



# INSTRUCTION MANUAL

## SPECIFICATIONS

<b>Wingspan:</b>	26.5 in [675mm]	<b>Length:</b>	29.5 in [750mm]	<b>Battery:</b>	Great Planes 11.1V, 300mAh 20C Competition BP Series LiPo
<b>Wing Area:</b>	382 sq in [24.6dm <sup>2</sup> ]	<b>Motor:</b>	ElectriFly™ RimFire™ 300 (28-22-1380) Brushless	<b>Radio:</b>	6-7 channel minimum with mixing capability, 6 channel micro receiver and four micro servos w/ minimum 19 oz-in of torque
<b>Weight:</b>	9-10 oz [255-285g]	<b>Propeller:</b>	APC 9 x 4.7 (APCQ5010)		
<b>Wing Loading:</b>	3.4-3.8 oz/sq ft [10-12g/dm <sup>2</sup> ]	<b>ESC:</b>	Electrifly™ SS-12		

## WARRANTY

Great Planes® Model Manufacturing Co. guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any component parts damaged by use or modification. **In no case shall Great Planes' liability exceed the original cost of the purchased kit.** Further, Great Planes reserves the right to change or modify this warranty without notice.

In that Great Planes has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

**If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return**

**this kit immediately in new and unused condition to the place of purchase.**

To make a warranty claim send the defective part or item to Hobby Services at the address below:

**Hobby Services**  
3002 N. Apollo Dr. Suite 1  
Champaign IL 61822 USA

Include a letter stating your name, return shipping address, as much contact information as possible (daytime telephone number, fax number, e-mail address), a detailed description of the problem and a photocopy of the purchase receipt. Upon receipt of the package the problem will be evaluated as quickly as possible.

READ THROUGH THIS MANUAL BEFORE STARTING CONSTRUCTION. IT CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.



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airsupport@greatplanes.com

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## INTRODUCTION

The VFO Pogo is one of the most interesting airplanes you may ever fly. Though it may look challenging, a pilot with intermediate flying skills can master this airplane with a little practice. For the latest technical updates or manual corrections to the VFO Pogo visit the Great Planes web site at [www.greatplanes.com](http://www.greatplanes.com). Open the "Airplanes" link, then select the VFO Pogo ARF. If there is new technical information or changes to this model a "tech notice" box will appear in the upper left corner of the page.

### AMA – Academy of Model Aeronautics

If you are not already a member of the AMA, please join! The AMA is the governing body of model aviation and membership provides liability insurance coverage, protects

modelers' rights and interests and is required to fly at most R/C sites.

**Academy of Model Aeronautics** Tele. (800) 435-9262  
5151 East Memorial Drive Fax (765) 741-0057  
Muncie, IN 47302-9252



Or via the Internet at:  
<http://www.modelaircraft.org>

### IMPORTANT!!!

Two of the most important things you can do to preserve the radio controlled aircraft hobby are to avoid flying near full-scale aircraft and avoid flying near or over groups of people.

### FOLLOW THESE IMPORTANT SAFETY PRECAUTIONS PROTECT YOUR MODEL, YOURSELF & OTHERS...

1. Your VFO Pogo should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Because of its performance capabilities, the VFO Pogo, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.
2. You must assemble the model **according to the instructions**. Do not alter or modify the model, as doing so may result in an unsafe or unflyable model. In a few cases the instructions may differ slightly from the photos. In those instances the written instructions should be considered as correct.
3. You must take time to **build straight, true and strong**.
4. You must use an R/C radio system that is in good condition, a correctly sized engine, and other components as specified in this instruction manual. All components must be correctly installed so that the model operates correctly on the ground and in the air. You must check the operation of the model and all components before **every** flight.
5. If you are not an experienced pilot or have not flown this type of model before, we recommend that you get the assistance of an experienced pilot in your R/C club for your first flights. If you're not a member of a club, your local hobby shop has information about clubs in your area whose membership includes experienced pilots.

We, as the kit manufacturer, provide you with a top quality, thoroughly tested kit and instructions, but ultimately the quality and flyability of your finished model depends on how you build it; therefore, we cannot in any way guarantee the performance of your completed model, and no representations are expressed or implied as to the performance or safety of your completed model.

**Remember:** Take your time and follow the instructions to end up with a well-built model that is straight and true.

## DECISIONS YOU MUST MAKE

This is a list of items required to finish the VFO Pogo that may require planning or decision making before starting to build. Order numbers are provided in parentheses.

### Motor, Battery and ESC Recommendations

#### Motor

- The RimFire 300 (GPMG4505) motor provides plenty of power and good flight times. You will also require a 12 amp ESC.

#### Batteries

- Great Planes LiPo 11.1V 300mAh 20C Competition BP Series (GPMP0701)
- Great Planes ElectriFly LiPo 11.1V 640mAh 15C BP Series (GPMP0705)

#### ESC

- The ElectriFly SS 12 (GPMM1810) is the perfect complement to the RimFire 300 motor.

### Propeller

- We tried a few different props and had the best performance with the APC 9 x 4.7 (APCQ5010).

### Radio Equipment

Though the VFO Pogo is basically a four channel airplane, it does require mixing capabilities that you will not find on most four channel radios. For that reason you need a six or seven channel radio with electronic mixes, or the use of "Y" connectors to link the two rudder halves and elevator halves. The choice of radio is dependent on the brand of radio you use and its capabilities. The Futaba® 7C (FUTJ66\*\*) seven channel radio system is the minimum radio requirement within the Futaba line of radios. Other brands may offer you the required mixes in a six channel radio.

With a radio with electronic mixes, you will mix the ailerons and rudder and the ailerons and one additional channel to make the control surfaces work together as four ailerons. You will also need a third mix to mix the rudder and one additional channel to allow the two rudder control surfaces to move together.

- Four Micro servos with at least 19 oz-in of torque – Futaba S3114
- 6 channel micro servo. R606FS 6 channel 2.4GHz (FUTL7635) R1461P 72MHz (FUTL0601)

## Adhesives and Building Supplies

This is the list of hardware and accessories required to finish the Pogo.

- 1 oz. [30g] Pro™ CA Foam Safe CA+Medium glue
- 2 oz. [57g] spray CA activator (GPMR6035)
- #1 Hobby knife (HCAR0105)
- #11 blades (5-pack, HCAR0211)

## IMPORTANT BUILDING NOTES

- When you see the term **test fit** in the instructions, it means that you should first position the part on the assembly **without using any glue**, then slightly modify or *custom fit* the part as necessary for the best fit.
- Whenever the term **glue** is written you should rely upon your experience to decide what type of glue to use. When a specific type of adhesive works best for that step, the instructions will make a recommendation.
- **Photos** and **sketches** are placed **before** the step they refer to. Frequently you can study photos in following steps to get another view of the same parts.

## KIT INSPECTION

Before starting to build, take an inventory of this kit to make sure it is complete, and inspect the parts to make sure they are of acceptable quality. If any parts are missing or are not of acceptable quality, or if you need assistance with assembly, contact **Product Support**. When reporting defective or missing parts, use the part names exactly as they are written in the Kit Contents list.

#### Great Planes Product Support

3002 N Apollo Drive, Suite 1 Ph: (217) 398-8970, ext. 5  
Champaign, IL 61822 Fax: (217) 398-7721

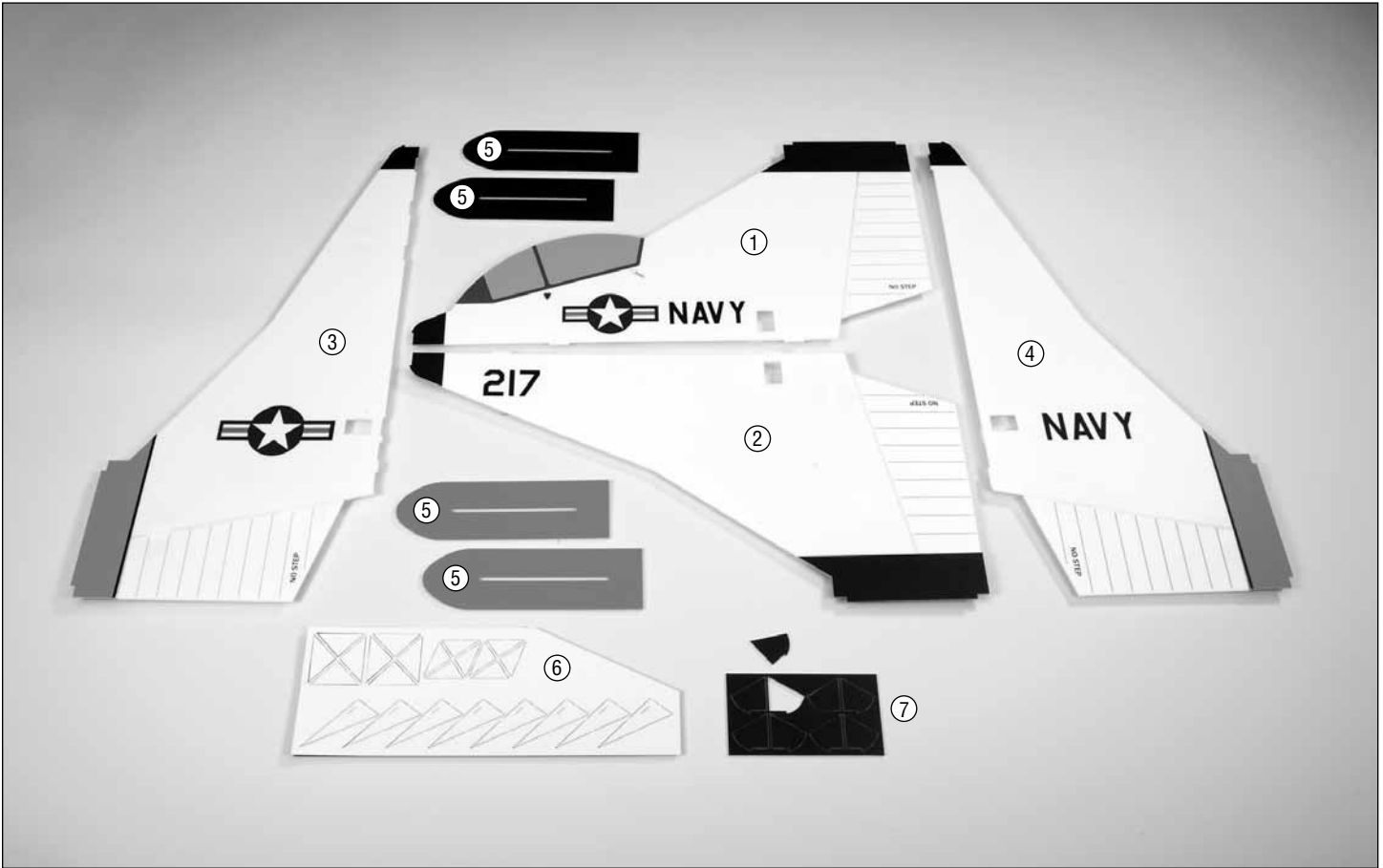
E-mail: [airsupport@greatplanes.com](mailto:airsupport@greatplanes.com)

## ORDERING REPLACEMENT PARTS

Missing parts may be ordered directly from Hobby Services by calling (217) 398-0007, or via facsimile at (217) 398-7721.

If additional assistance is required for any reason contact Product Support by e-mail at [productsupport@greatplanes.com](mailto:productsupport@greatplanes.com), or by telephone at (217) 398-8970.

## KIT CONTENTS

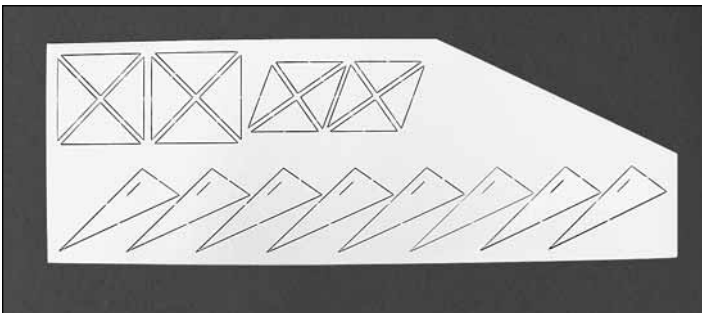


- 1. Fuselage Top
- 2. Fuselage Bottom
- 3. Left Wing
- 4. Right Wing

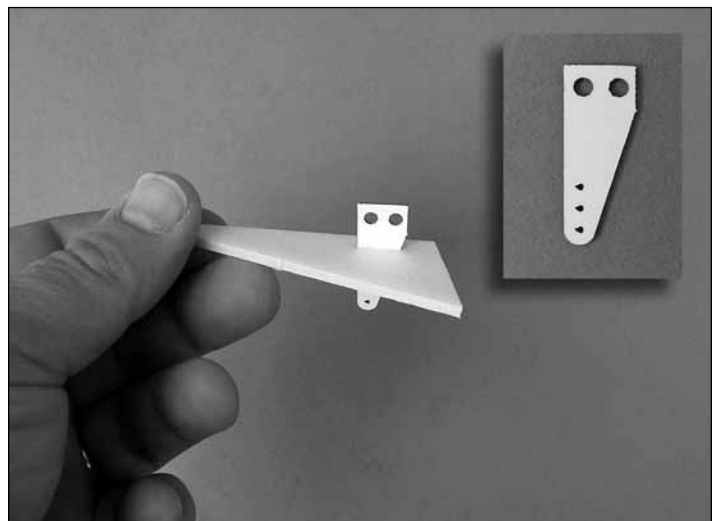
- 5. Pods
- 6. Doubler Sheet (white)
- 7. Doubler Sheet (black)

## ASSEMBLE the FUSELAGE

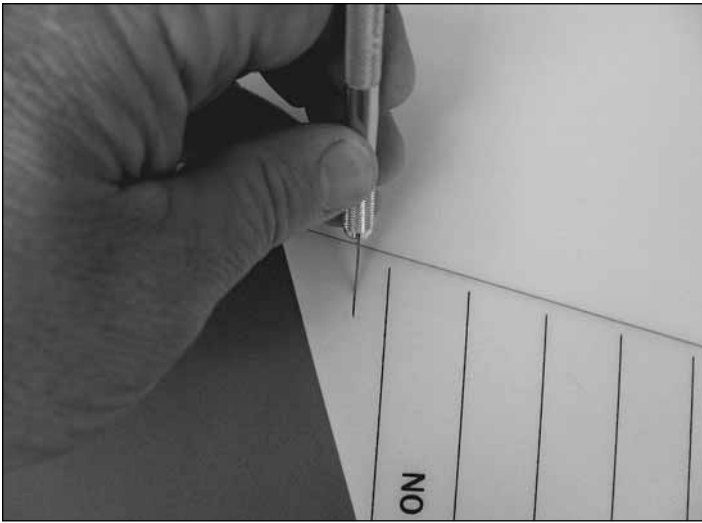
**IMPORTANT!** Throughout the building process you will be instructed to glue parts together with CA glue. *You must use "Foam Safe" CA glue.* If you choose to use a CA activator it too must be "Foam Safe".



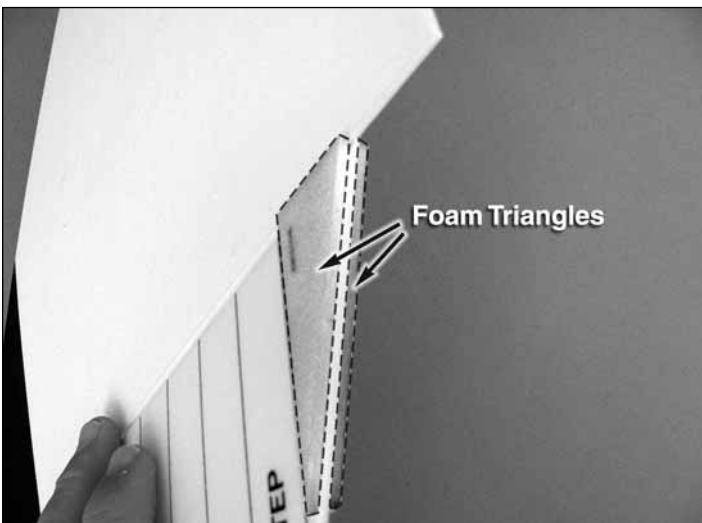
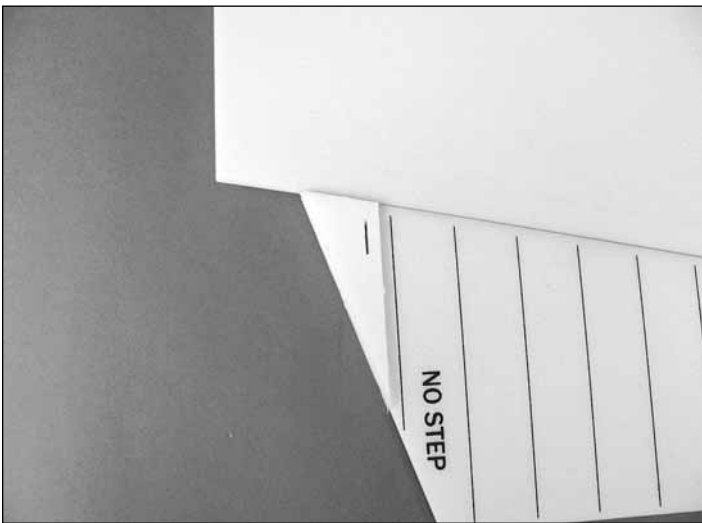
- 1. Remove the long triangles from the foam sheet.



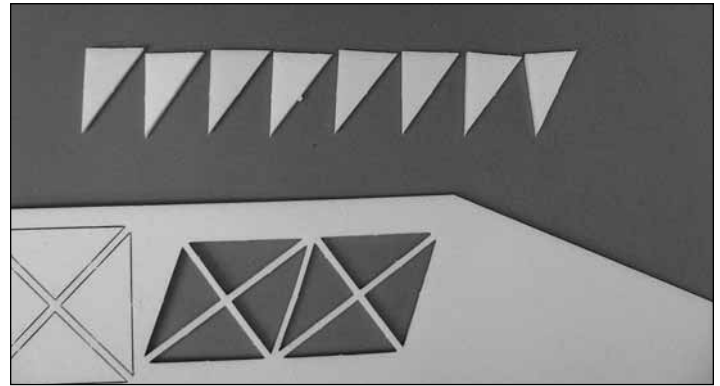
- 2. Locate one of the plywood control horns. Slide the horn into each of the slots in the triangle pieces to open the slot to fit the horn.



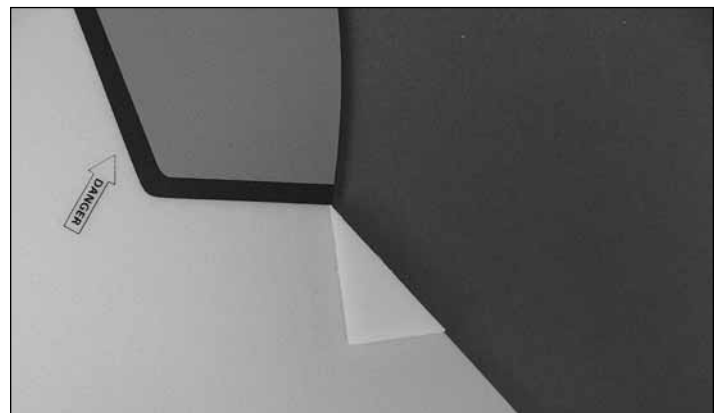
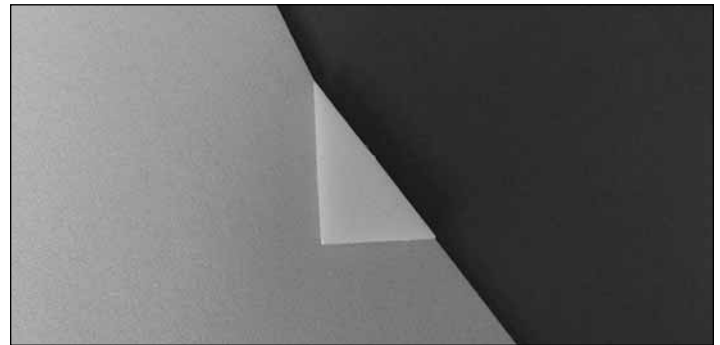
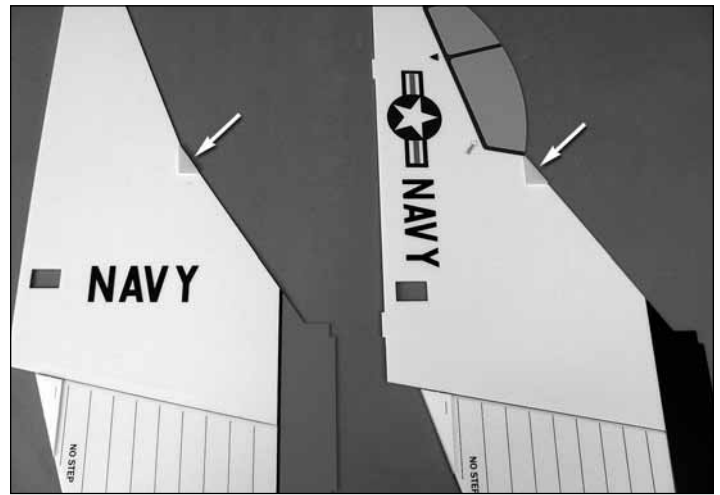
❑ 3. Each of the control surfaces comes pre-taped. The tape partially covers the slot in the control surface. Use a hobby knife to cut the tape that covers the slot.



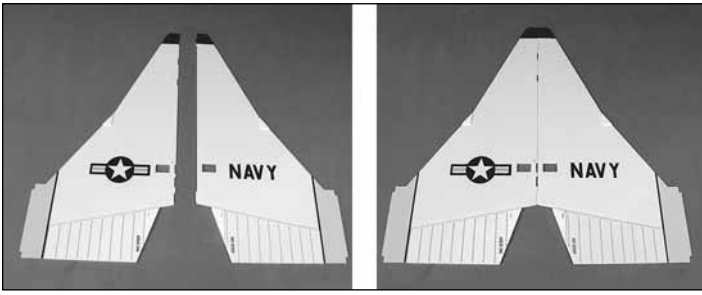
❑ 4. Glue the triangles in place onto both sides of each control surface. Be sure the slots in the triangles align with the slot in each control surface.



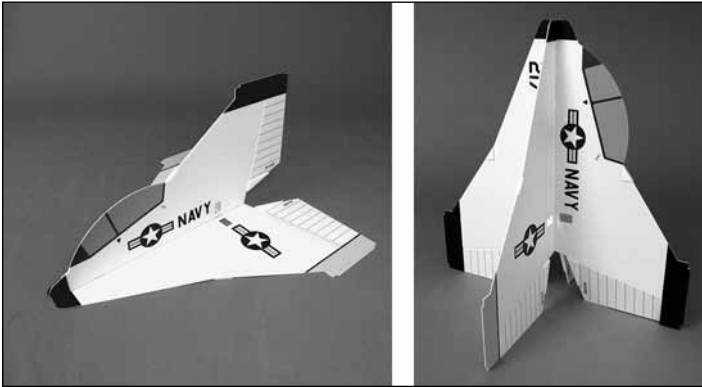
❑ 5. Remove the small triangles from the foam sheet.



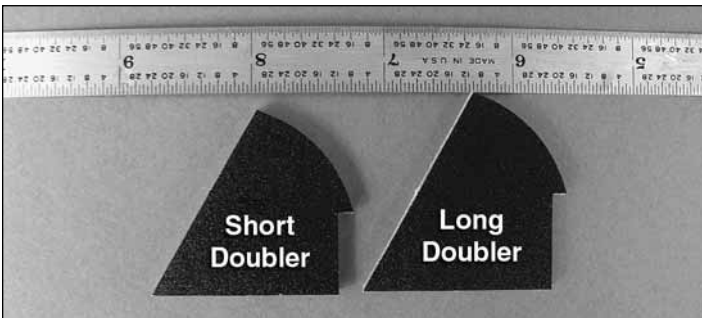
❑ 6. Glue a triangle onto each side of each of the four fuselage parts. The triangle is glued to the trailing edge of the fuselage side where shown.



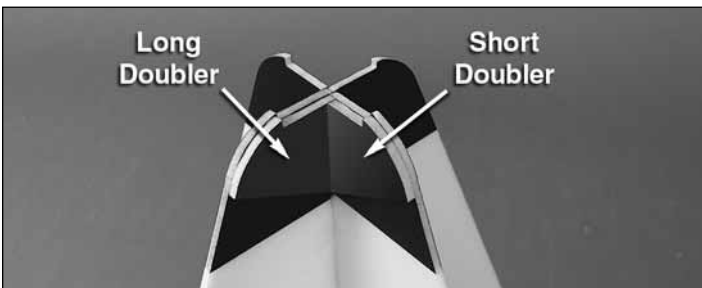
7. Lay the two wing halves side by side and then glue them together with medium or thick CA. Hold the two halves tightly together until the glue has cured.



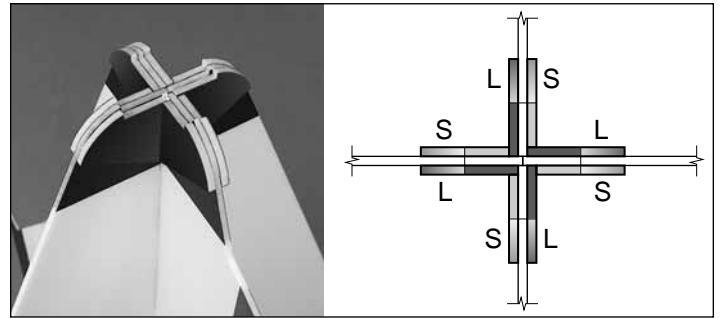
8. Glue the top half of the fuselage to the top of the wing with medium or thick CA. After the glue has cured repeat this step for the bottom half of the fuselage.



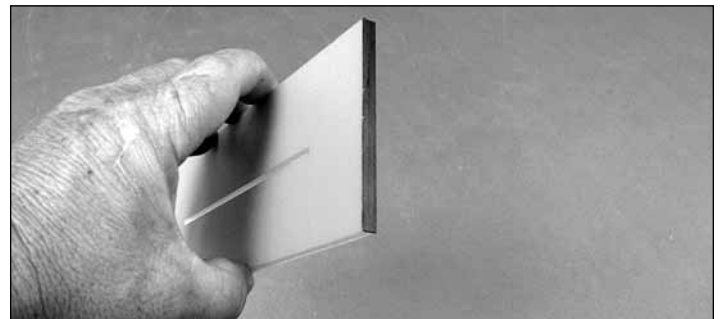
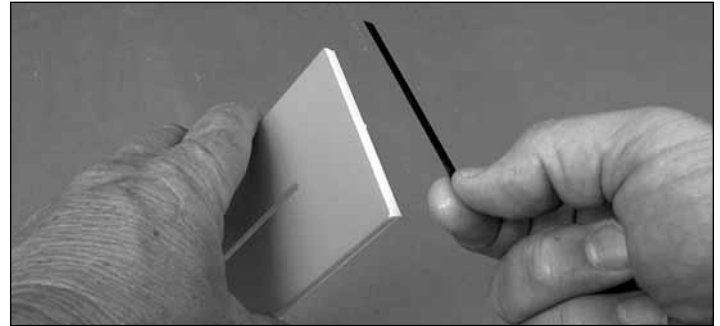
9. Remove the black motor mount doublers from the foam sheet they are attached to. Examine them closely. Four doublers are shorter than the other four. Separate them into four long and four short doublers.



10. Glue one of the long doublers in place on the front of one of the fuselage sides. Glue a shorter doubler to the fuselage side next to it.



11. Repeat step 10 until all of the doublers are glued into place.

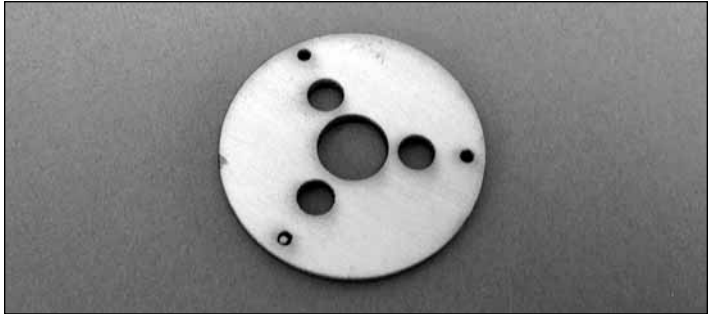


12. Locate four 1/4" x 3" [6mm x 76mm] carbon fiber strips. Glue them to the bottom of each of the orange and black fuselage pods.



13. Glue the orange pods to the orange wing tips and the black pods to the black wing tips.

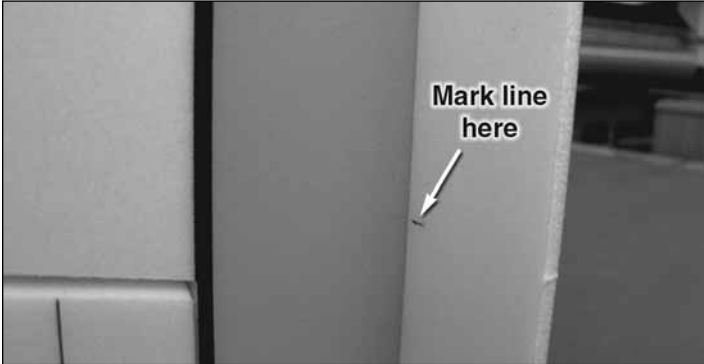
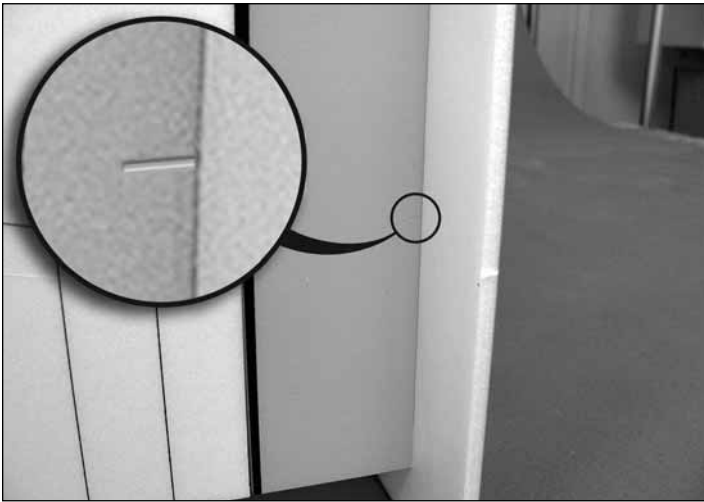
**INSTALL the MOTOR,  
BATTERIES and ESC**



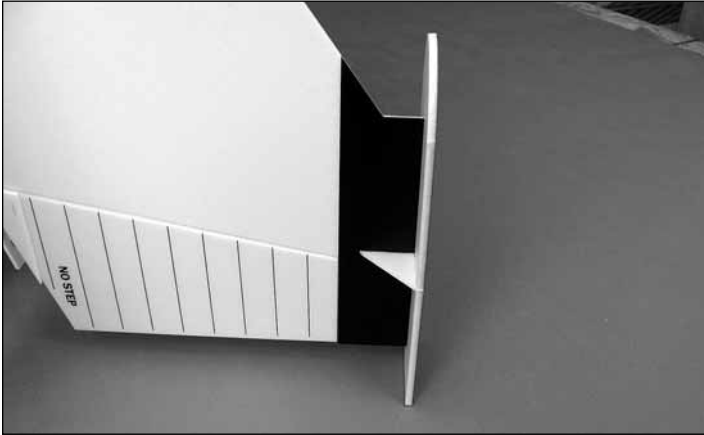
1. Locate the plywood motor mount. Position it on the fuselage so that the top screw mounting hole is in line with the fuselage. Glue the mount to the front of the fuselage.



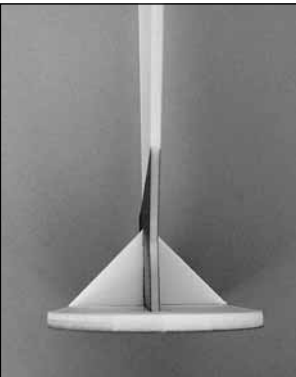
2. Depending on the configuration of your motor you may need to make clearance behind the firewall for the motor shaft. Place your motor on the mount to see if any foam makes contact with any part of the motor. Remove the foam under the mount as needed. This can be done with a high speed motor tool, a drill bit or a soldering iron. If you use a soldering iron, test the temperature of the iron on a foam scrap to be sure the heat is not so hot that you cannot control the rate that the foam melts.



14. Look closely at the orange and black wing tips. There is a very light line embossed. Using that line as a reference, mark a short line onto the back of the pod.

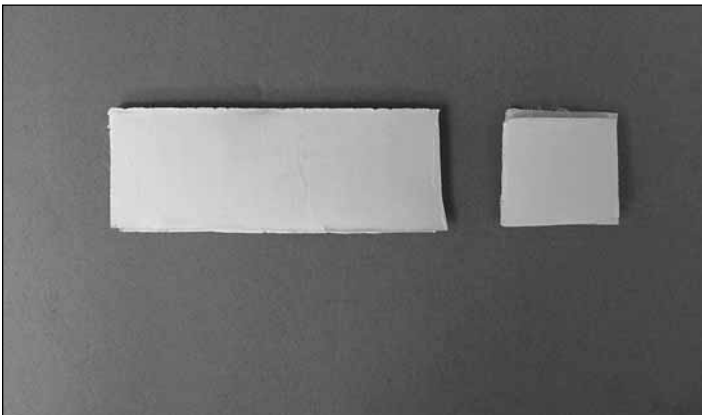


15. Remove the remaining triangles from the foam sheet. Glue one to each side of the wing and pod on the reference lines.

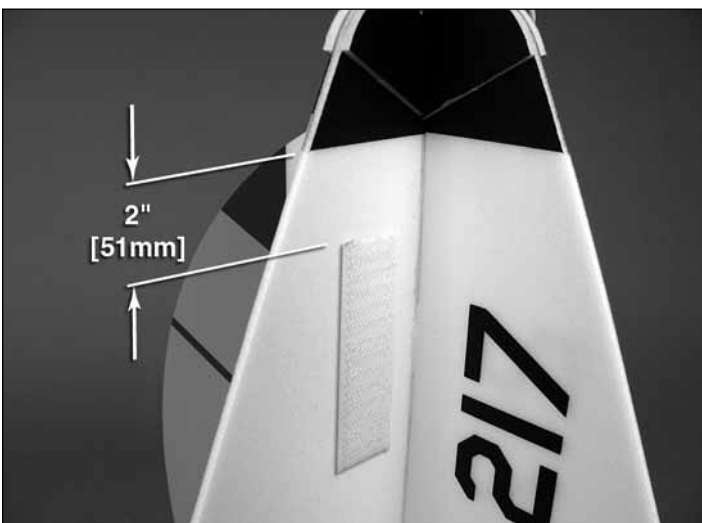




❑ 3. Secure the motor to the mount with three 1/8" x 3/8" [3mm x 10mm] screws.



❑ 4. From one of the two 4" [102mm] Velcro strips, cut 1" [25mm].

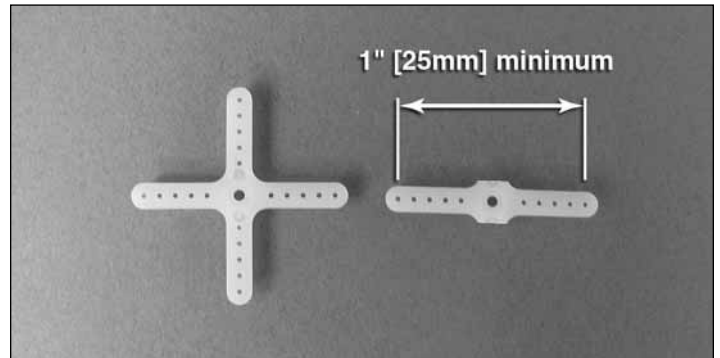


❑ 5. From the larger piece of the Velcro you cut, apply one half of the Velcro so that the top edge of the Velcro is 2" [51mm] below the bottom edge of the painted black nose. The other half of Velcro is applied to the back of your battery. The Velcro secures the battery to the fuselage.

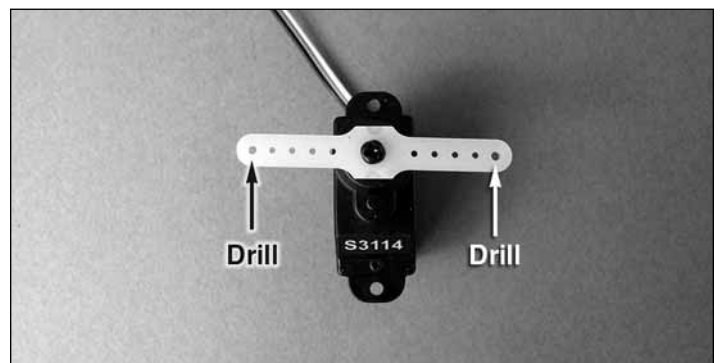


❑ 6. Plug the wires from your motor and ESC together. Apply the 1" [25mm] piece of Velcro to the back of the ESC and then apply it to the fuselage. To keep the wires in place against the fuselage side, you may wish to use a bit of hot melt glue or tape.

**INSTALL the SERVOS, PUSHRODS and CONTROL HORNS**

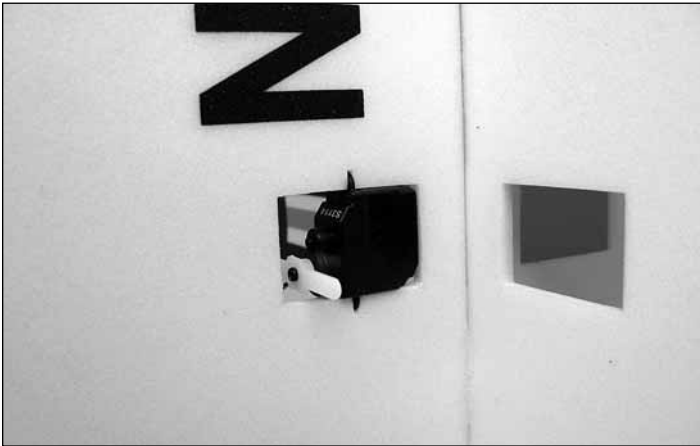
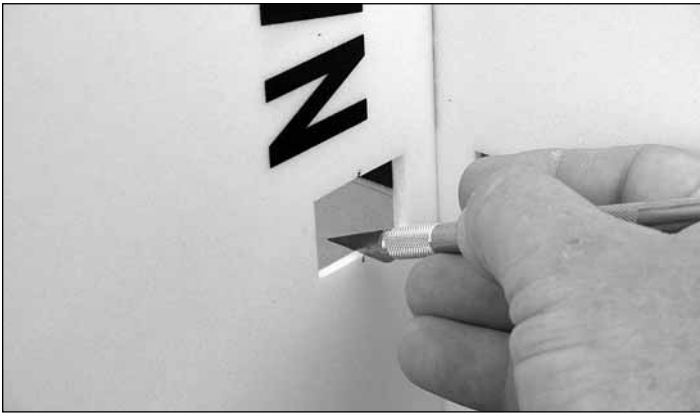


❑ 1. For adequate control movement you will need a minimum 1" [25mm] servo arm.



❑ 2. Center the servo and then install the servo arm onto the servo as shown. Drill out the outer two holes in the control horn with a #57 or .043 drill bit.



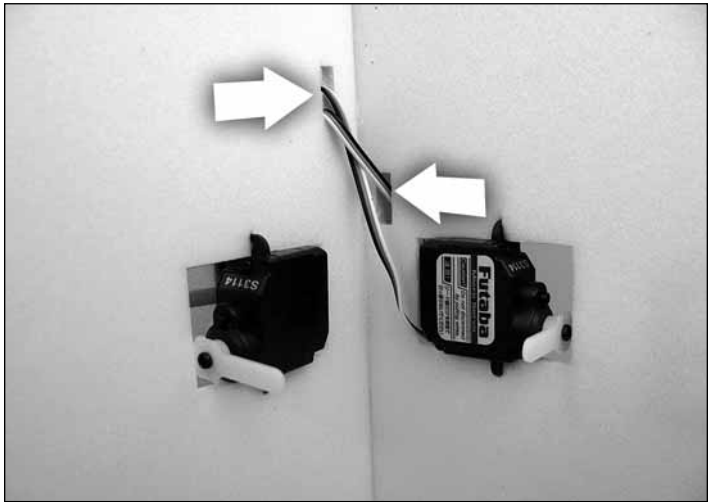


Before proceeding, look at these two pictures to understand the orientation for the servo as it is fit into the servo mounting hole.

□ 3. Position the servo against the servo opening. Make marks on the fuselage where the servo mounting tabs contact the fuselage. Cut the foam on those marks. Slide the servo into the slots you cut. For now, leave the servo in the opening secured only with the friction of the foam. You will permanently mount the servos to the fuselage in a future step.



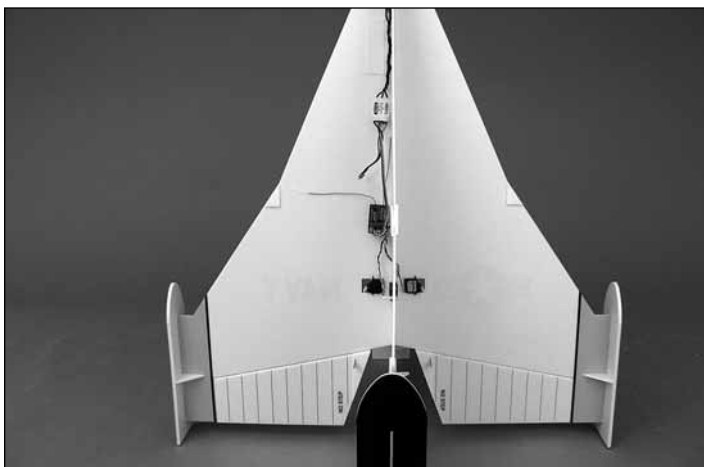
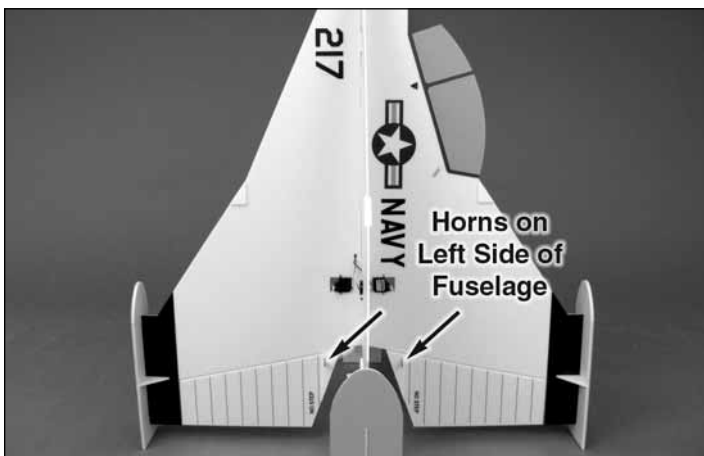
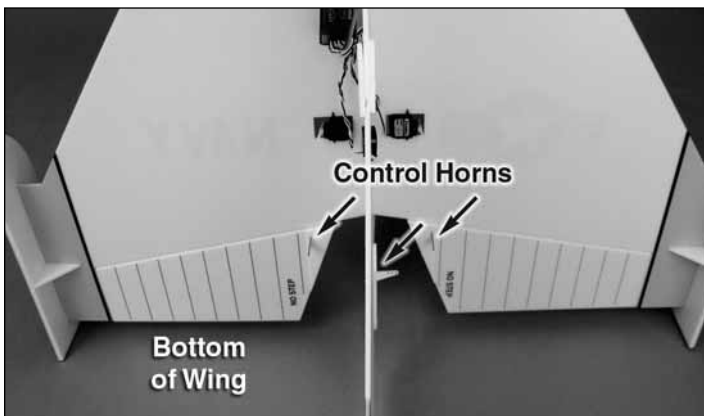
□ □ □ 4. Repeat steps 2 and 3 for the remaining three servos.



□ 5. The servo leads need to be routed to the side of the fuselage where the speed control is mounted. The wires pass through the small square openings in the fuselage.

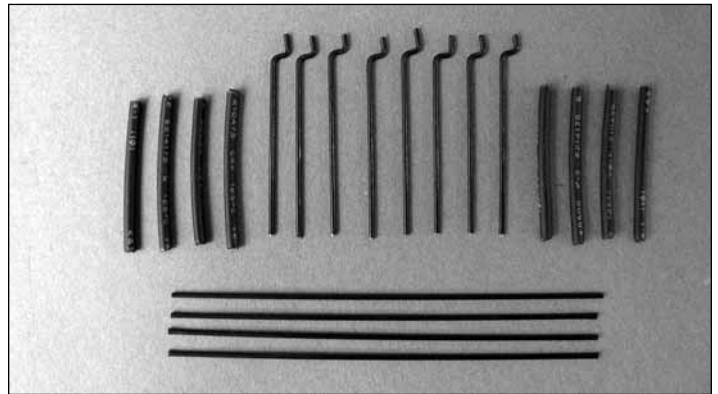


□ 6. From the remaining Velcro, cut a piece large enough to fit your receiver. Install the receiver to the fuselage making sure that you position it so the wire leads from the ESC and the servos can reach the receiver without the use of any servo extensions.

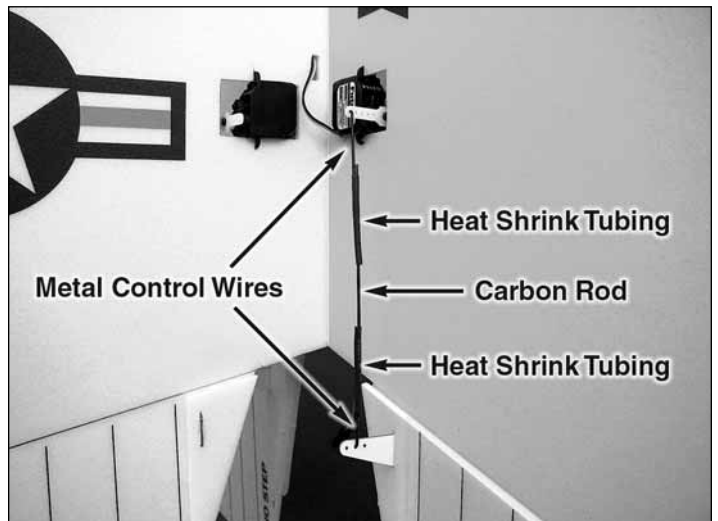


☐ 7. Plug your servos into the appropriate channels and route your receiver antenna.

Before we go any further in the assembly process, you need to set up the mixing required to fly the model. We explain this on page 12, "Mixing Set Up". After you have the radio set up with the correct mixing, proceed with the next step.



☐ 8. The control rods are made up of eight 5/64" [2mm] pre-bent steel wires, four 5/64" [2mm] carbon rods and eight pieces of heat shrink tubing.



☐ 9. With the servo centered, install one of the metal control wires into the outer hole in the servo arm and one in the second hole from the end of the control horn in the control

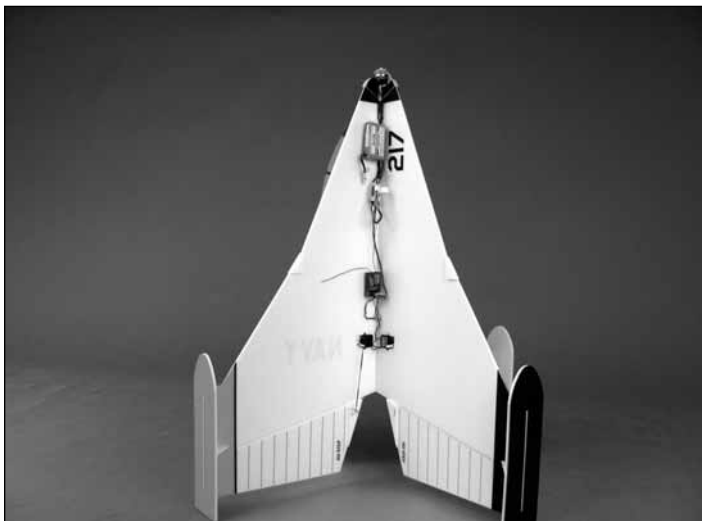
surface. Slip the carbon rod and the heat shrink tubing together to the metal wires. Do this for all four servos. Do not shrink the tubing yet. You will do this in a later step.

- ❑ 10. Turn on the radio system and slowly move the sticks on the radio to be sure that the control surfaces move the correct direction as instructed on page 12, **Mixing Set Up**.



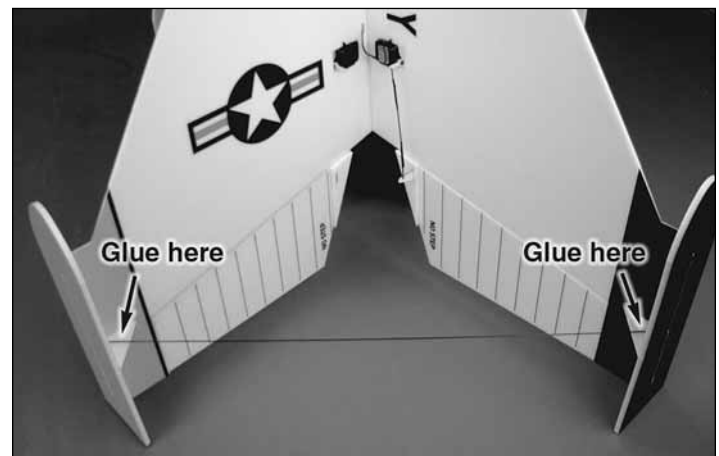
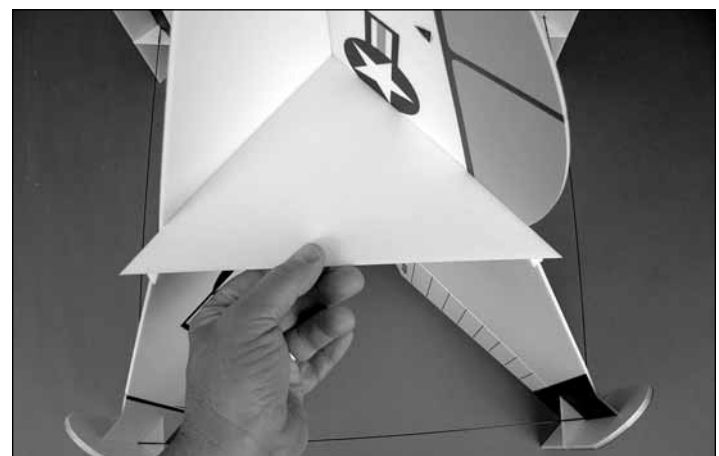
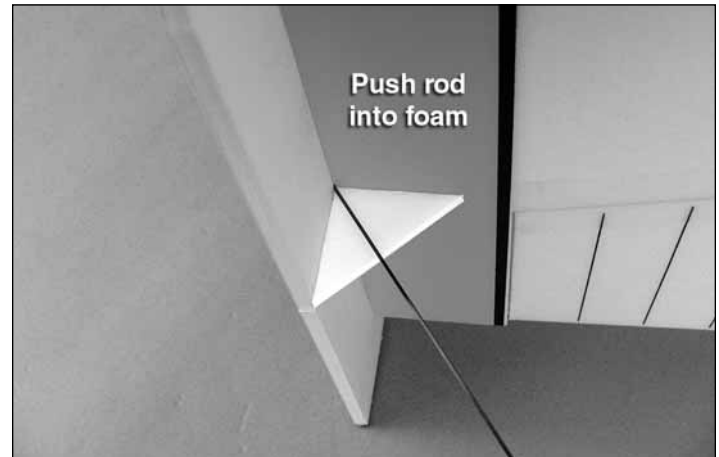
- ❑ 11. With the radio system on and the control surfaces centered, shrink the tubing around the wires with a soldering iron. When shrinking the tube be sure to center the carbon rod between the metal control wires. Do this for all four servos.

- ❑ 12. The last thing remaining is to secure the servos to the foam. For our installation we used CA glue to mount them to the foam. You could also use a low temperature hot melt glue. This will secure them in place but also make it easier to remove the servo. Before gluing the servos in place you may also wish to save some weight by cutting off the unused servo arm from your servos.

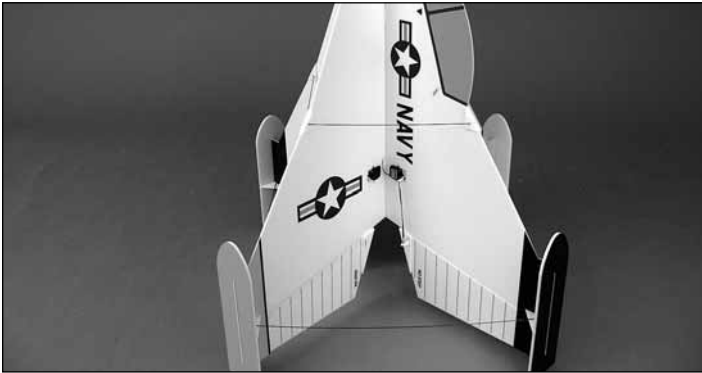


This completes the radio component installation.

## INSTALL the BRACING WIRES



- ❑ 1. Locate the four 1/32" x 19-3/4" [0.8mm x 500mm] carbon rods. These are used to brace and stiffen the fuselage. Press the end of the carbon rod through the surface of the foam but not through the outside skin of the foam. Locate the large foam triangle and then place it against two sides of the fuselage to assure they are perpendicular to each other. Trim the opposite end of the carbon rod so that it is the proper length to allow the end of the carbon rod to be inserted into the foam skin. When you are satisfied that everything is square and the carbon rods are the correct length, glue the carbon rod to the foam.



❑ 2. Glue the 1/32" x 12" [0.8mm x 300mm] carbon rods into the foam doublers using the same method used in step one.

**GET the MODEL READY to FLY**

**Mixing Set Up**

❑ 1. Turn on the transmitter and plug the battery into the receiver. If you followed the assembly instructions your controls should all be centered. If not, see if you can center the trims with your radio. If you cannot, you need to remove the heat shrink tubing from the pushrods and re-adjust the pushrods.

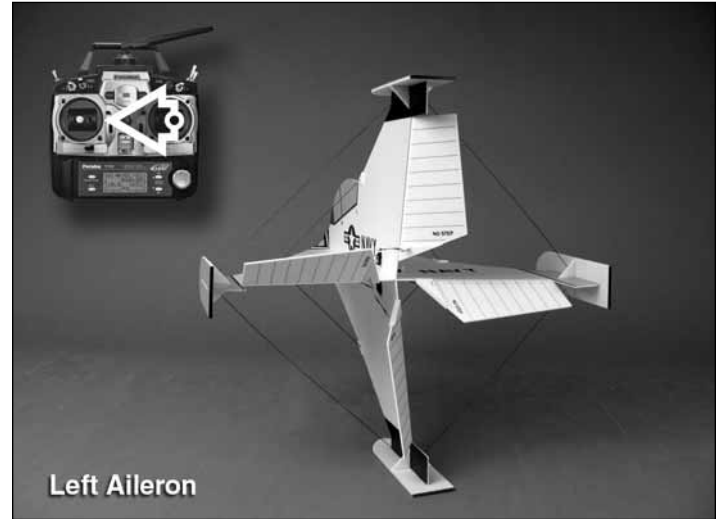
❑ 2. This airplane requires the use of a couple of different mixes. With the large number of different radios on the market it is impossible to provide exact instructions for all of them so we have attempted to give you the basic mixes you will need to set up the VFO Pogo. You will need to refer to the instruction manual for your radio to understand how to achieve the mixes explained here. You will find it helpful to refer to the photographs that follow in the next section.

**Set-up for a six channel radio with limited mixing capability**

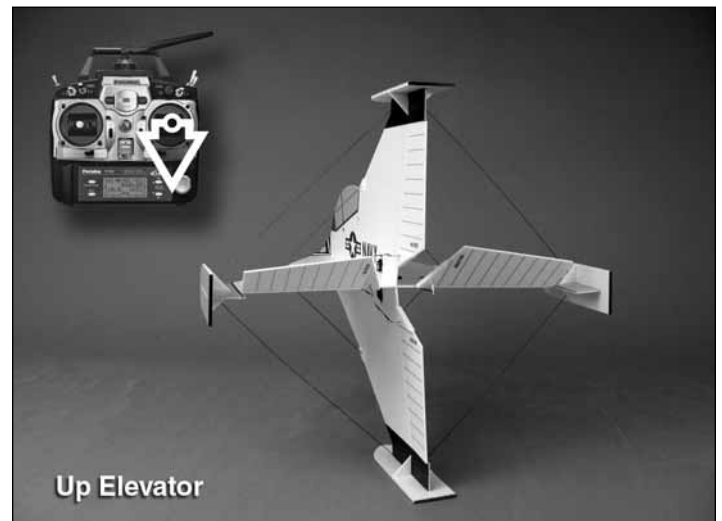
To be able to set the VFO control surfaces using a standard radio, the radio system must have a "flying wing/elevon" type of configuration in the software, meaning it must have a function that has aileron and elevator pre-mixed in the transmitter. This configuration uses two servos to operate both the elevators and ailerons. If you set-up the VFO in this configuration you will need a "Y" harness extension to run the two rudder servos off the rudder port in the receiver.

Activate the function in the transmitter so that the ailerons are working properly and in the correct direction. Check the elevator function in the same manner and adjust the throws in the ATV or similar function in the transmitter.

**Note:** By only utilizing the ailerons in the roll axis, the roll rate will be "slower/softer" than if you mixed the rudder with the ailerons in a transmitter that utilizes multiple mixes.



**Mix #1, "Ailerons"** - All of the control surfaces must move to provide enough roll control for the model. Be sure that all of the surfaces move as shown when operated with your transmitter.



## Set the Control Throws

To ensure a successful first flight, set up your VFO Pogo according to the control throws specified in this manual. The throws have been determined through actual flight testing and accurate record-keeping, allowing the model to perform in the manner in which it was intended. If, after you have become accustomed to the way the VFO Pogo flies, you would like to change the throws to suit your taste, that is fine. However, too much control throw could make the model too responsive and difficult to control, so remember, "more is not always better."

1. Hold a ruler on your workbench against the widest part of the trailing edge of the elevator. Note the measurement on the ruler.

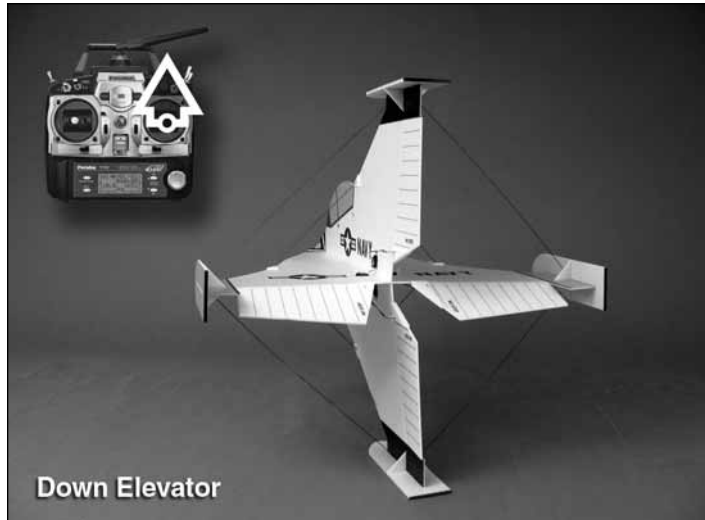


2. Move the elevator up with your transmitter and move the ruler forward so it will remain contacting the trailing edge. The distance the elevator moves up from center is the "up" elevator throw. Measure the down elevator throw the same way.

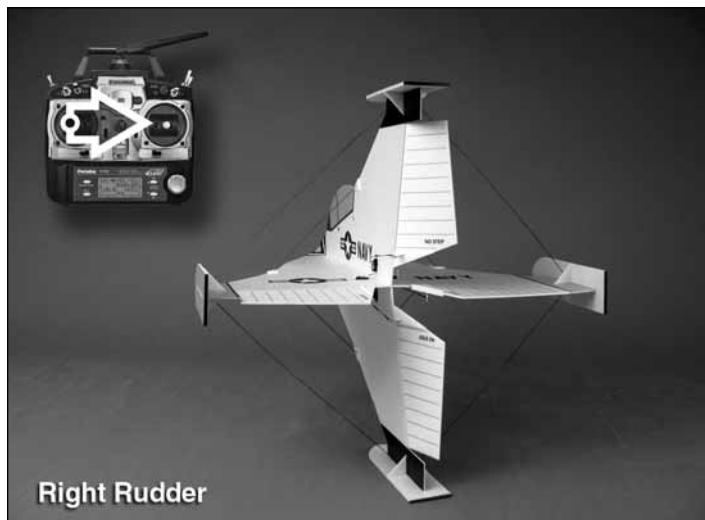
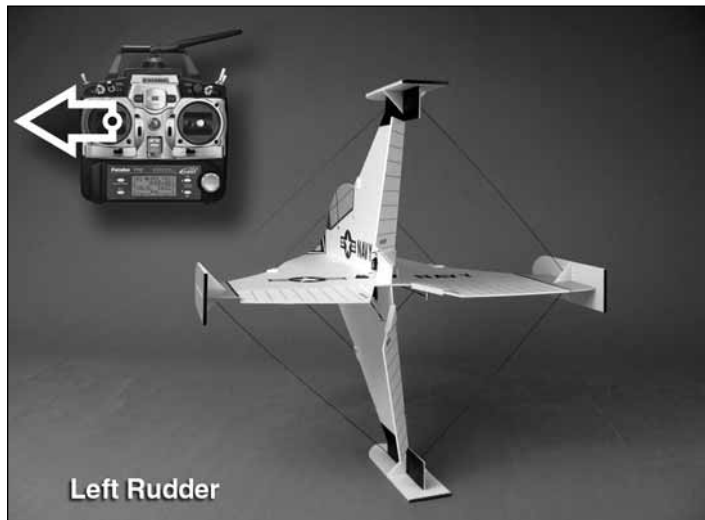
3. If necessary, adjust the ATVs in your transmitter to increase or decrease the throw according to the measurements in the control throws chart.

4. Measure and set the **low rate** elevator throws and the high and low rate throws for the rest of the control surfaces the same way.

**NOTE:** The throws are measured at the **widest part** of the elevators, rudder and ailerons.



**Mix #2, "Elevator"** - The left and right elevator halves must move in the same direction.



**Mix #3, "Rudder"** - The upper and lower rudders need to be mixed so that they move in the same direction. **Option without mixing** - Use a "Y" connector to link the two rudder halves.

These are the recommended control surface throws:				
	HIGH RATE		LOW RATE	
	UP	DOWN	UP	DOWN
ELEVATOR	3-3/4" [95mm] 56 deg	3-3/4" [95mm] 56 deg	3" [76mm] 42 deg	3" [76mm] 42 deg
RUDDER	RIGHT 3-1/2" [89mm] 51 deg	LEFT 3-1/2" [89mm] 51 deg	RIGHT 2-3/4" [70mm] 38 deg	LEFT 2-3/4" [70mm] 38 deg
AILERONS	UP 3" [76mm] 42 deg	DOWN 3" [76mm] 42 deg	UP 2-1/2" [64mm] 34 deg	DOWN 2-1/2" [64mm] 34 deg

We also found that using 40% exponential helped controllability. For Futaba radios this is -40%. On other brands the exponential may need to be +40%. See your radio's instruction manual to determine proper setting.

### ***Install the Propeller***

- 1. Install the propeller to the motor with the "O" ring supplied with the motor.

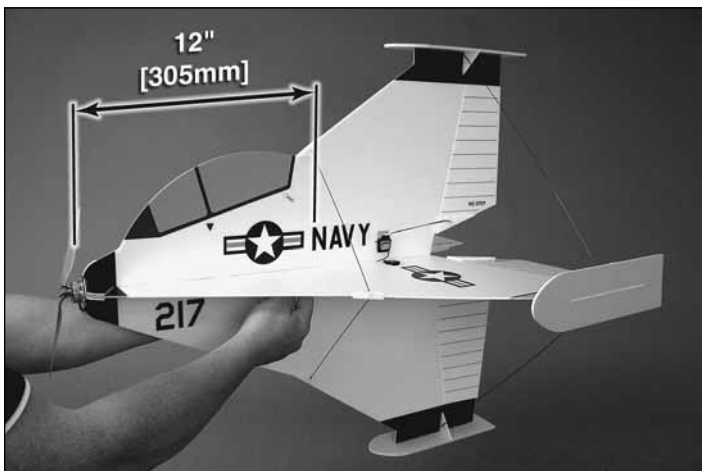
### ***Balance the Model (C.G.)***

More than any other factor, the C.G. (center of gravity/balance point) can have the greatest effect on how a model flies and could determine whether or not your first flight will be successful. If you value your model and wish to enjoy it for many flights, **DO NOT OVERLOOK THIS IMPORTANT PROCEDURE**. A model that is not properly balanced may be unstable and possibly unflyable.

At this stage the model should be in ready-to-fly condition with **all** of the components in place including the complete radio system, motor, battery and prop.

- 1. Use a fine-point felt tip pen to mark lines on the bottom of the wing on both sides of the fuselage 12" [305mm] back from the nose of the fuselage.

This is where your model should balance for the first flights. Later, you may experiment by shifting the C.G. 1/2" [13mm] forward or 1/2" [13mm] back to change the flying characteristics. Moving the C.G. forward will improve the smoothness and stability, but the model will then be less aerobatic (which may be fine for less-experienced pilots). Moving the C.G. aft makes the model more maneuverable and aerobatic for experienced pilots. In any case, **start at the recommended balance point** and do not at any time balance the model outside the specified range.



- 2. With the wing attached to the fuselage, all parts of the model installed including the battery (ready to fly), lift it at the balance point you marked.

- 3. If the tail drops, the model is "tail heavy." Move the battery pack and/or receiver forward to get the model to balance. If the nose drops, the model is "nose heavy." Move the battery pack and/or receiver aft.

- 4. After moving the battery re-check the C.G.

## ***PREFLIGHT***

### ***Identify Your Model***

No matter if you fly at an AMA sanctioned R/C club site or if you fly somewhere on your own, you should always have your name, address, telephone number and AMA number on your model. It is **required** at all AMA R/C club flying sites and AMA sanctioned flying events. Fill out the identification tag on page 16 and place it on your model.

### ***Charge the Batteries***

Follow the battery charging instructions that came with your radio control system to charge the batteries. You should always charge your transmitter and receiver batteries the night before you go flying, and at other times as recommended by the radio manufacturer.

### ***Balance Propellers***



Carefully balance your propeller and spare propellers before you fly. An unbalanced prop can be the single most significant cause of vibration that can damage your model. Not only will engine mounting screws and bolts loosen, possibly with disastrous effect, but vibration may also damage your radio receiver and battery. Vibration can also cause your fuel to foam, which will, in turn, cause your engine to run hot or quit.

We use a Top Flite Precision Magnetic Prop Balancer (TOPQ5700) in the workshop and keep a Great Planes Fingertip Prop Balancer (GPMQ5000) in our flight box.

## Ground Check and Range Check

Always ground check the operational range of your radio before the first flight of the day following the manufacturer's instructions that came with your radio. This should be done once with the motor off and once with the motor running at various speeds. If the control surfaces do not respond correctly, **do not fly!** Find and correct the problem first.

## AMA SAFETY CODE

Read and abide by the following excerpts from the Academy of Model Aeronautics Safety Code. For the complete Safety Code refer to *Model Aviation* magazine, the AMA web site or the Code that came with your AMA license.

### General

1) I will not fly my model aircraft in sanctioned events, air shows, or model flying demonstrations until it has been proven to be airworthy by having been previously, successfully flight tested.

2) I will not fly my model aircraft higher than approximately 400 feet within 3 miles of an airport without notifying the airport operator. I will give right-of-way and avoid flying in the proximity of full-scale aircraft. Where necessary, an observer shall be utilized to supervise flying to avoid having models fly in the proximity of full-scale aircraft.

3) Where established, I will abide by the safety rules for the flying site I use, and I will not willfully and deliberately fly my models in a careless, reckless and/or dangerous manner.

5) I will not fly my model unless it is identified with my name and address or AMA number, on or in the model. Note: This does not apply to models while being flown indoors.

7) I will not operate models with pyrotechnics (any device that explodes, burns, or propels a projectile of any kind).

### Radio Control

1) I will have completed a successful radio equipment ground check before the first flight of a new or repaired model.

2) I will not fly my model aircraft in the presence of spectators until I become a qualified flier, unless assisted by an experienced helper.

3) At all flying sites a straight or curved line(s) must be established in front of which all flying takes place with the other side for spectators. Only personnel involved with flying the aircraft are allowed at or in the front of the flight line. Intentional flying behind the flight line is prohibited.

4) I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission.

5) **I will not knowingly operate my model within three miles of any pre-existing flying site except in accordance with the frequency sharing agreement listed** [in the complete AMA Safety Code].

9) Under no circumstances may a pilot or other person touch a powered model in flight; **nor should any part of the model other than the landing gear, intentionally touch the ground, except while landing.**

## CHECK LIST

During the last few moments of preparation your mind may be elsewhere anticipating the excitement of the first flight. Because of this, you may be more likely to overlook certain checks and procedures that should be performed before the model is flown. To help avoid this, a check list is provided to make sure these important areas are not overlooked. Many are covered in the instruction manual, so where appropriate, refer to the manual for complete instructions. Be sure to check the items off as they are completed (that's why it's called a *check list!*).

- 1. Check the C.G. according to the measurements provided in the manual.
- 2. Be certain the battery and receiver are securely mounted to the fuse.
- 3. Confirm that all controls operate in the correct direction and the throws are set up according to the manual.
- 4. Balance your propeller (and spare propellers).
- 5. Tighten the propeller nut and spinner.
- 6. Place your name, address, AMA number and telephone number on your model.
- 7. If you wish to photograph your model, do so before your first flight.
- 8. Range check your radio when you get to the flying site.

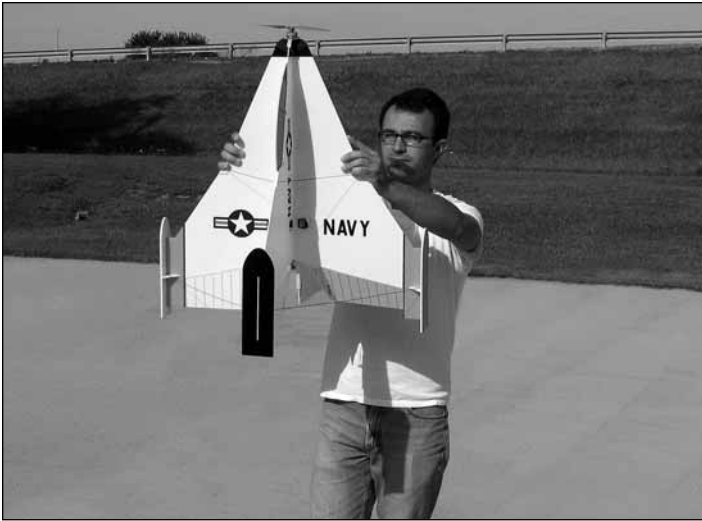
## FLYING

***The Pogo is obviously a different kind of airplane that is going to take a slightly different approach to taking off and landing.***

The following gives you an idea of the best way to achieve a successful first flight of the VFO Pogo. It is important to become familiar with the flight instructions before attempting to fly the Pogo. In addition to these flight instructions we have also posted an instructive video that will explain and show the first flights of the model. Log onto "[www.electrify.com/parkflyers/gpma1135.html](http://www.electrify.com/parkflyers/gpma1135.html)" and review the video. Once you view the video you will see and understand just how easy and fun the airplane can be.

## Trimming the Model

Before attempting your first flight you should trim the model. It is best to do the trimming and flying of the Pogo indoors. If you must do it outdoors there must be very little or no wind. The easiest way to trim the Pogo is with a helper. First, be sure your helper is wearing safety glasses. Have him hold the airplane in both hands as shown on the following page.



Apply the throttle until there is enough power to allow the airplane to hover. Have your helper let go of the airplane but keep the airplane in his hands between his fingers. This way he can quickly grab the airplane if it is out of trim. As the helper releases and again grabs the airplane, observe which way the airplane pitches. You will have to pay attention to the orientation of the model so that you adjust the correct control surface. If the plane is pitching up or down, make adjustment to the elevator. If the airplane is rolling, adjust the ailerons. If it falls to the left or right, adjust the rudder. Continue with these adjustments until the airplane appears to be reasonably close to being trimmed.

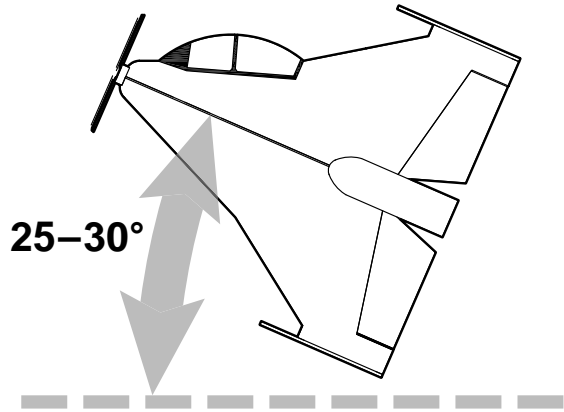
### **Takeoff**

This is the part you have been waiting for. Your natural impulse is to take off slowly to get to hover. This does not work! When you attempt a slow take off the airplane wants to spin from the motor torque and you have to fight this with aileron input. The best way to take off is to quickly pop the Pogo off the ground to about eye level. Once you are hovering three to four feet [0.9–1.2m] off of the ground you need to keep a close eye on what the airplane does. Because of its design it is important to pay close attention to the orientation of the airplane so that you can make the correct adjustments. When hovering or just barely pulling forward, the airplane is quite stable and controllable. If you try to make adjustments and the airplane is descending, you will find that it is a little harder to control. You will be tempted to over control the airplane but the model will stabilize without too much input from you.

Most likely you will want to practice popping the airplane to a three foot [0.9m] hover and then reducing power to settle it back onto the ground to get familiar with Pogo.

### **Transition to Forward Flight**

From the hover, simply apply some down elevator and the Pogo easily goes into forward flight. At this point the airplane flies as any conventional aircraft. The airplane responds pretty quickly so be sure to pay attention to its orientation. In forward flight the Pogo can fly very fast or very slow. It is best to fly the airplane slowly until you get accustomed to it.



To fly the airplane slow you need to keep it pointed up at a 25 to 30 degree angle. As you flatten the angle of attack you will see the airplane really picks up speed.

### **Flight**

Once you are in forward flight the airplane will perform really tight loops, very fast rolls and tight turns with the rudder. You will enjoy flying and then pulling the nose up to slow the airplane and then transition to hover. Just be sure to pay close attention to the orientation of the airplane so you respond with the correct control inputs.

### **Landing**

For your first couple of flights you should begin to practice transitioning from forward flight to hover right away so that you can get the sense of what you will need to do when you land. To initiate the landing fly the airplane slowly at an altitude of three to six feet. When you are in front of yourself pull the nose up and add a little more power so the airplane is hovering. Slowly decrease the power until the plane settles on the ground.

I really encourage you to go to the web site and watch the video. If the old saying, "A picture is worth a thousand words" is true then our video will make it very clear how to succeed with your Pogo.

#### **Remember to think.**

Have a ball! But always stay in control  
and fly in a safe manner.

**GOOD LUCK and GREAT FLYING!**

This model belongs to:				
	Name	Address	City, State, Zip	Phone Number
	AMA Number			