 3/32" dia. hole through the Rudder. Install the trumpets with the supplies hardware. **Do not over tighten the screws.**

NOTE: Strengthen the holes by applying a few drops of thin CA glue in both holes to reduce the amount of balsa compression.



Thread the pull-pull cable through the cut outs in the sides of the Fuselage and up to the Rudder Servo already installed. Thread all the parts, crimp fitting and clevises as you did to the other end. Temporarily attach the clevises to the Rudder Servos and carefully pull the cable through the clevises until they are pulling on the Rudder. Pull them until they are both equal. When satisfied with the lengths, carefully crimp the cable fittings.

NOTE: You can adjust the lengths later with the threads on the clevises.



Make 2 small loops in the ends of the Tail Wheel Steering Springs and secure them to the ends of the Rudder Control Horns and the Tail Wheel Assembly. Adjusting the tension will help center the Tail Wheel with the Rudder.



Elevator Controls

Collect these parts.

- 2 elevator Servos and mounting hardware (minimum 70oz torque)
- 2 36 inch elevator extension leads
- 2 threaded elevator control rods
- 2 Servo clevises
- \Box 2 control horn trumpet bases
- □ 2 trumpet clevises. (black plastic)
- \Box 2 trumpet washers
- \Box 2 trumpet screws



We will show the standard set-up of installing Elevator Servos on both sides of the Fuselage using the hardware supplied from your radio. You can also mount Servo(s) on the Servo Tray at the front of the Fuselage. You can also use just one Elevator Servo with the optional Elevator Joiner.

You will need to connect 2 x 18 inch Servo leads if you are connecting the 2 Servos to different receiver channels.

Possition the trumpet base at the edge of the Elevator beveled edge 1-1/4" from the Rudder. Mark the spot and drill a 3/32" dia. hole through the Elevator. Install the trumpets using the supplied hardware. Do not over tighten the screws.

NOTE: Strengthen the holes by applying a few drops of CA glue in each hole to reduce the amount of balsa compression.

Install the Elevator connecting rods to the Servo Arms and trumpets.

NOTE: Make sure the Servo Arms exit on opposite sides to ensure the Elevators will travel in the same direction. If you are connecting the same receiver channel you will need a Y Servo extension and one 18 inch extension.



Main Wheel Axel Installation

Collect these parts.

- \Box 2 main landing gear legs
- \Box 2 main wheel axels
- \Box 2 axel nuts
- ☐ 4 axel lock collars





NOTE: You may want to remove any burrs from the axel using a rotary tool so that the wheel collars will easily slide over the axel shaft.

Secure the axel to the main Landing Gear legs using the supplied hardware. Do not over tighten the Axel Nut or it could pull apart.

HINT: Grind flat spots on the end of the axles where the outside lock collar will mount so the set screw can hold stronger.

Wheel Pant Installation

Collect these parts.

- \Box 2 wheel pants
- \Box 4 6-32 T nuts
- \Box 4 6-32 x $\frac{1}{2}$ socket head bolts
- \Box 4 flat washers
- ☐ 4 locking washers

Using a Dremel, ensure the holes in the wheel pants fit the axel nuts.



Line up the wheel pant with the graphics on the Fuselage so that they are parallel and even.

Mark or scribe through the holes in the Landing Gear legs onto the wheel pants.



Drill 2 x 1/8 dia. holes on these marks.

Install the T nuts from inside the wheel pants.

NOTE: It is recommended to apply Epoxy inside the wheel pant behind the plywood insert for extra strength.



Using the supplied hardware, 2 x 6-32 bolts and washers, secure the wheel pants to the gear legs. Make sure these are very tight.

NOTE: Be very careful that you do not cross thread any of the bolts as this may loosen the T nuts.

Install a wheel collar on the axel, then the wheel pant with the wheel inside, add the second wheel collar. This is a bit tricky as they all must be properly positioned together on the axel.

Center the wheel in the pants and tighten the lock collars. Make sure the wheel turns freely.



NOTE: You may need to enlarge the hole in the bottom of the wheel pant for the wheels to turn freely.

Main Landing Gear Installation

Collect these parts.

- ☐ 1 main landing gear legs
- \Box 6 8-32 x 1/2 socket head bolts
- ☐ 6 lock washers
- \Box 6 flat washers

Using a sharp X-Acto knife, carefully remove the covering from the Fuselage where the Landing Gear legs will be inserted through the Fuselage sides.

Insert the gear legs into the Fuselage and secure using 3 x 8-32 bolts and washers.

Tighten the bolts into the treaded holes in the Landing Gear.

NOTES: Be very careful that you do not cross thread any of the bolts.

You may have to enlarge the holes in the Plywood Mounting Plate to allowLanding Gear Bolts to line up with threaded holes in Landing Gear.



Side Door Installation

Collect these parts.

- \Box 2 hinge point
- \Box 1 side door.



Using Epoxy Glue, secure the hinge points into the door frame.

Check for proper direction of the hinge movement. Let the glue dry before inserting the hinges into the Fuselage.

Trial fit the door into the Fuselage. You may need to trim the door for the best fit. When satisfied with the fit and operation, secure the hinges into the Fuselage using Epoxy Glue. Let the hinges dry before opening the door.



Aileron Hinge Installation

Collect these parts.

- 8 hinge point
- \Box 2 ailerons

The Aileron hinges provided are a top quality hinge point. They have been factory drilled and fitted but are not glued in place. You will need to remove them prior to gluing.

Dab a small amount of Epoxy or canopy glue to each hinge and insert them into the Aileron hole until the hinge is just touching against the Aileron. Remember to make sure they are moving in the proper direction.

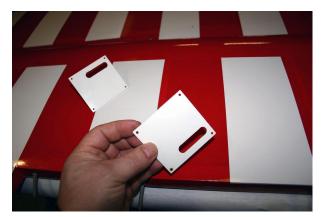
HINT: use a small drop of light oil on the hinge so that the glue does not secure or clog the hinges.

Wait until the glue is dry before gluing the Ailerons into the Wings.

Aileron Servo Installation

Collect these parts.

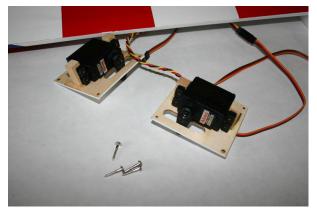
- 2 aileron Servos and mounting hardware (minimum 70oz torque)
- □ 2 18 inch Servo Extensions
- ☐ 2 aileron Servo hatches
- □ 8 small wood screws
- \Box 2 control horn trumpet bases
- \square 2 trumpet screws
- ☐ 2 trumpet clevises (black plastic)



Using a sharp Xacto knife, remove the covering around the Servo Wing cutouts.

Install the Servos onto the factory preinstalled mounting blocks using the hardware supplied with your radio.

NOTE: Add a gusset of Epoxy around the base of each mounting block for extra strength.



Servo



Connect an 18 inch Servo Extension to the Servos and secure the connection with tape.

Using a light string, tie a nut or small weigh to one end and drop it through the Wing ribs openings until it appears in the Aileron Servo opening. Tape or tie the string to the Servo lead and carefully pull it through the Wing.



Secure the Servo and hatch assembly to the Wing using the supplied hardware, 4 x wood screws.

Align the Aileron control rods with the Servo control horns and mark the location of the control trumpets so that the base is at the edge of the Aileron beveled edge.

Drill a 3/32" dia. hole on these marks through the Aileron.

NOTE: Strengthen the hole by applying a few drop s of thin CA glue to reduce the amount of balsa compression.

Secure the trumpet assembly to the Aileron. Do not over tighten the screws.

Connect the control rods to the Servos using the clevises or Z bends.



Wing Strut Assembly

Collect these parts.

^	•	
2 -	maın	wings

- 1 wing tube
- \Box 2 $\frac{1}{4}$ -20 nylon wing bolts
- \Box 2 front wing struts (has slots)
- \Box 2 rear wing struts
- □ 2 factory bent wire inter-plane wing struts
- \Box 2 lower wing cuffs
- \Box 2 upper wing cuffs
- □ 2 lower wing strut/Fuselage mounting brackets
- \Box 4 6-32 x $\frac{1}{2}$ socket head cap bolts
- \square 8 6-32 x $\frac{3}{4}$ socket head cap bolts
- □ 8 inter-plane wing strut aluminum brackets



Slide the Aluminum Wing Tube into the factory installed tube in the Fuselage. Make sure an equal amount of tube is showing on both sides of the Fuselage.

Carefully slide and position the Wings on the Fuselage and secure them to the Fuselage <u>tightly</u> using the supplied ½-20 nylon Wing bolts. You will notice a wooden dowel is provided to align the Wing in the proper position on the Fuselage.



NOTE: When tightening the Wing Bolts do not crush your Servo Extensions between the Wings and Fuselage.



Using a sharp Xacto knife, remove the covering from the Fuselage where the lower Wing Strut will be located.

Install the Wing Strut Bracket into the Fuselage using the supplied 6-32 x $\sqrt[3]{4}$ " bolts. You will notice that the T nuts have been factory installed.

NOTE: Be very careful that you do not cross thread any of the bolts as this may loosen the T nuts.

Insert the bottom of the rear Strut into the slot in the front Strut and bolt together using a 6-32 x ½" bolt and lock nut. You may have to grind the leading edge of the rear Strut to fit properly.

Slide the lower front Wing Strut cuff over the Wing Strut.

NOTE: You may have to trim the Cuffs with a Razor Saw or Dremel for the best fit.





Using the supplied hardware, (6-32 x ½" bolt & locknut), secure the Wing Strut to the Wing Strut bracket. Do not tighten as yet.

Slide the forward top Wing Strut Cuff over the Strut noting its direction and shape.

NOTE: Install the Struts with the airfoil shape facing the proper direction



Secure the Wing Strut assembly to the Wing using the supplied hardware, 6-32 x ³/₄" bolts.

TIPS: You could insert nylon washers between the Struts and Wing surface to reduce the pressure on the covering and balsa.

Use a magnet to help find hidden fasteners if you are having difficulty using the Wire Struts as a guide..

To add some strength to the end of the Struts you could Epoxy wooden plugs into the opening.

Slide the top Wing Strut Cuff over the Bolt and secure it using clear packing tape or equal.

NOTE: You can use clear silicon if you wish a more permanent attachment.

Locate and install the inter-plane Wing Struts Brackets over the wire ends.

Secure the inter-plane Struts to the Wing using the supplied hardware, $6-32 \times \frac{1}{2}$ " bolts and nuts. Some bending may be required.



Engine Installation

Collect the following parts

- engine mounting hardware
 - 2 x engine mounting rails
 - 2 x engine mounting rail adjusters
 - 4 x 8-32x11/4" engine bolts
 - 4 x 8-32 T nuts
 - 4 x 8-32x1" mounting bolts
 - 4 x flat washers
 - 8 x lock washers
 - 4 x 8-32 lock nuts
- fuel lines



Your kit comes with a cowl that is 6 5/8" or 7 3/8" long with the cowl slid over the Fuselage 3/8"-1/2". Measure the distance from the edge of the cowl plus 1/16" to 1/8" clearance for the propeller. This will help calculate where to position your engine on the mounting rails. You may have to make or purchase stand offs, depending on the motor you use.





The engine will have to be positioned on the firewall so that the prop shaft exits the centre of the cowl opening.

It works best to stand up the Fuselage. It can be held that way in a work bench or with the Landing Gear hanging on a step ladders.

Then position the cowl so the stripes line up with the Fuselage. Mark the location of the cowl with tape and gently remove it and mark the position of the engine on the fire wall.

The approximate center line of the prop shaft is 2-3/8" from the top of the firewall and 4-1/8" from the left side of the firewall (looking at the firewall)

Traditional glow engine mount, hardware and fuel tank come complete with this kit.

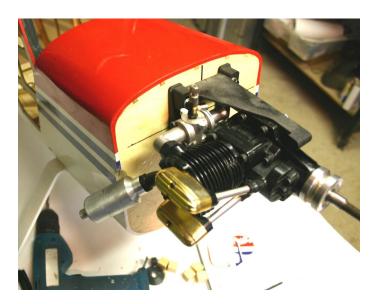
Locate where your engine throttle control rod will exit the firewall and mark it. Drill a large enough hole through the firewall.

We recommend locating the throttle Servo beside the Rudder Servo on the main Servo rail.

Connect the throttle linkage and make sure it is working in the proper direction and operates the carburetor linkage properly.

You may want to also install a linkage to operate the engine choke if your engine is so equipped.

Installing some engines may require cutting away some of the firewall/Fuselage like a Saito 180 engine installation shown below.





It is recommended to reinforce behind the firewall for large cut outs and larger engines.

We recommend using a 3-1/2" aluminum spinner.

Cowl Installation

Collect these parts.

- □ 1 engine cowl
- □ 5 hardwood blocks
 - 5 wood screws



The firewall is angled for the right thrust and down thrust

Locate and Epoxy the 5 hardwood cowl blocks to the Fuselage firewall as shown. You may want to roughen the firewall to ensure a better bond for the Epoxy.

Using a black marker, put a dot in the center of the wood blocks.

Make up some hole locators using card stock or heavy paper. Punch a 1/8 inch hole in one end and center this hole over the black dot on the wood blocks.

Tape the other end of the card to the Fuselage.





Slide the cowl over the engine with the proper clearance for the propeller back plate (about 1/8") and align the side graphics so that they are straight and even.



When satisfied, mark through the holes in the cards onto the cowl. Remove the cowl and drill 5 - 3/32 inch dia. holes.

Cut out the necessary holes in the cowl for the proper engine cooling using a rotary tool like a Dremel.

NOTE: The rule is 2-3 times as much area as the intake area.

When satisfied, secure the cowl to the Fuselage using the supplied hardware. (5 wood screws).



Fuel Tank Installation

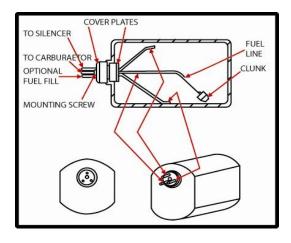
Collect these parts.

- \Box 1 fuel tank assembly
- \Box 1 fuel tank mounting tray

NOTE: Your model airplane is supplied with a Glow fuel tank and hardware kit. If you plan to use a gas engine you will have to change the stopper and fuel lines.



Using the supplied hardware, assemble the fuel tank. Carefully, bend the metal tubing to avoid kinking





Wrap the fuel tank in foam and tape.

NOTE: Remember to mark which tube is for what purpose.

Install the fuel tank on the mounting tray in the Fuselage and secure it to the Fuselage using Velcro straps or tape.

Drill 1/4 inch holes in the firewall for the fuel and vent lines



Top & Side Window Installation

Collect these parts.

- \Box 1 top window
- \Box 2 front side windows
- \Box 2 rear side windows

Using a sharp Xacto knife, carefully remove the covering from the top window opening on the Fuselage. Leave enough covering to fold into opening but not so much as to cover the bottom of the "L" shaped ledge that the window will need to glue to. Use a Covering Iron to seal the folded edge of the covering.

HINT: Save this piece of covering for any future repairs.







Using Canopy Glue carefully add a small bead of glue to the edges of the window.

Be careful not to get any glue on your fingers or the Window.

Place the Windows into their cut outs in the Fuselage and tape in place until the glue is dry.

NOTE: You may want to add weights to hold the top window in place and masking tape on the side windows until the glue dries.



Front Windshield Installation

Collect these parts.

- 1 front windshield
- 6 small wood screws

Position the front windshield over the Fuselage making sure it is even and slightly over the top edge of the Fuselage. It should also fit well along side the front edges of the leading edge of the Wings and flat on the front of the Fuselage.

Using a marker, carefully mark where the screws will go, 3 on each side. Remove the windshield and drill a small hole over these marks. Re-position the windshield and secure it to the Fuselage using the supplied 6 wood screws. Do not over tighten the screws.

NOTE: You may also use canopy glue to secure the windshield. Tape to hold in place until the glue dries.





Radio Set Up

You will need to locate your receiver and batteries on the upper plywood deck.

We used foam wrap and plastic electrical straps to secure our receiver and battery.

You will need a Y Servo Extension to connect the 2 Aileron Servo Extensions if you are connecting to the same receiver channel.

Tip: You will need to balance your model before choosing the location of your batteries.

NOTE: The C of G is on the main Wing spar. 4-1/8" from the leading edge of the Wing nearest the Fuselage.

Control Surface Throws

Rudder +/- 1-1/2" low and 2-1/2" high Elevators +/- 3/4" low and 1-1/4" high Ailerons +/- 3/4" low and 1-1/4" high

Assemble the entire model and make any changes to suit.

HINT: This airplane flies best with some Rudder mixed with Aileron. If you have a programmable radio, we suggest 14%. Also, the Ailerons work best with a 2:1 ratio of Differential, twice as much up as down.

Optional Tail Support Flying Wires

Some of the hardware has been included in your kit to install the optional Flying Wires on the tail of your airplane. These are recommended if you intend to use larger engines (engines over 3.5hp)



Material List

- 8- Clevises
- 8- Metal Straps (pre drilled)
- 8- Rigging Couplers
- 8 Aluminum Crimps
- 3- Bolts with NyLoc Nuts
- 2- Screws
- 1- Cable Wire

Bend each predrilled Metal Strap in the middle to the angle needed to run each of the 4 sections of Cable Wire.

Mark these locations and drill 1/16" holes:

- ³/₄" down fro the top of the fin, 3/8" in from the trailing edge
- 8½" across each side of the Stabilizer from the fin, 3/8" in from the trailing edge
- at the bottom of the Fuselage below the Stabilizer, 3/8" from the rear edge of the Fuselage

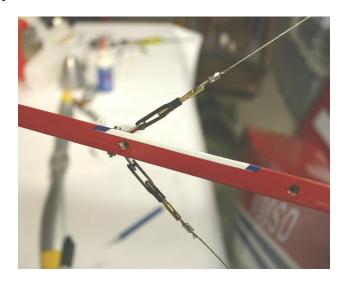
Secure the Straps to the side of the Fuselage with a screw and on the fin and stab with one bolt going through the Strap on each side.

Into each Clevis, thread one of the Rigging Couplers half way into the Clevis, allowing for later adjustment if needed.

Connect a Clevis to each of the holes in the 8 Metal Straps. Looking at this now, you should have 4 pairs of clevises, two on each quarter of the fin, stab setup looking from the rear. 2 clevises will be facing each other on each quarter, top left, top right, bottom left and bottom right.

Measure the 4 lengths allowing an extra 1 to 1½" of Cable on each end for folding over. When you have the Cables cut to length, slide one of the Crimps on one end and feed the Cable through the hole in the Rigging Coupler, fold over about 1" or so and feed back through the Crimp. Push the Crimp against the Rigging Coupler and use a pair of plyers to compress the Aluminum Crimp. Now do the other end the same way. Remember to put an Aluminum Crimp on the Cable first. Before you compress the Aluminum Crimp pull the Cable until the wire is taunt by NOT too much so as to pull the fin and Rudder out of alignment. When you have it just right, compress the Aluminum Crimp the same way.





Do each Cable the same way assuring that the fin and stab are kept in perfect alignment while pulling the Cable taunt.

If the fin and/or stab is out of alignment (pulled too much one side or the other) disconnect the clevis on the short side and unscrew the Rigging Coupler enough to allow the fin to come back into perfect vertical alignment and refasten the clevis. You may have to undo all the clevises while doing this realignment. When all is square and aligned, you're done. You may want to clip off any excess Cable protruding form the Crimps for the sake of appearances.





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