



TekSumo Fit-out Instructions



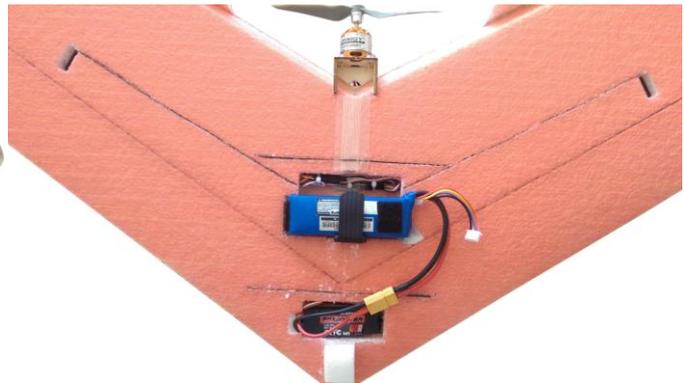
Your TekSumo "Fully Loaded" kit from RCFoamFly comes complete with all the fit-out components you will need to complete this wing with the exception of a receiver, battery and charger.

For best performance please see the building notes below which show the optimal layout for components. Building and fitting out your wing in accordance with these guidelines will ensure you have a centre of balance in the vicinity of the optimal location as well as wiring and component placement which will avoid damage on landing as well as giving good airflow and aerodynamics around these various components.

We recommend that you use a programmable transmitter to allow you to reverse servo direction if needed as well as to set maximum travel of servo arms and dual rates.

General Setup

On top of the wing you should mount your receiver and run the extensions connecting the motor and ESC. On the bottom in the compartment to the middle you can mount the Battery. In the compartment at the front you can mount the ESC unit which will sit flush with the bottom of the wing..



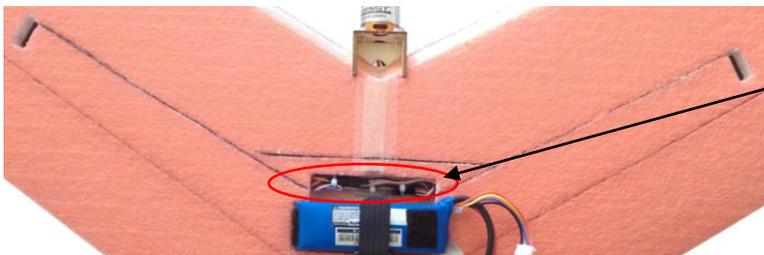
Servos

With this high spec machine it is important to have quality servos and this is why we supply these kits with Emax all metal gear servos. The servos will be a tight fit in the servo mount holes. First glue the wooden servo mounts to the top of the wing and then feed the servo lead through the hole first and gently push the servo into the hole. Screw the servos in place.



Note: Lay out your servos on the wing and connect up your receiver and v-tail mixer before starting the fitout. Check that servo arms are moving in the correct direction or that you are able to adjust your transmitter servo reversing if required.

Cut a gap about 5mm deep in the bottom of the wing surface to push the servo leads into and keep the bottom surface of the wing flush. The servo wires will reach to the battery mounting bay in the middle. Here plug one servo directly into the V-tail mixer and then use one of the servo extensions to connect the other. Finally cut a hole at the back of the battery bay through to the top surface of the wing where the receiver will be mounted.



V-tail connector and servo extension wire bundle.

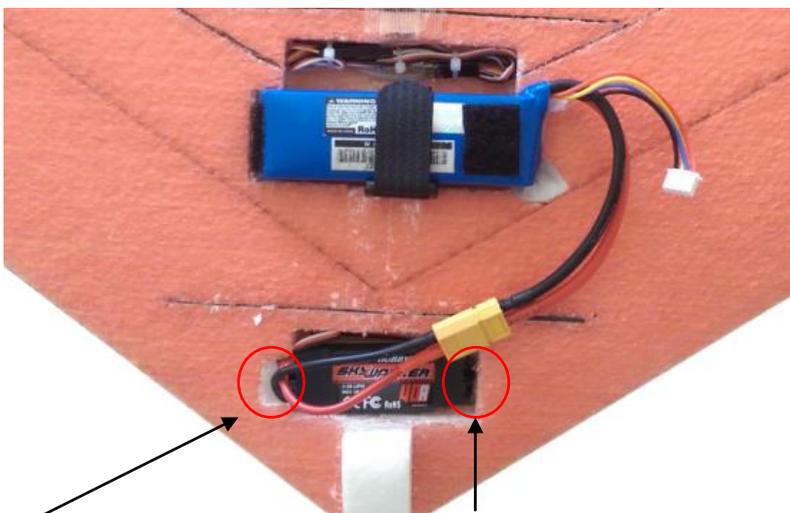
Tie these together with a cable tie to keep them neat at the back of the battery bay.



Servo wires from the V-tail mixer below exit here and plug into the elevator and aileron servo ports on the receiver.

Check and swap if necessary.

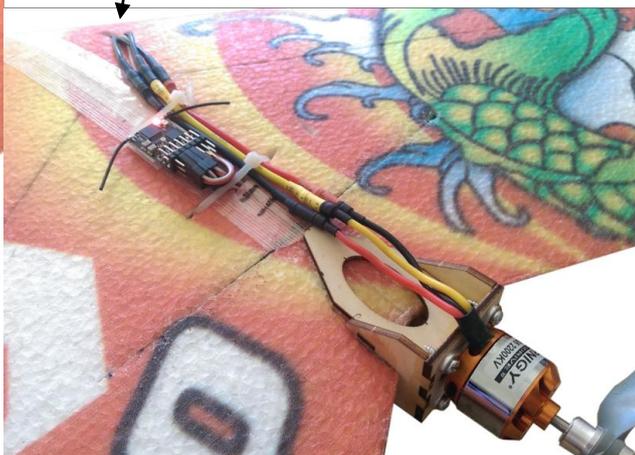
ESC
Mount the ESC in the bay at the front and secure with cable ties or double sided mounting tape. Cut a recess in the side of the bay to allow the power leads to exit. Cut a hole in the other end of the bay to allow the leads which connect to the motor to go through to the top of the wing. Then connect the ESC extension leads which lead back across the top surface of the wing to the motor.



Recess cut out of the side of the bay to allow room for the power leads

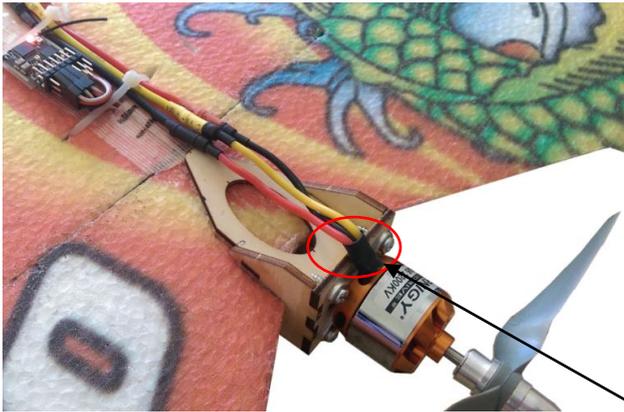
Hole cut through to top of wing to feed the motor leads through.

ESC leads exit top surface here and connect to the ESC extension leads.

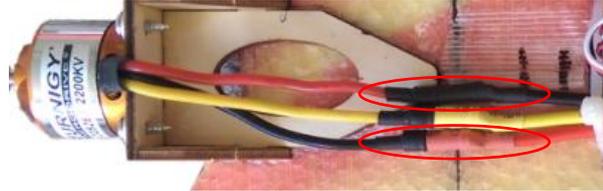


Motor

Mount the motor with the leads exiting over the top of the motor mount instead of through the bottom where the cutout in the motor mount is. The Motor leads should be a good length to meet up with the ESC extension leads. Tape or tie clip the leads in place.



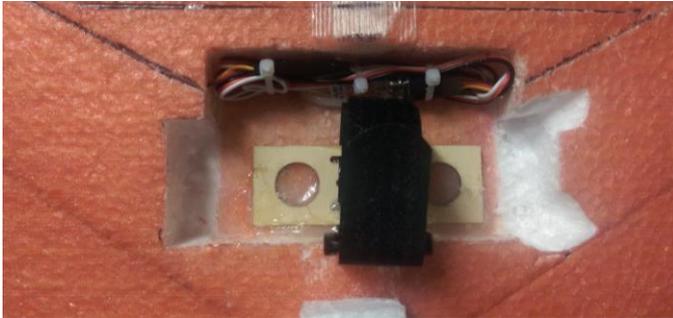
As this is a pusher setup we use a standard APC6040 prop. However, the prop is put on back to front and the pos and neg connections are swapped.



Leads go over the top to meet up with the ESC leads.

Battery

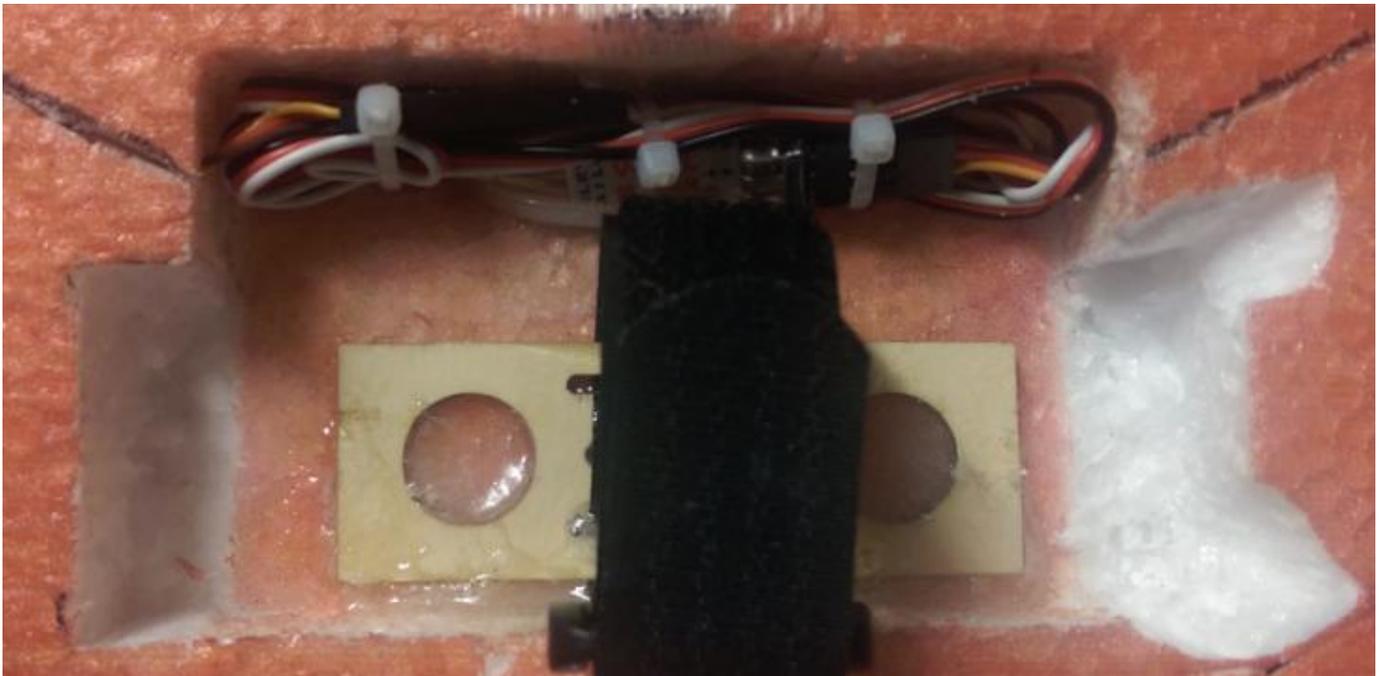
To power this high spec wing we need a 2200mah 20C battery. The battery is placed to the front of the bay and the size of the bay is enlarged by cutting out some foam on either side.



Finishing Up

Secure all components with tie clips provided.

To secure the battery strap holder use a generous amount of Araldite to glue it in and press firmly against the foam while it dries.



Trims and Servo Travel

For a flying wing to fly correctly a small standard amount of up elevator needs to be set.

The template below shows the amount of standard upward deflection needed on the control surfaces as well as the optimal amount of upward throw (surface movement) for both full elevator up deflection and full aileron deflection. Use either the travel adjust settings or the dual rates settings on your transmitter to make the movement match that of the template below.

Cut out the template below. Place the right wing on a flat surface (example : a table) and allow the motor mount and the other wing to hang off the table. Place the template next to the control surface and check the constant deflection and optimal deflections as shown in the image below.

