

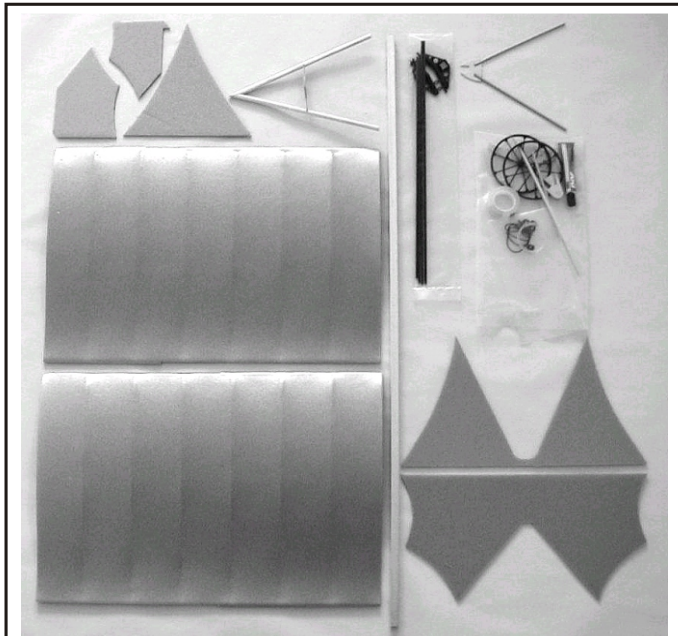
Demoiselle Instruction

The Ikarus Demoiselle Slow or Park Flyer recalls the Golden Age of Flight from the early part of this century. Simple structures with simple but effective control surfaces plus clean, safe electric power help bring the Demoiselle to life in the hands of even relatively inexperienced model pilots. The Demoiselle is an innovative, lightweight 2-3 channel electric Slow Flyer and takes advantage of the latest developments in moulding technology and aerodynamics. Demoiselle is so docile (flies at a fast walking pace) that even a novice can look like a seasoned pilot. If built as per the instructions, the Demoiselle can easily be assembled in a very short time. You need only a few simple tools, nicad, charger, motor/gearbox/prop assembly plus some cyanoacrylate and epoxy glues.

Assembly



Carefully cut out the pilot figure along the dotted lines indicated in the diagram.



Demoiselle kit contents



Make a small hole in the pilot figure's left and right side as illustrated. The axle shaft passes through this hole.



Nicad pack part no 160607



Speed controller, micro receiver, micro servos



Motor/gearbox/prop assembly part no 160611

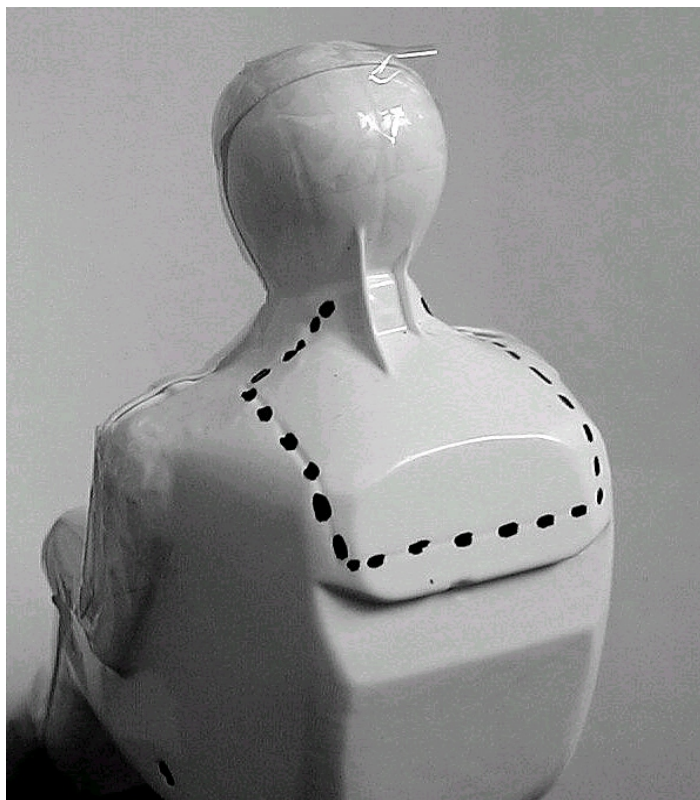


Cyanoacrylate glue, epoxy glue



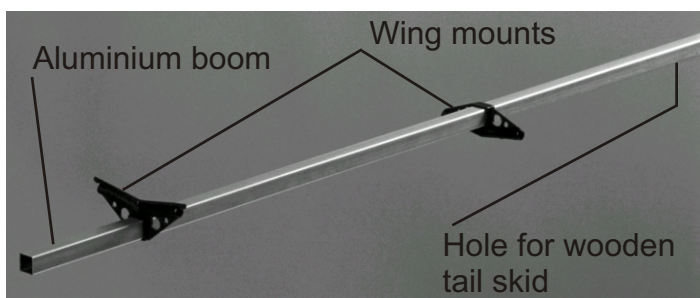
Household scissors, sharp knife, pliers

Additional items needed (not included in kit)

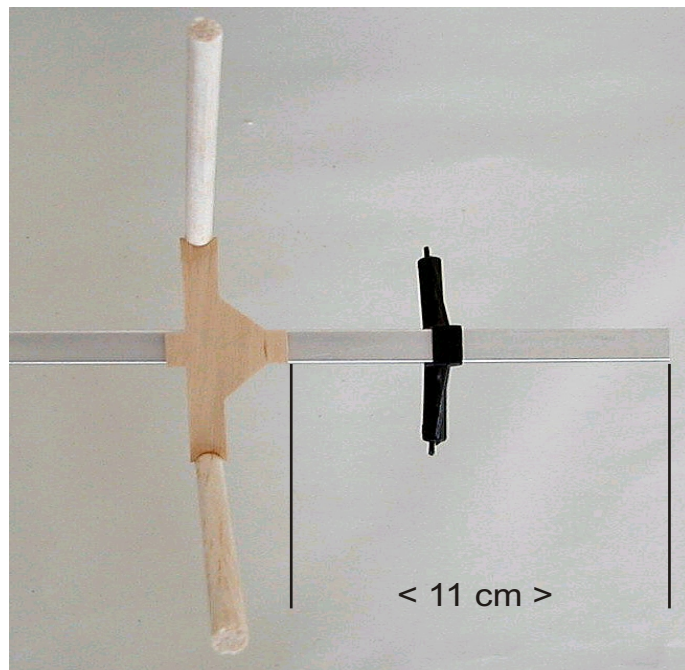
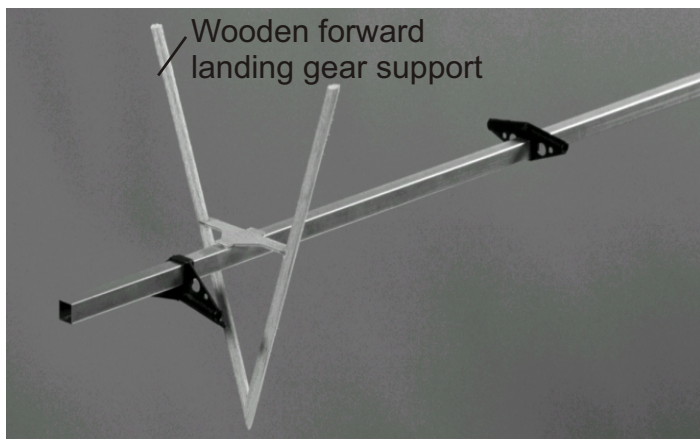


Carefully cut out the pilot figure along the dotted lines indicated in the diagram.

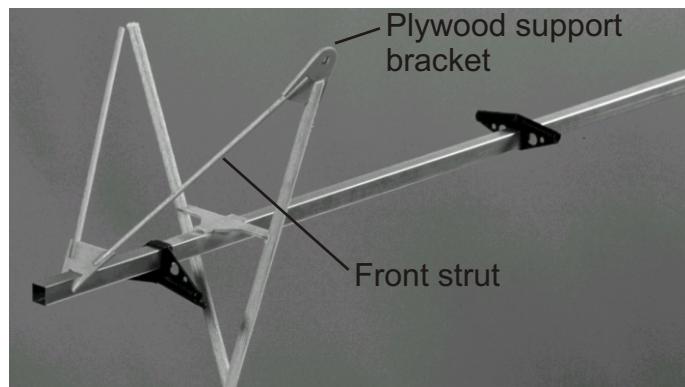
Glue the two halves of the pilot figure together with cyanoacrylate glue. **Attention:** CA glue can be dangerous. Keep this glue well away from children!



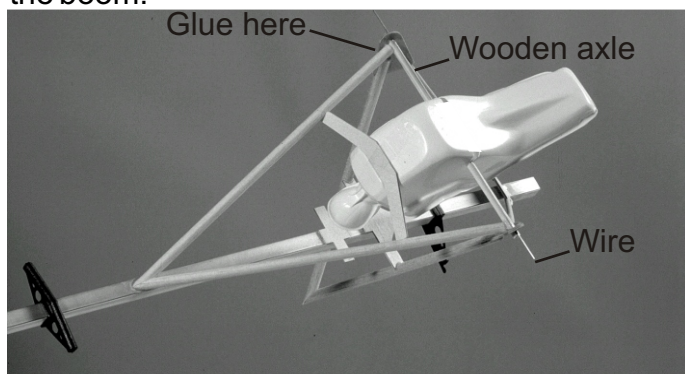
Push the two plastic wing mounts onto the aluminium boom, but do not glue into position yet!



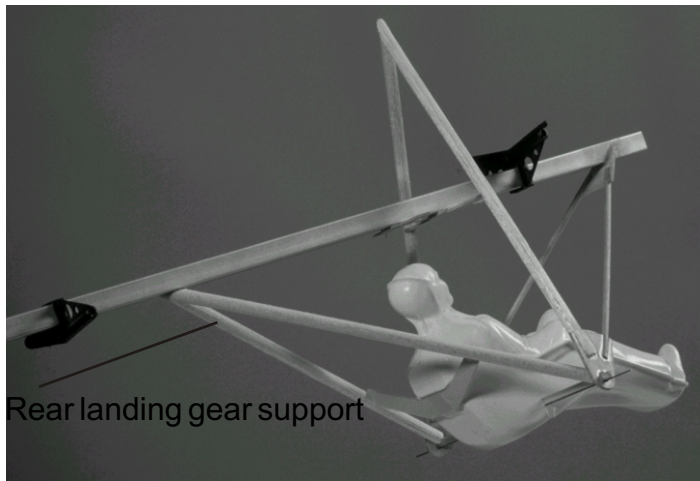
Using cyanoacrylate glue, attach the wooden landing gear support 11cm from the end of the boom as illustrated. N.B. Before gluing; roughen the aluminium surface of the boom at the gluing point with sandpaper in order to provide a good key for the glue. Make sure that you glue the landing gear squarely onto the boom.



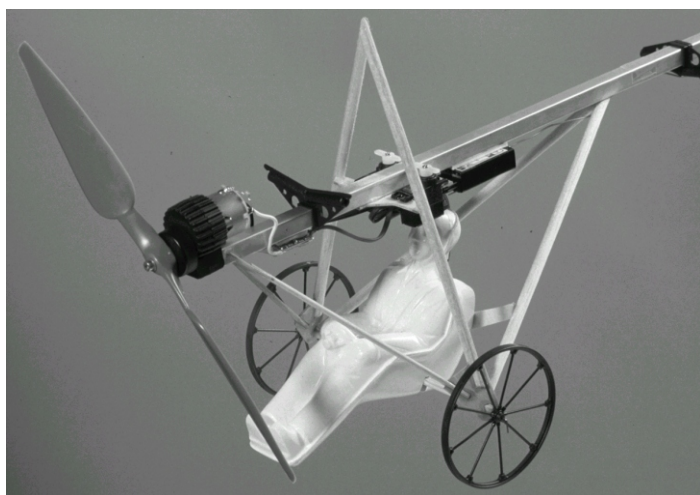
Glue the forward landing gear support to the 2 plywood support brackets and then glue the front strut to the support brackets and into position on the boom.



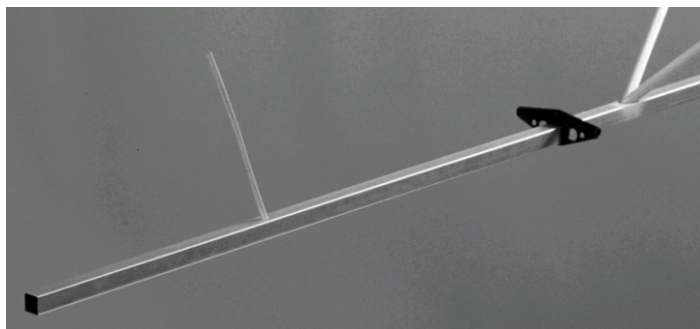
Pass the steel axle wire and the wooden axle through the holes in the plywood support brackets and through the pilot ensuring that the wire lies underneath the axle. Glue the axle securely to the support brackets.



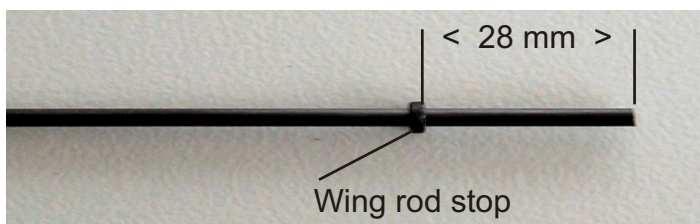
Glue the rear landing gear support into position as illustrated. Glue the pilot support to the rear of the pilot and to the rear landing gear support.



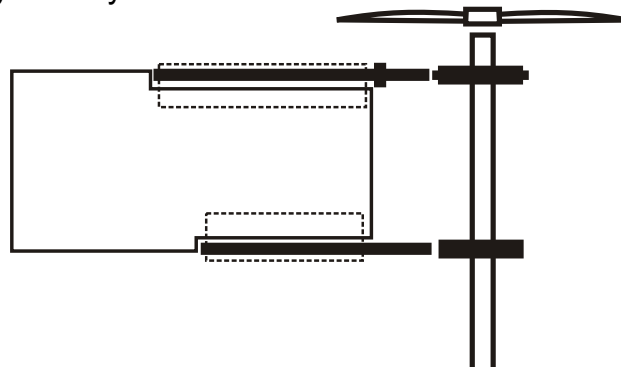
Slide the wheels onto the axle wire and bend the axle tips downward to retain the wheels onto the wire.



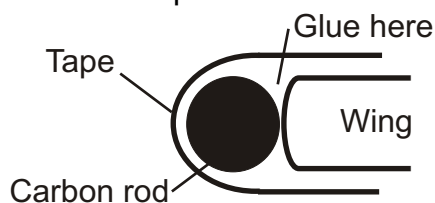
Fix the wooden tail skid into the hole in the boom at a 20 degree angle using epoxy glue.



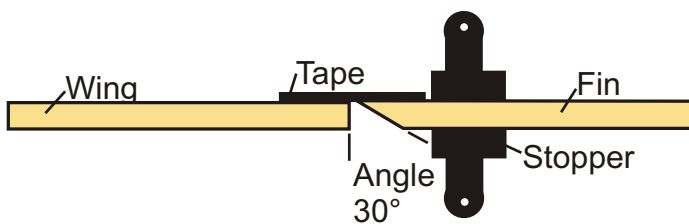
The next step is to glue the plastic wing root stops into position on each of the 2 longer carbon fibre wing reinforcing rods. Roughen the rods with sandpaper first and glue the round plastic rings into position 28mm from the end of the rods using cyanoacrylate.



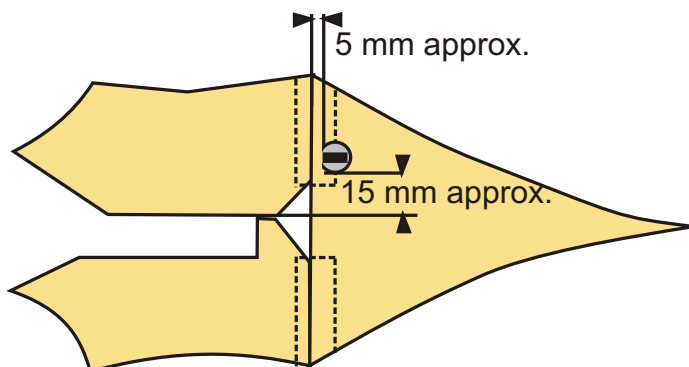
The carbon rods must now be glued into position on the leading and trailing edges of the wings. Apply UHU Por contact glue to the mating surfaces of the wings and rods and leave for 15-20 minutes. Press the rods carefully into position at the end of this period.

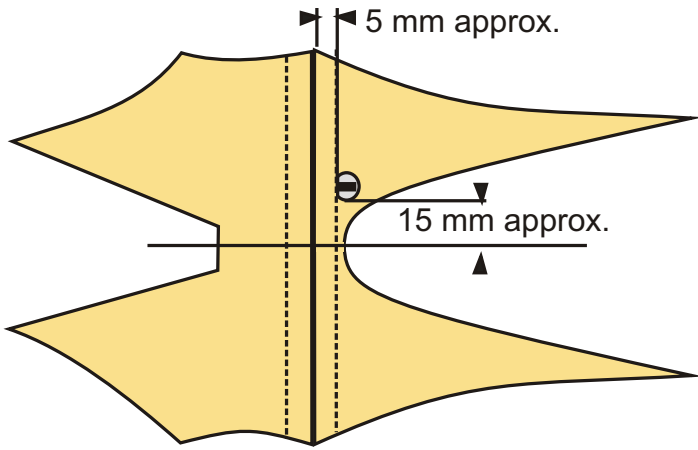


Now use the clear Tesa film adhesive tape supplied and run a strip along the length of each of the carbon spars.

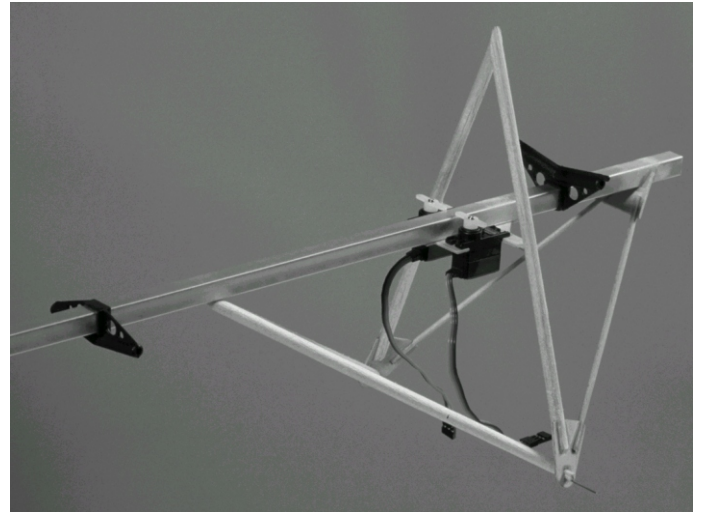


Sand a 30 degree bevel in the foam rudder and elevator as per the diagram above.

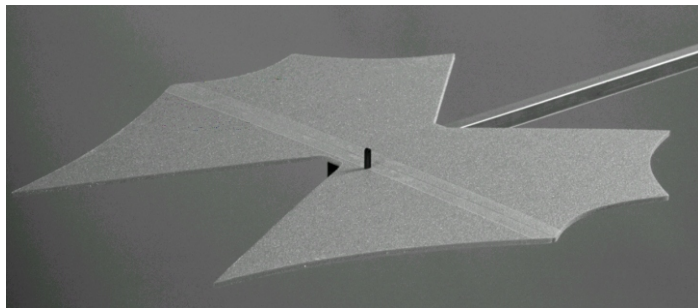




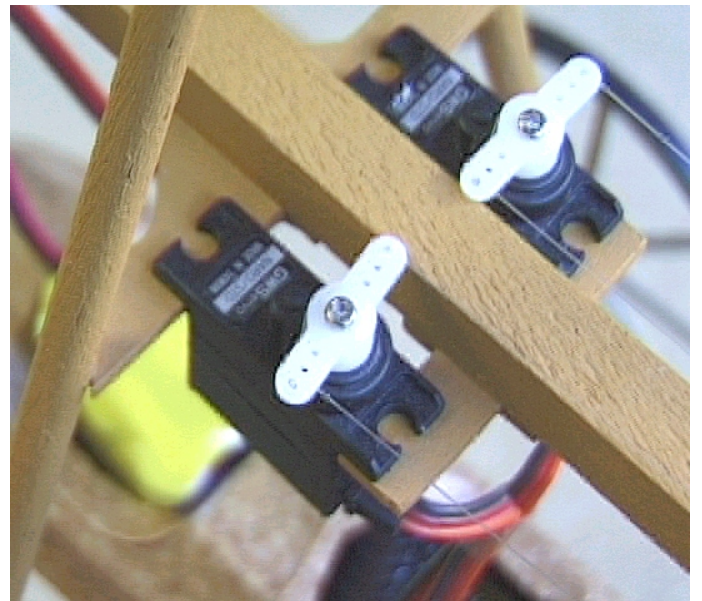
Lay out the tail surfaces as per the diagram above and identify the components. Firstly, carefully cut holes in the elevator and rudder 5mm back from the hinge point to accept the plastic closed loop control horns. Locate the black plastic horns and retainers and, using epoxy glue, attach them into position on the control surfaces. Pay careful attention to the horn positions specified in the diagram.



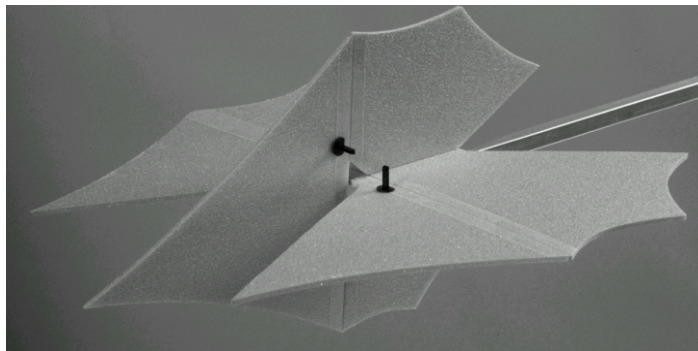
Glue the ply servo tray onto the boom and to the wooden landing gear support using epoxy glue as illustrated.



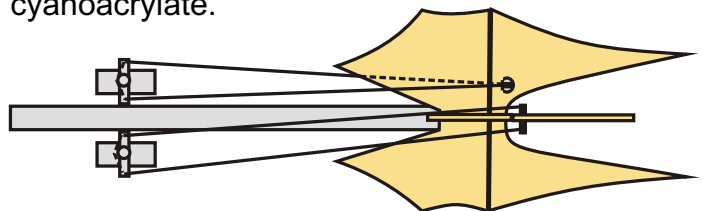
Using UH-Por, attach the elevator and tail plane assembly to the tail boom. Remember to coat each surface first, allowing 15-20 minutes curing time before assembling.



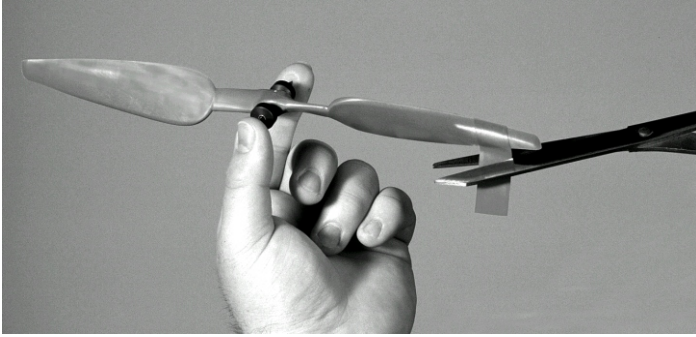
Glue the rudder and elevator servos (not supplied) into position in the servo tray using cyanoacrylate.



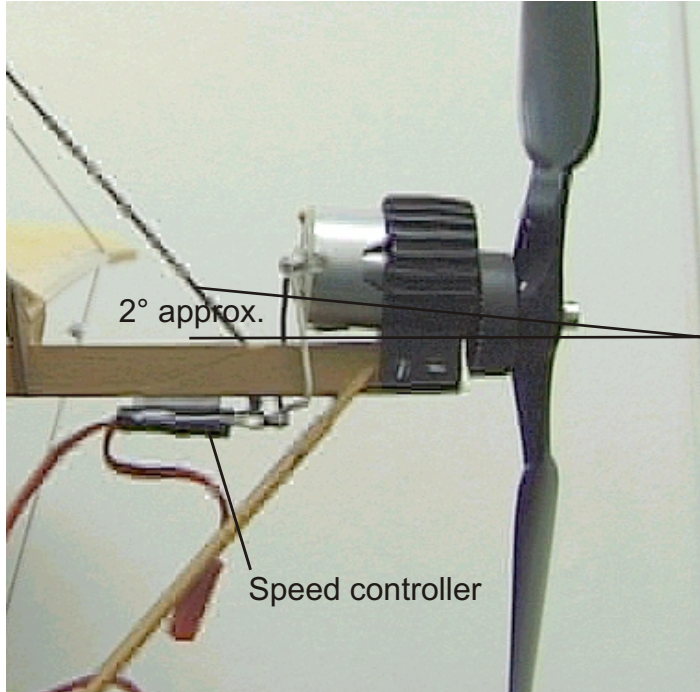
Using UH-Por, attach the fin and rudder assembly to the tail boom. Remember to coat each surface first, allowing 15-20 minutes curing time before assembling.



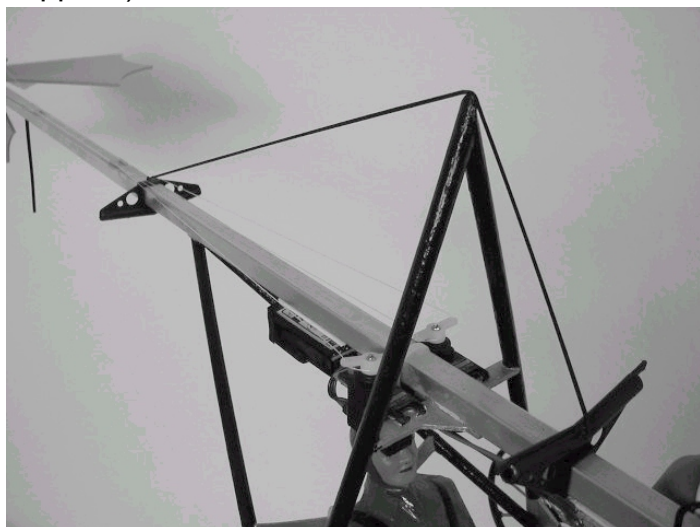
The nylon cord supplied should be cut into 4 equal lengths. " lengths are required per control surface. Tie 2 or 3 knots in the end of 2 lengths of line and thread them through one of the servo control horns. Run the lines as per the diagram to one of the control surface horns; one line above and one line below the control surface. Tie off and secure with cyanoacrylate ensure that the lines are under a small amount of tension. Repeat for the other servo. Ensure that control surface throw is around 30 degrees each side of neutral for rudder and elevator.



Balance the propeller using a suitable propeller balancer as illustrated. Add tape to the tip if a lighter blade is apparent during balancing.

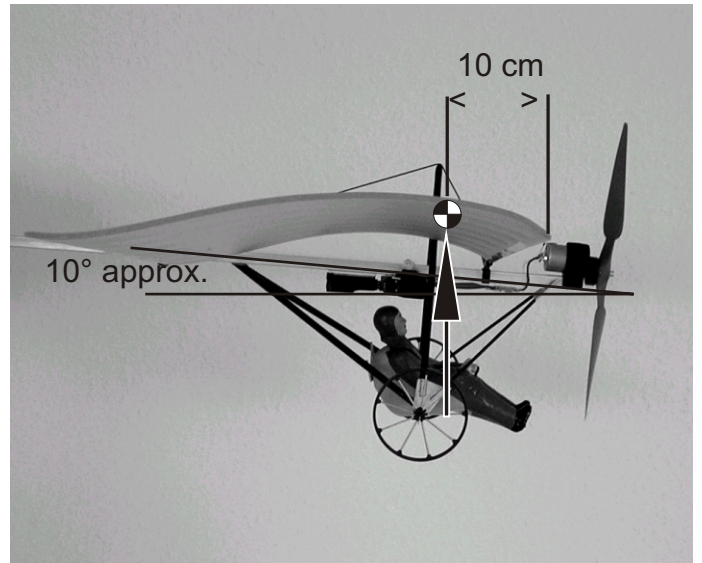


Slide the motor and gearbox assembly (not supplied) into position on the front of the boom and glue into position with cyanoacrylate ensuring that the motor is angled down by 2 degrees. Note also the position of the micro speed controller (not supplied).



Glue the black elastic for scale decoration into position as shown above. Using servo tape (not supplied), attach a micro receiver to the boom as

illustrated behind the servos. Tape the receiver aerial along the boom. Slide the wings into position on their mounts. Slide the nicad battery pack into the pilot figure and use foam packing (not supplied) to wedge it into position so that it cannot move.



In order for your Demoiselle to fly correctly; it is imperative that your completed model balances 10 degrees nose down when supported under the wings at the centre of gravity. The centre of gravity lies 10cm back from the front (leading) edge of the wing.

Important Pre-Flight Matters!

Pre-flight checks

Before you fly; make sure that your R/C system is functioning correctly and that your batteries are either new or fully charged. Connect your R/C system and check the range of your R/C system as per your R/C manufacturer's instructions.

Always check the centre of gravity before flight and that all components are secure. Switch on your transmitter and ensure that throttle is set to the low stick position, i.e. zero power. Connect your receiver to the battery pack and switch on. Hold onto your Demoiselle and slowly advance the throttle until the propeller starts rotating. Get an assistant to hold the model when you do this and keep all objects and fingers especially well clear of the rotating propeller. If the propeller is rotating in the wrong direction, switch off your R/C and swap the position of the motor wires.

Centre your transmitter sticks and trims. Check that rudder and elevator control surfaces are in the neutral (centre) position. Check elevator and rudder travel for proper direction ensuring that

around 30 degrees control surface travel each side of neutral is realised.

Special note for newcomers to R/C flying

If you have never flown R/C models before; then you should seek advice from your supplier concerning the correct procedures required for safe and successful R/C model flying.

Special flying notes for Slow Flyers for experienced model pilots

The light weight and extreme manoeuvrability of this model gives very slow flying characteristics (fast walking pace) with a very good turning radius. It is very easy to become over-confident after your first Demoiselle flight; so do not land or take off in confined spaces until you have had several good flights.

Important Safety Information

Fly this type of aircraft either indoors in a suitable Sports Hall or outside at an approved model flying site on relatively calm days.

Even though the motor is small; the propeller has a great deal of energy and must be treated with a great deal of respect when operating.

WARNING! Serious damage can be caused by models and model propellers to people or property. Consult your supplier if you are at all unsure about model aircraft safety procedures. In particular, R/C model aircraft must be kept well away from children, animals and spectators. Fly only where it is safe to do so; if you are in any doubt about this, you must contact your supplier and/or your local Model Flying Club. Model Flying Association information can be found from the many available model magazines.

Warranty

This product has been carefully checked before shipment. All claims will be treated according to our general conditions of sale. In the event of a claim, please consult your supplier in the first instance.

If an equipment returned for warranty repair shows full functionality during the entry inspection, a handling charge of DM40,- will be raised. According to our experience the product works well with all current R/C systems. On the other hand we cannot grant functionality with a specific R/C system due to the fact that control pulse conditions of receivers are not liable to standardization. We must as well reject any responsibility for consequences arisen from the

use of our products since we are not able to supervise their appropriate application.

Safety directions

The CE-label is no warrant for negligent handling of the equipment. Avoid dangerous areas of motors, propellers, gears and rotor blades. Always consider electric systems as potentially dangerous. Always remove the battery if you intend to work on the system. Avoid direct and condensed humidity. The product is not protected against reversal of polarity. Reversing polarity or cables can entail irreparable damages. Plugs and sockets must always fit perfectly. Improvisations can give rise to damages. Care about the power consumption of the power supply, especially with regard to the gyro. A higher power consumption than assigned for can damage the power supply and other equipment connected to it. Never disconnect an electrical appliance from the battery as long as it is operating.

Operating directions

The transmitter must always be switched on first and subsequently the receiver. Watch out if the throttle stick is in the low throttle position. In any case verify that you are exclusive user of the selected frequency and nobody else is using it. Pay attention to the CE-labels of other components. Provide motors with at least 2 noise suppressing ceramic capacitors 10 - 100 nF/63 - 100 V and optional with further noise suppressing means (filters, chokes). Route the antenna at least 1" away of motor, battery, speed controller and their cables. Install the receiver as far away as possible of motor, battery and speed controller. Keep cables as short as possible. Motor and battery cables should be twisted. For the purpose of storing your model remove the batteries and store it at a dry place with normal air humidity. Should the system act erratically, disconnect the flight battery from the system and reconnect it again after a waiting period of 5 - 10 s.