STREGA II

INTRODUCTION

The Strega II is a F3F hotliner, so it's a glider generally used for slope soaring. This is a change compared with the previous version with a slightly different wing; aerodynamics has been improved, and the wingspann slightly shortened.
This is a glider-composite with a full composite option available.
In the fuselage, the existence of a ballast hold is used to vary the wing loading according to wind conditions.

Composition of KIT

I always start checking the components supplied with the kit.

In the box, we have:

Number	Description
1	Fuselage
2	Wing Panels
1	Tailplane panel
1	Wing Joiner
4	Wing Servo Covers
4	Wing Servo Trays
2	Tailplane Joiner
1	Fuselage Ballast Tube
12	M2 clevises
1	Fuselage Servo Tray
4	Aileron / Flap Pushrods
2	wires

You will need in addition :

- *4 servos for the wings (10 mm thick)*
- *2 servos for tailplane units*
- *30 mn Epoxy glue*
- *Glass bubbles*
- *Silicone for servo covers*
- 1 receiver
- *1 Rx battery*
- *1 Tiger nut + screw*

THE WING

Before beginning installation,

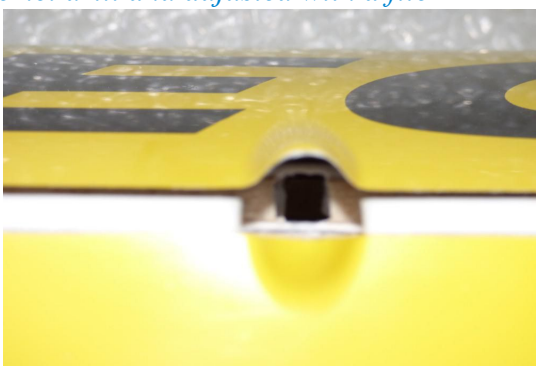
It is necerray to prepare a clean bench to avoid damages or marks on the wings with tools or screws,

I usually start mounting the wings :
First, I check the correct deflections of the ailerons and flaps to be able to obtain the necessary deflections on different surfaces.
Deflection will be smooth and hinge flexible.

I also check the fit of all elements wings, joiner, fuselage, tailplane. Normally adjustments are accurate and do not require special adjustments.

We must prepare the location of controls.
The drilling of the location of the horn is then adjusted with a file. It is necessary to provide a sufficient pathway in the beam so that the command does not touch the wing.

The hole is made using a Dremel drill and adjusted with a file



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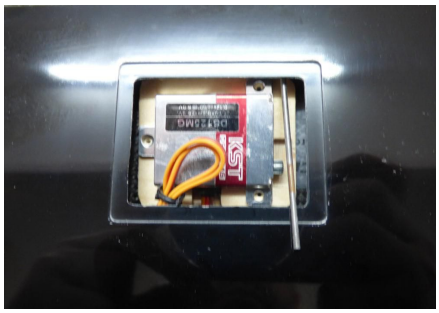
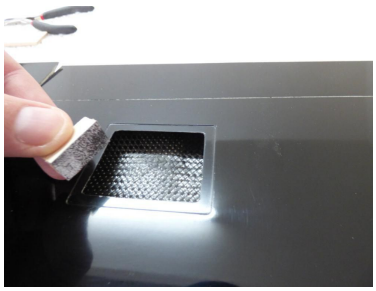
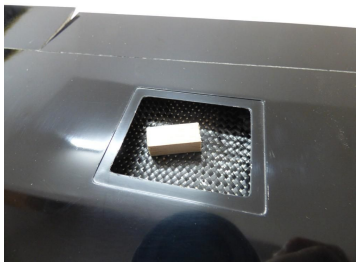
Before continuing, it is important to do a test without glue
Ensure that the pushrod move freely without touching the beam.

You should adjust pushrod to the correct length and check that everything is in line before installing the servo support. A glueless installation is required to ensure correct location. In the assembly, we used 10 mm servos. (Kst 125mg)

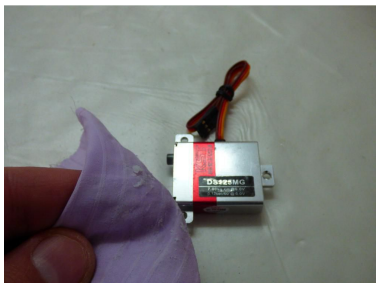


To paste the support, it is important to polish the inside of the wing for better bonding with carbon.





To prepare the bonding, it is important to protect servos with wax. We polish with this wax the surfaces which may be in contact with the glue. This will allow to remove the servo if necessary later.

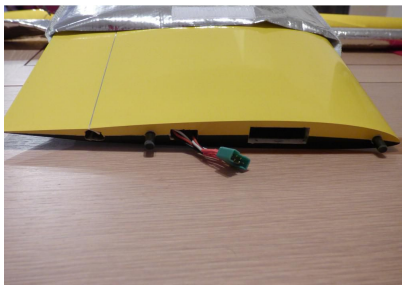


We glued the wooden frame (supplied in kit) with epoxy glue + glass bubbles..

We set all servos and wooden frame. The servo arm is 90 ° oriented and the aileron is in neutral position. Each wing will be treated the same way.

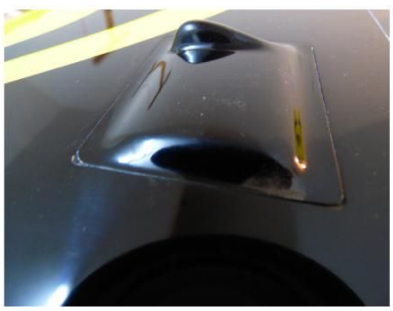
The flaperons are treated differently: the flap is still in neutral position but the servo arm is tilted by 30 ° to the spar. This will allow to obtain the necessary travel down.

To connect the servos, I used the wirings provided by RCRCM for wiring servos; the socket remains free and is not glued to the wing. We must check the good position of the socket location.



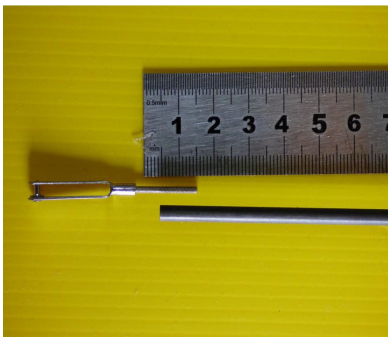
Pushrods must not touch protections to maintain the proper displacement.

Finally cut the servos covers and adjust them to the forseen locations on the wings, Scissors can be used to carry out this operation easily. The bonding is then performed with silicone. This way, the bonding remains flexible and able to resist to frictions during landings:

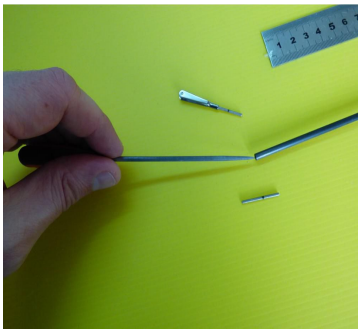


THE FUSELAGE AND TAIL

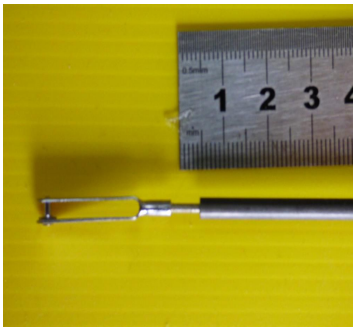
We start with the controls of the tailplane. I use M2 clevises and pushrods included in the kit. There must be a minimum length of 10 mm to stick in the carbon tube. Be careful to paste well the pushrods that will be heavily used during the flights and landings



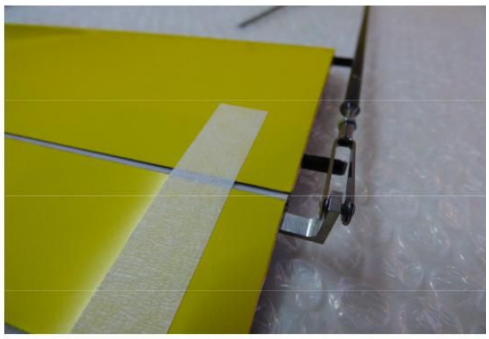
It is important to prepare bonding. It is necessary to file the inside of the tube to get a better grip for the Epoxy glue. The operation is to be done for both controls.



The next step is to paste the pushrods with clevises. It is necessary to respect the same length for each one. Use 30 minutes Epoxy glue.

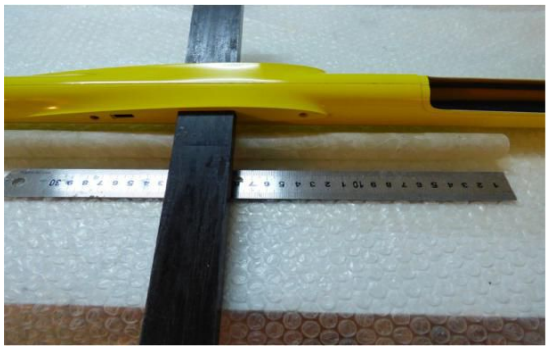


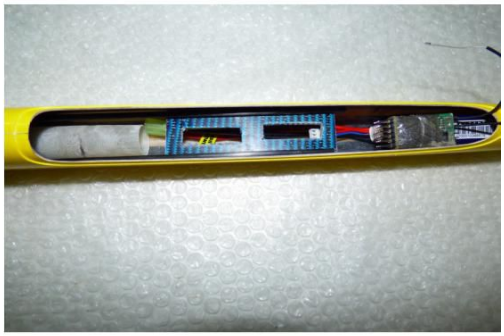
Before continuing, we check the proper connection between the stabilizer controls. It is important to get them operating without slack and without sticking.



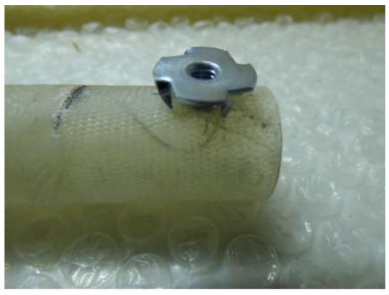
A significant element in the fuselage : the ballast hold. This takes a lot of space in the fuselage and we must foresee now its integration. This hold will allow you to change the wing loading depending on weather conditions.

First of all we must identify the place where it should take place. Then make an assembly hold + support plate without glue. Present the tube, radio support plate and battery:





The ballast hold delivered by Rcrcm is a simple tube made of fiberglass. We will need a Tiger nut with the necessary screw. First, we find the good location of the Tiger nut. It is necessary to drill the four holes.

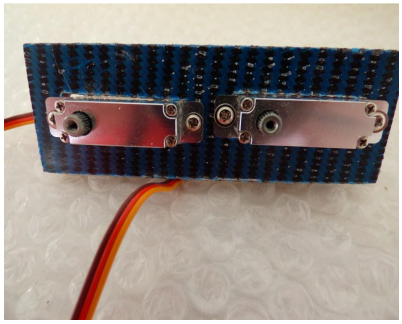


To let the pieces of ballast enter, cut the tube in half (see photo).
We then stick the Tiger nut on the tube.

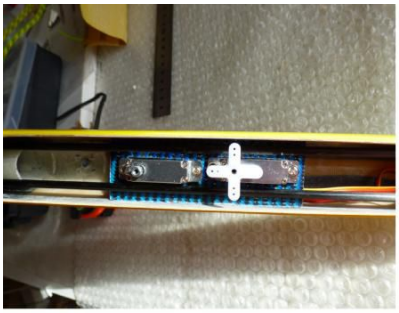
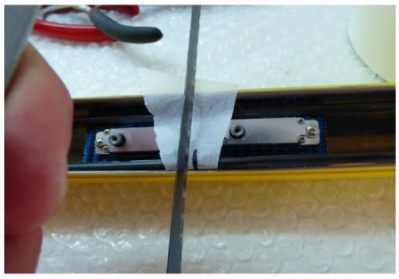
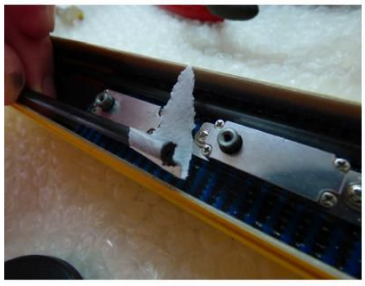


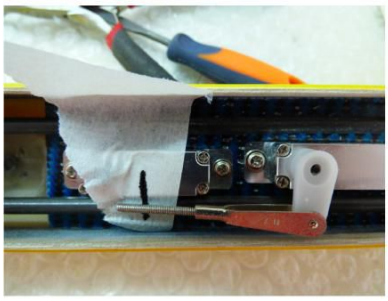
The tube being ready, it must be secured in the fuselage. Glue each end of the tube with a paste mixture based on Epoxy resin, glass bubbles and fiberglass chopped. Put the fuselage in a vertical position to allow the right positioning of the the ballast hold, and then tilt it to the horizontal. This way, the mixture will flow into the fuselage. Pay attention to the location of the joiner, it must not touch the ballast hold.

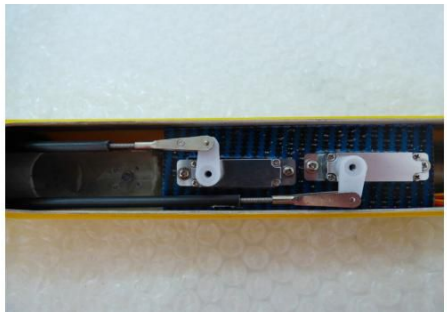

We then prepare the radio support plate.It might be necessary to make a new one to fit with the right size of the servos. Just take the external dimensions of the supplied support plate and then adjust the location of the servos.



Before final gluing, I mount the tailplane units with the controls we previously prepared . Then place the support plate in the fuselage, cut the pushrods to the appropriate length. Be careful with the height of the horns, they should be adjusted to prevent friction against the fuselage:



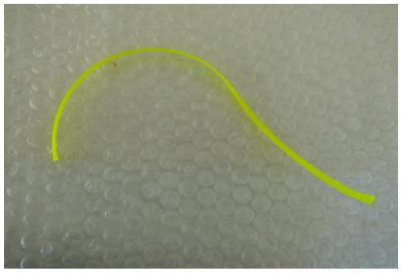
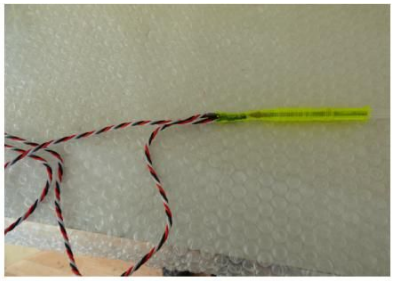


We can then paste the support with Epoxy + glass bubbles. A preliminary polishing will get a better bonding.

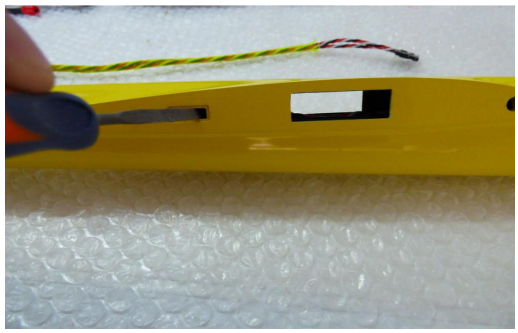
We must pay attention to the height positioning of the pushrods to avoid them totouch the joiner. It is therefore preferable to position those one during bonding.


Supplied RCRCM wiring is adjusted to the correct length. The fuselage being very narrow, I preferred to use a sheath to join each wiring harness.

Each side is in a sheath:

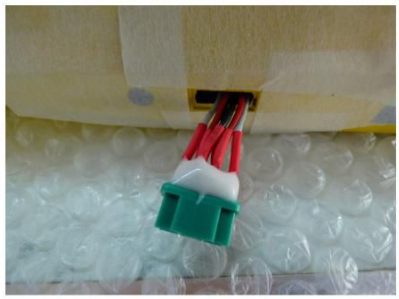

The green sockets should fit well on the fuselage, however it is possible that it could be necessary to adjust with a file. The operation is simple to perform.

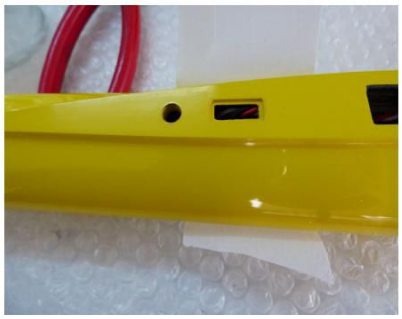


The adjustment made, just install the wiring into the fuselage.

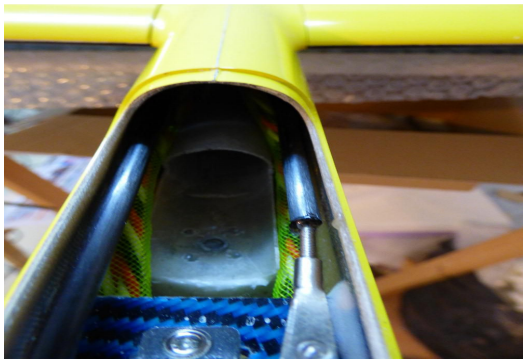
You must think about protecting the fuselage with adhesive tape to avoid staining it.

The glue is put behind the socket; after positioning them, return the fuselage so that the glue flows onto the fuselage. Tape the sockets to immobilize them during the drying time.



Both sockets being glued just pass the sheath between the pushrods and the ballast tube:

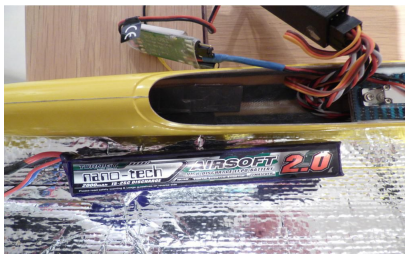


Installing the radio system, with the Rx, balancing lead.

For the balancing lead I use a plaster mold into which I pour lead; it is always

easy to adjust the C.G. making holes in the lead using a drill.

For the battery, I use an Airsoft battery to which I added a 6-volt regulator to power the servos:



For the balancing lead use a container, such as a plastic bottle base, in which we pour the plaster.
The fuselage is then positioned vertically.
We can then pour the molten lead.

Here is the final installation:

Balancing lead + battery + regulator + receiver

The fuselage being narrow, it is important to use a small size receiver .

The antennas are left outside as a precaution. Tests made with the radio control show that there is no loss of signal. If the antennas are positioned inside the fuselage, it is essential to make preliminary tests before flying.

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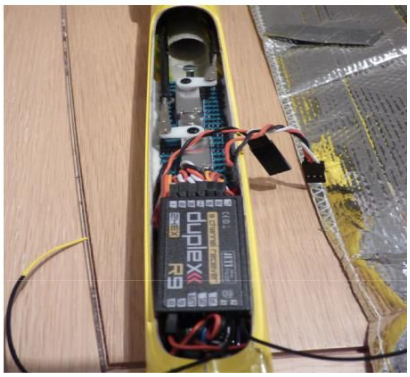

SETTINGS :

up : +
down : -
CENTER OF GRAVITY : 108mm (the glider is neutral)
Ailerons : + 21 mm / -18 mm with Flap : +11mm / - 9 mm
Elevator : + 8mm (with snapflap : - 4 mm) / - 10 mm
Rudder : + 9 mm / -12 mm
Crow : Flap - 70° / Ailerons + 5 mm / elevator : - 4 mm
Speed :
Alerons + Flap : + 1 mm