

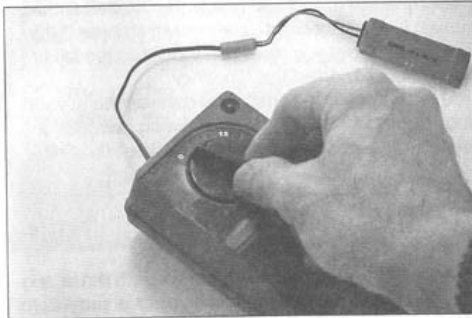


2) Insert 6 "D" size alkaline batteries into the charger, being careful to orient them in the proper direction.



3) Remove the green NiMH flight battery from the aircraft or packaging.

4) Connect the output plug of the charger to the input plug of the battery pack. Notice that the plugs can only be connected in one orientation.



5) Rotate the timer on the charger to approximately 15 minutes.

6) Ensure that the red LED on the charger illuminates, indicating that the battery pack is being charged.

7) After each flight, remove the battery pack from the Skyflyer and allow it to cool before recharging it. Failure to do so will significantly shorten its lifespan.

### **IMPORTANT Battery Information**

1) Never allow the battery pack to become hot during charging - this will cause permanent damage. Warm is okay - hot is not!

2) Never leave a battery pack unattended while it is being charged.

3) Charging times required for a full charge will increase with the number of charge cycles.

4) Never recharge a warm or hot battery. Always allow it to cool to ambient temperature.

5) If you use a different charger, never charge the battery at a rate greater than 500 mA.

6) Do not over charge the battery pack.

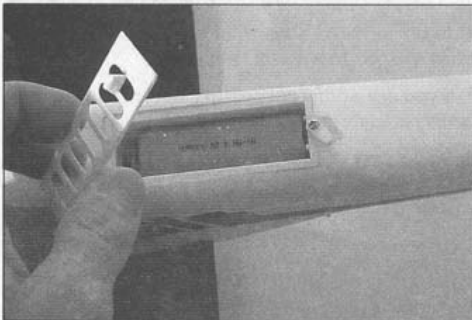
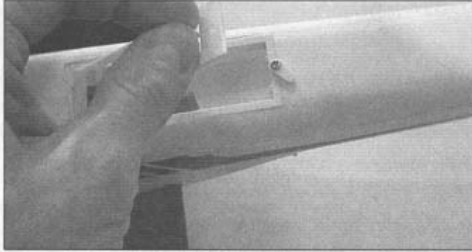
### **Battery Recycling & Disposal**

It may be illegal to dispose of the rechargeable NiMH battery in your municipal waste. Please check with local authorities.

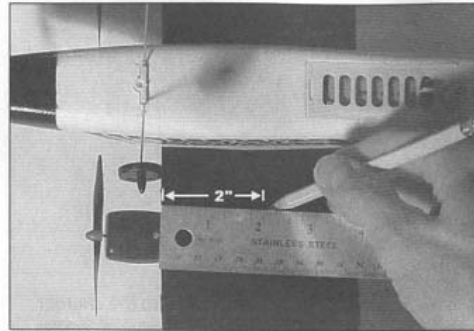
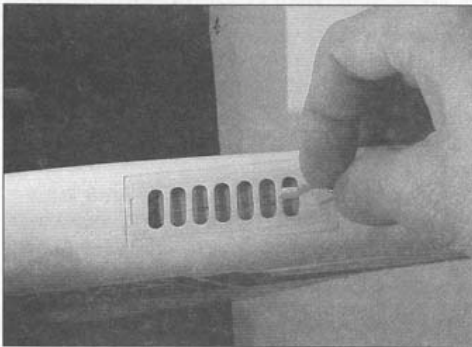
The battery pack contains a chemical known to the State of California to cause birth defects or other reproductive problems. Do not try to open the battery pack!

## Balance the Aircraft

Note:  
this step must be performed or  
your model may not fly properly .



1) Insert the charged battery pack within the battery compartment of the Skyflyer (without plugging the battery in, at this time) and close the battery compartment.



2) Place marks on the underside of the wing, two inches back from the leading edge, near to the fuselage. This is the "Center of Gravity" (COG) of the model.



3) Place your fingertips on these marks and try to balance the aircraft on these points. The aircraft should remain in a level or slightly nose-down attitude. If the nose falls or rises you must add weight to the tail or to the nose to correct this tendency. You can obtain stick-on model aircraft weights at your local hobby store or simply use chewing gum, BBs or pennies attached with double-sided tape.

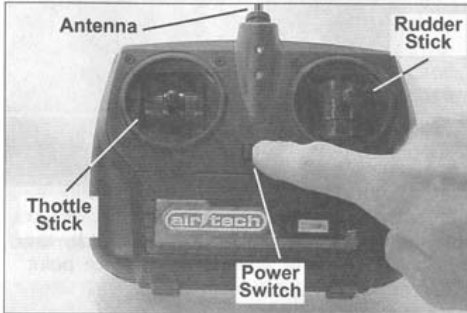
## How the Skyflyer Works

Your Skyflyer uses 3 electric motors for both thrust and steering, thus there are no moving control surfaces to damage or to need adjustment. The aircraft is steered by differential thrust - a fancy way of saying that the aircraft turns while in flight, when one side of it gets more thrust than the other. In order to achieve this differential thrust, one of the steering motors turns off when you want the Skyflyer to turn.

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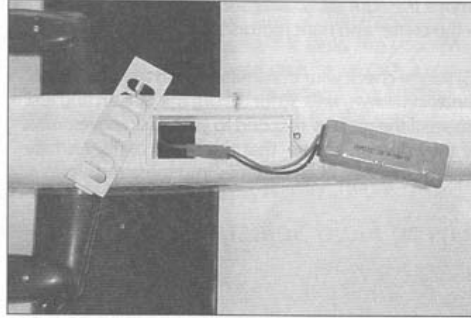
If you want to turn left for instance, the left motor shuts off, leading to more thrust on the right side of the wing and the plane turns to the left! The thrust of the larger central motor while it is on, combined with the thrust of the steering motors, causes the Skyflyer to climb. Cut the thrust and the Skyflyer glides - to a landing if you leave the motors 'off' long enough.



**NOTE:**  
The receiver (aircraft) should never be on while the transmitter is off. If it is, then the receiver may receive stray radio signals causing the motors to switch on and off at random times  
- this can be quite dangerous!

## Preflight Preparation

1) Before turning on your transmitter, make sure that no one in the vicinity is using a radio control model on the same frequency as yourself. The frequency of your model is shown on the tag located at the front of your transmitter.



2) Open the battery hatch located on the underside of the fuselage and plug in a freshly charged battery. Close the battery compartment hatch.

Switch on the transmitter and confirm that the green and red LEDs illuminate. Note: always switch on the transmitter first and turn it off last.



3) Slide the aircraft's power switch located on the left side of the fuselage, forward, to switch the aircraft on.

4) While an assistant holds the Skyflyer , perform the following tests:

*Move the left transmitter stick forward*

- all three motors should run.

*Release the left transmitter stick*

- all 3 motors should stop.

*Move the right transmitter stick to the right*

- the center and left motors should run.

*Move the right transmitter stick to the left*

- the center and right motors should run.

5) Range check your transmitter - with the transmitter antenna down, walk 50 feet from the aircraft and test to see if the motors respond to your stick movements. If they do not, ensure that the NiMH battery is fully charged or put fresh batteries into the transmitter.

## Flying Field Selection and Weather

The Skyflyer is very lightweight and thus you must be very aware of wind conditions when you want to fly it. There should be very little wind other wise loss of aircraft control may result. Note that you will always launch and land your model into the wind. Your flying site should be a large empty and flat area. Avoid places that have many trees, buildings , people or other obstructions. Avoid areas where other R/C models are in operation - your radio transmitter may cause a conflict with them. If this happens, both models will go out of control and crash. Be very careful to keep your model away from people. Though the Skyflyer is lightweight, nevertheless it can cause injury if it hits someone.



## Take-Off

- Enlist the aid of a helper . Have the helper face into the wind and gently hold the aircraft by the fuselage, under the wings at its balance point (Center of Gravity), at about eye level.
- Move the (left) throttle stick on the transmitter forward, so that all engines are turning at their maximum rates.
- Have your assistant run straight ahead with the aircraft pointed into the wind. They will feel it trying to take-off out of their hand. At this point, they should give it a slight push forward. The aircraft should not be thrown forward! This will result in loss of control. The Skyflyer should be brought up to flying speed by running with it and giving it a gentle push forward. Remember that the Skyflyer is a very delicate machine - if you try to violently force it into the air it will almost certainly crash.
- Keep the throttle stick forward, allowing the airplane to climb at a rate of about 20 to 30 degrees to gain altitude and airspeed.

## Flight

To turn the Skyflyer, move (and quickly release) the steering stick in whichever direction you wish the model to turn ( repeat as many times as necessary to turn in the desired direction). DO NOT hold the stick in the turn - it must be pulsed on and off. If you hold the stick without pulsing it, the aircraft will turn sharply and quickly lose altitude. Always use only brief bursts of steering control.

Keep the Skyflyer from getting too far away from you. As it gets farther away, it becomes more and more difficult to determine the model's orientation and direction of flight.

Try to keep the aircraft at a height of several hundred feet so that you have enough time and altitude to react in case you make a mistake. Start learning to fly by flying oval circuits in front of yourself. Concentrate on keeping the plane under constant control and try not to lose too much altitude during the turns. Do not let the aircraft fly over your head - it is very disorienting for beginner pilots to follow the aircraft as it passes overhead and can easily lead to an accident. After you have become proficient at racetrack-style ovals, learn to fly figure-8s. Always keep the aircraft at a safe distance - not so close that it might hit you if you make a piloting mistake, and not so far that it becomes difficult to see.

### Control Reversal

Note that all remote controlled models exhibit control reversal when approaching the ground-based pilot. When the model is moving away from you and you push the steering stick to the left (for instance) the model turns left. However when the model is coming towards you and you push the steering stick to the left, the model appears to turn to the right - this is very confusing for students! Though the model is responding correctly, it appears to be turning in the "wrong" direction. If you look at this from the model's perspective though (imagine yourself in the pilot's seat), the model is in fact still turning left. You must get used to this apparent reversal of controls so that your reactions are instinctive regardless of the direction of the aircraft's flight. In the beginning, it might help to turn your back to the aircraft and look over your shoulder, when it is coming towards you.

### Landing

Your Skyflyer will fly for about 7 minutes on a fully charged battery pack. We suggest that during your first few flights you land before the battery runs out. This will give you some maneuvering ability in case your approach is not quite right.

During your first few flights, try turning off the motors by letting the throttle control stick return to neutral momentarily. This will give you an idea of how the Skyflyer reacts with no power.

When you are ready to land, approach the landing area from downwind so that you are landing into the wind. When you are a couple hundred feet from your landing zone gently line the aircraft up and allow the wings to level out. Turn off the motors - the Skyflyer will start to descend. If it looks like you will land short of the landing area, give the aircraft a couple of short burst of power to extend the landing angle.

As the aircraft descends, use brief bursts of steering control (right stick) to control direction. The aircraft will almost land itself.

### After the Flight

Switch off your aircraft, and then switch off your transmitter. Open the battery compartment and remove the battery pack. Allow it to cool to room temperature. This is very important. The battery will be quite warm after it's rapid discharge during the flight and if you charge it immediately, before allowing it to cool, you will damage the battery. Check the plane thoroughly for any damage and be sure to repair anything that might need to be repaired prior to flying again.

### Repairs

The Skyflyer is very rugged but of course can be damaged if overly abused. This can happen to even the best pilot. Don't despair if something needs to be repaired - this is a necessary part of the model aircraft experience and in most cases repairs are easy to accomplish. If there are cracks or breaks in the wing or fuselage apply 5-minute epoxy or white glue to the broken areas. Hold the parts together with clear packing tape and allow the glue to cure. You can leave the tape in place for added strength. In some cases, strong tape alone, will be enough to make the aircraft flight-capable again. Note: cyanoacrylate (i.e. Krazy Glue) will melt the foam of the Skyflyer.

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UM-13201-20007