

Material required for assembly:

- 1 ruler
- 1 cutter
- 1 crystal adhesive roll
- 1 Odorless CA Glue
- 1 Odorless CA Activator

Equipments required

- 1 Outrunner brushless motor from 20 to 25g
- 1 Brushless ESC 8 to 10A
- 3 servos (5,4 to 6,4g with precise neutral)
- 1 Micro receiver 4 channels (2-6g)
- 1 Lipo pack 350 à 450mAh (7.4 to 11.1v)



Prepare the wing by cutting the ailerons from the wings.



Prepare the ailerons making a 60° angle at the leading edge.



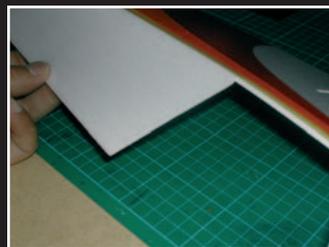
Make this angle smooth with sand paper.



Apply hinge tape to three ailerons. The second for the upper wing and one for the lower wing. This adhesive will be the hinge.



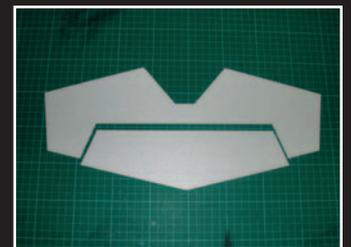
Apply the ailerons



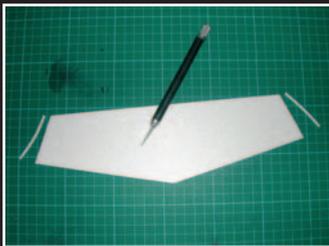
Make sure you have enough clearance up and down.



3 ailerons out of 4 are prepared. This is because you'll need to fit the lower wing into the fuselage it is not hinged one side.



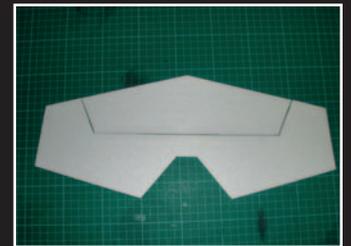
Prepare the elevator.



Cut off 1mm of each side of the tail plane.



Prepare the elevator making a 60° angle at the trailing edge edge.



Hinge the elevator with hinge tape.



Prepare the fuselage sides by making a 60° angle at the inside dorsal edge.



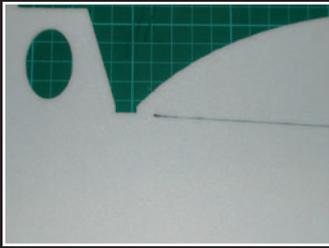
Apply hinge tape on the outside dorsal edge of one fuselage side.



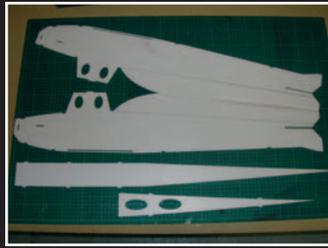
Join the two fuselage sides with hinge tape already in place on the other side.



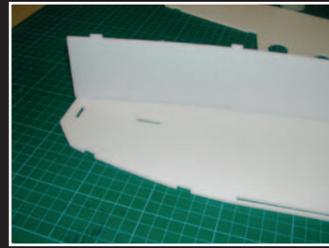
Draw a line from the back edge of each side to the base of the canopy. This line starts 10mm above the elevator opening



The base of the canopy.



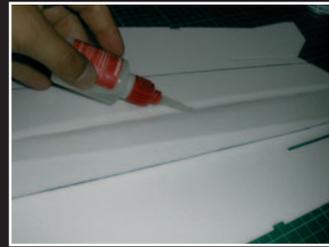
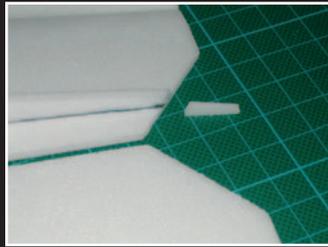
The fuselage sides and the two horizontal pieces.



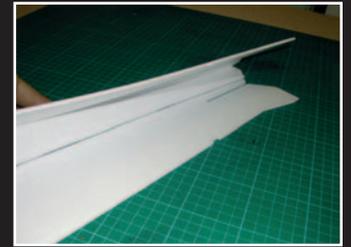
Place and glue the larger horizontal from the front of the plan to the back. Please follow the line already drawn for gluing.



Cut off the piece which exceeds the fuselage side.



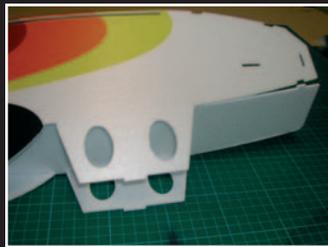
Lightly fill the dorsal edge with CA.



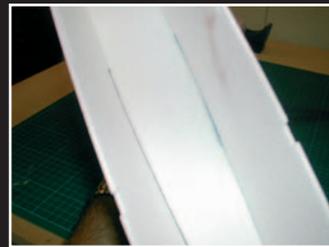
Fold the Fuselage sides



Here is what you have to do.



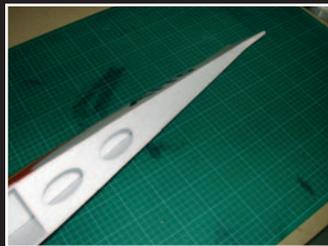
Glue the second fuselage side to the horizontal piece.



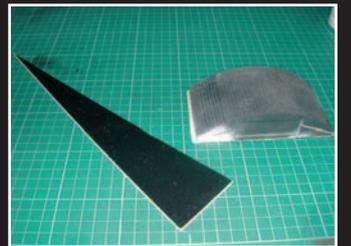
Still follow the drawn line for gluing. Use activator for this.



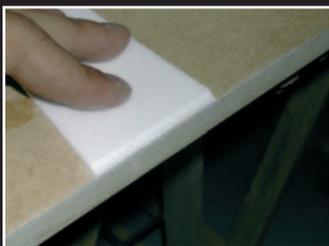
Place and glue the smaller horizontal piece between the two lower fuselage sides.



Glue the two fuselage sides together at the trailing edges.



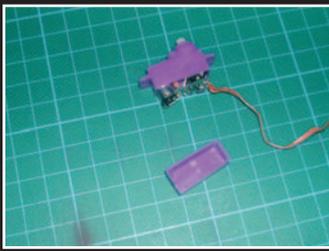
You will need the canopy and sand paper for the next step.



Sand the trailing edge of the canopy's top at 45°



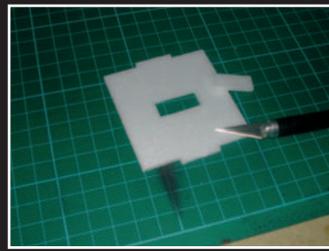
Gluing the canopy's top in three steps. Use activator for easier work.



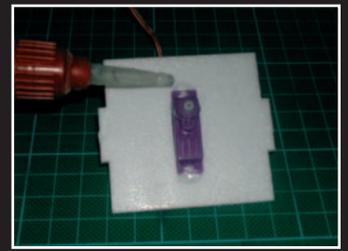
Optional: Prepare your rudder servo by removing the back plate. This can reduce the weight of the servo by 1g.



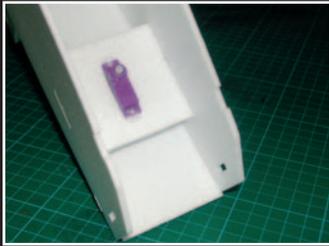
Locate the plate for the rudder servo.



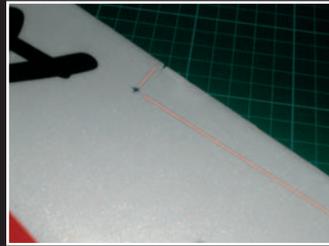
Cut hole to fit the servo.



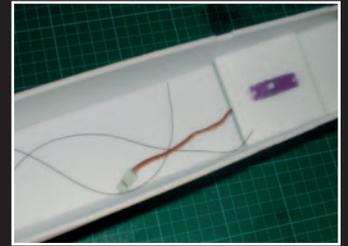
Servo is then glued into position.



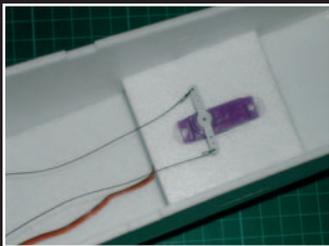
The plate is inserted into the opening already made on the fuselage sides.



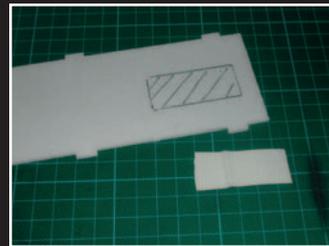
Cut off a small rectangle at the back of the fuselage on both sides. These rectangles are made for the passage of the rudder wires.



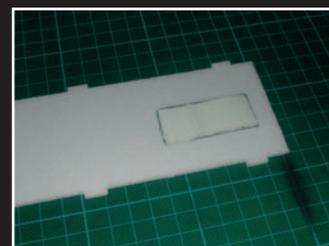
Install the rudder wires.



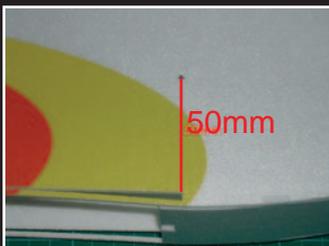
The rudder wires are connected to the rudder servo horns.



Installing the Velcro which is going to fix the lipo pack later.



Close the front of the fuselage with the previous piece.



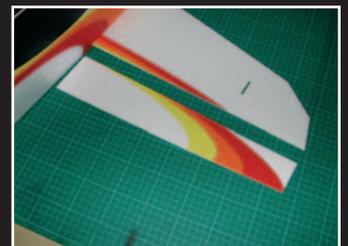
Drill the opening for the landing gear legs. 50mm above the leading edge of the lower wing.



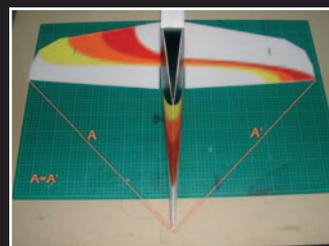
Lower wing slots may need adjustment at the trailing edges of the fuselage on the right side.



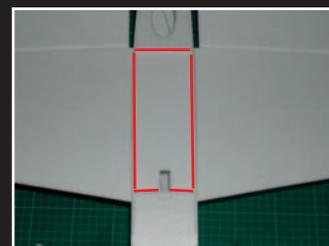
Insert the lower wing into the fuselage.



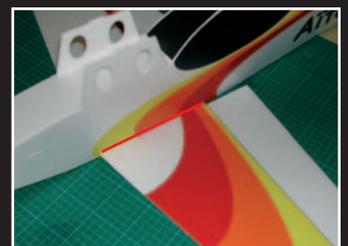
Hinge the remaining aileron.

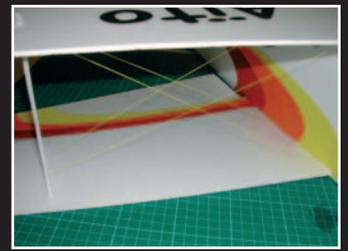
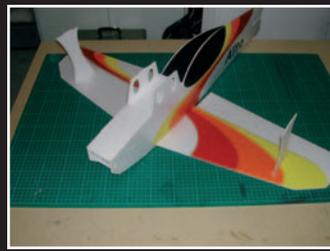


Check for correct alignment.

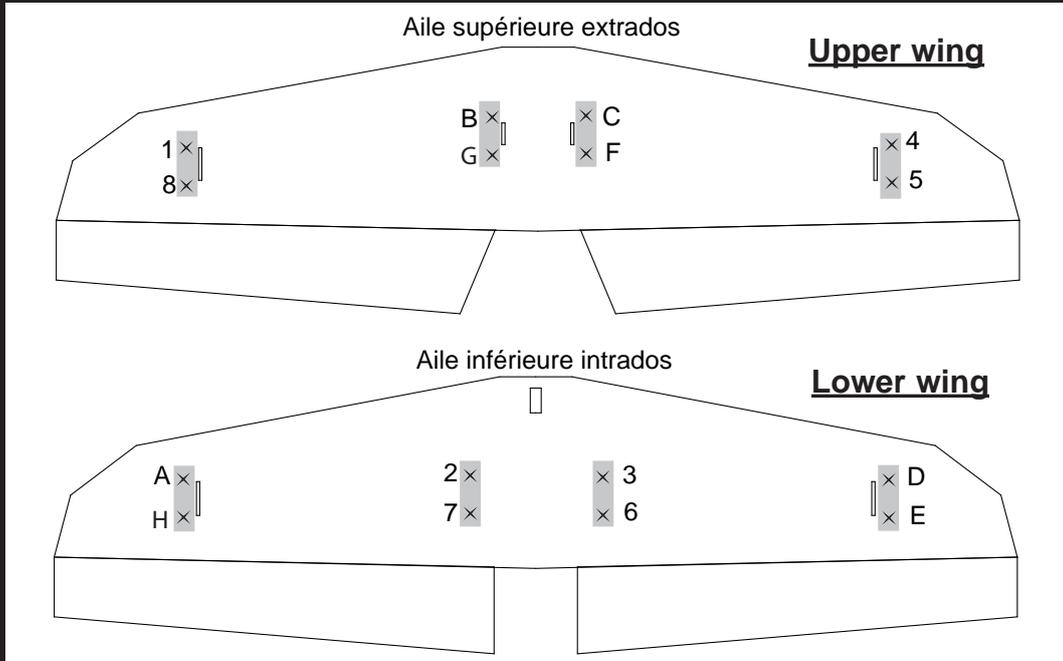


Once satisfied, glue the lower wing to the fuselage following the red lines.

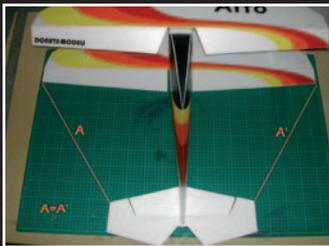




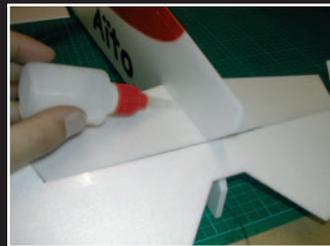
Installing the Upper wing in three steps.



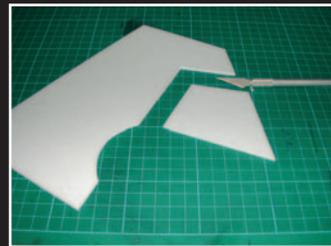
Make the brace following this drawing. First start at 1 to finish at 8, then start at A to finish at H. Once the wings are in alignment with the bracing wire permanently glue bracing wire at the entry and exit points.



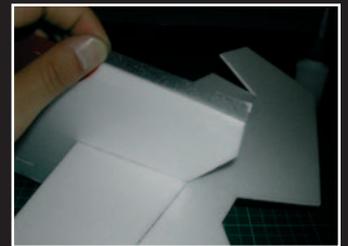
Measure from each wing tip to tailplane to ensure correct alignment and squareness of the tailplane.



Once the squareness is correct, glue the elevator to the fuselage.



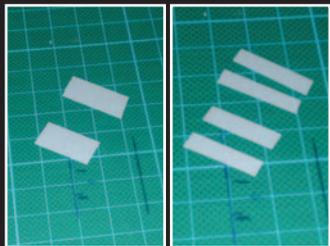
Prepare the rudder.



Remove the tape from the fuselage.



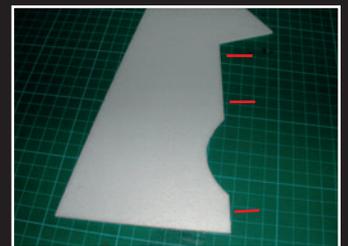
Glue the rudder. Make sure it is glued straight in the axis of the fuselage.



Cut hinges to suitable length.

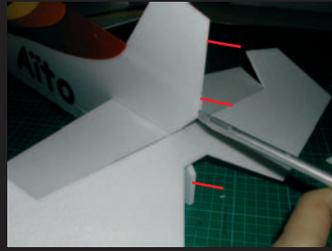


Make the slots in the hinges for the rudder.





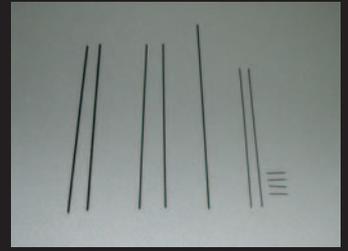
Glue the hinges.



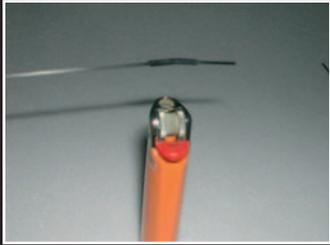
Make slots in the fin for the hinges.



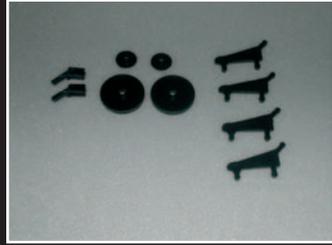
Install the moveable part of the rudder and then glue the hinges inside rudder.



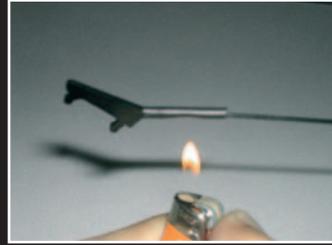
Cut the carbon rods as shown on the yellow leaflet.



Prepare aileron pushrods for joining upper to lower wing ailerons.



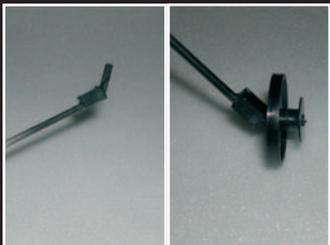
Plastic parts:
2 wheels, 2 wheel supports, 4 horns, 2 wheel stops.



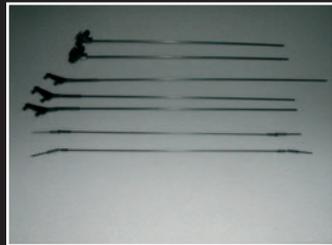
Preparing the ailerons and elevator links.



Apply CA on the wheel supports.



Wheel support glued on the landing gear leg. Wheel and wheel stop in place.



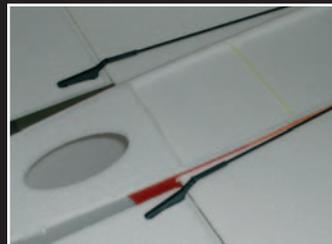
All the links finished.



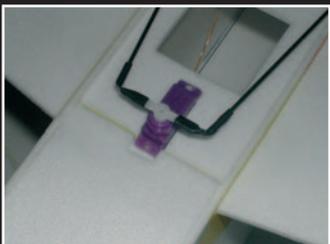
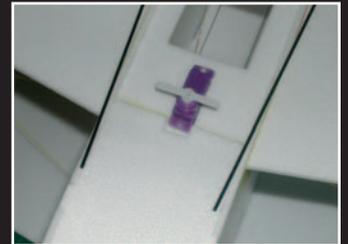
Link upper ailerons and lower ailerons together using the in-between aileron links.



in-between aileron links in place.



Installing the aileron pushrods to the aileron servo. As for the rudder servo, the aileron's servo is simply glued into a rectangle you'll have to do.



Link the aileron links to the aileron servo horns using shrink tube.



Installing the rudder horn. Please insert the horn through the lower hinge.



Link the wires to the rudder horns. Tension the wire.





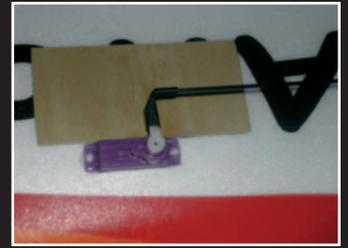
Installing the elevator link to the elevator.



Make hole for the elevator servo.



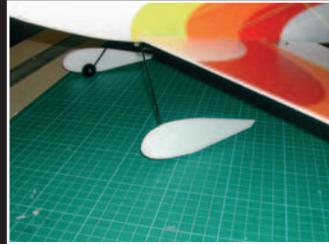
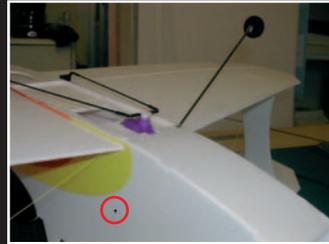
The servo is still glued in place. Use enamelled wire for extensions. This will save you at least 7g on the total weight.



Link the carbon rod to the servo horn using shrink tube.



Positioning the landing gear legs. Glue on the red points.



Glue the wheel covers.



Installing your motor. You may use the smaller plate and the 1mm PVC Plate. Once your motor is fixed, insert the plate into the fuselage sides holes.

Gravity point

The gravity point is located **100mm** for the leading edge of the upper wing.

Clearences

Elevator	Maximum (60% d'EXPO)
Rudder	Maximum (60% d'EXPO)
Ailerons	Maximum (60% d'EXPO)

For maximum performances, Donuts-Models recommends the following accessories

Motor Stout-Aéro F3Ai
ESC Phoenix 10 Castle Creations
Lipo pack 450mAh 7,4v E-TEC
Receiver GWS μ 4
Prop 8x4,3 to 9x4,7

Technical Characteristics

Wing span	890mm
wing area	Env. 32.5dm ²
Weight	170-200g
Wing loading	5 - 6.2g/dm ²