

Flash can be a total monster with HUGE speed, but it can also be driven very slowly indeed with total control.

Flash is made for a motor of 22mm diameter.

Battery duration with the recommended Li-po, is WELL over 2 hours, (we are still testing our Flash for absolute duration). Because motor power consumption is so low, it will be very easy to run the Li-po down below its 80% of capacity limit. We strongly recommend you buying the Li-po safe we recommend! This will bleep like mad when the Li-po gets close to 80% used, (customer programmable, so set to 3.3v).

Li-po's should never be run down past 80% of their total capacity. So for the pack we use in Flash, that being 2200mah, 1760mah is the absolute maximum you can take from a fully charged pack!

A NIMH pack can be used as long as it falls within the size and weight constraints of the Li-po Flash was designed for, they being :-

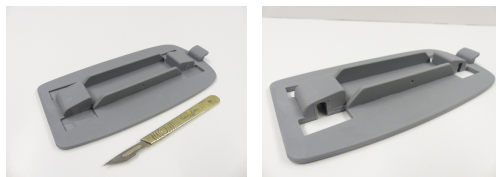
105mm long, 35mm high, 25mm wide, 190 grammes.

Also the voltage must be within the operating range of the ESC you are going to use. Looking at Strikalite's website, a 12 cell AAA 900mA pack can be made. 900mA should be enough power for an afternoons running and will be about 80 grammes lighter than the 2200mah Li-po we use. However, this is not a pack we have tried, so may not perform as well? A 10 cell AA pack could be made to fit with just a little resin taken off the sides of the battery tray, but that pack will be about 100 grammes over the weight of the Li-po we use.

Fitting a simple brake is strongly recommended. We have tested a few simple servo brake types, and found a silicon covered servo horn pressing against one wheel is all that is needed for normal running. When making your brake, make sure the servo can't 'stall'. Using a metal geared servo like the HS82MG is best.

1.

Cut off waste resin to open up wheel holes and axle grooves.



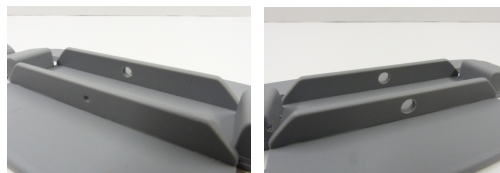
2.

Offer up the chassis and see if the packer needs to be used to attain a flush fit with the bottom of the body. If yes, sand to the correct thickness and glue onto the top side of the chassis at the rear. If the chassis is higher than the body, remove a little resin from the body mount. In some cases, this packer can be used to glue to the body where the chassis hook rests to attain an nice tight fit of the chassis. It is also worth spending a little time adjusting the height of the two chassis side mounts if needed, too get a nice flush chassis.



3.

Starting with a smaller drill, drill out the spots on the chassis rails, finishing at 7mm.



4.

Put a SMALL blob of glue into the bottoms of the axle grooves. Place the wheel sets into place and add a second SMALL blob of glue on top.



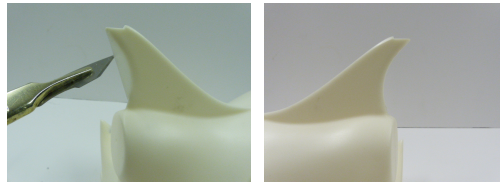
5.

Following the marked dot on the rear of the chassis, drill a hole a fraction bigger than the head size of the screw included in the kit. Following the marked dot on the body, drill a suitable pilot hole for the screw. Screw the screw into place leaving about 5mm. Fit the chassis and 'R' clip and adjust the height of the screw until there is little slop.



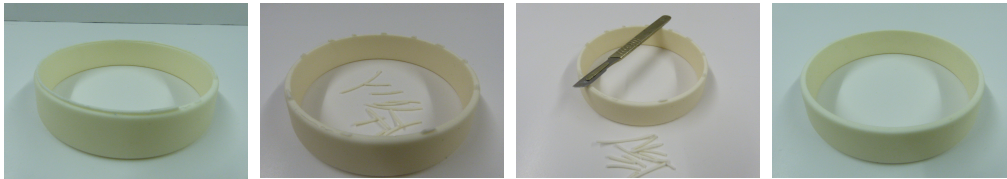
6.

Cut off waste resin from the rear of the fin and clean up.



7.

Snap off most of the waste resin from the rear of the fan hoop. Clean up what is left in any way you feel happy and finish off with fine sand paper.



8.

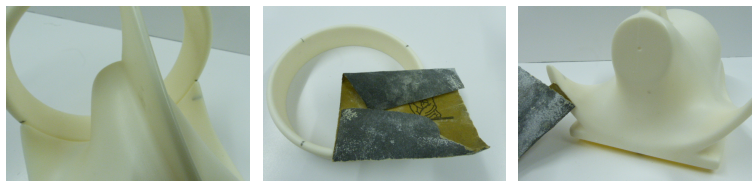
Place the hoop in the rebate on the top fin and mark. Gently sand the rebate to form a 'key' for the glue. Gently sand the inside of the hoop on the mark as a 'key' for the glue.

PLEASE NOTE THAT THE FRONT OF THE HOOP IS THE THICK SIDE!



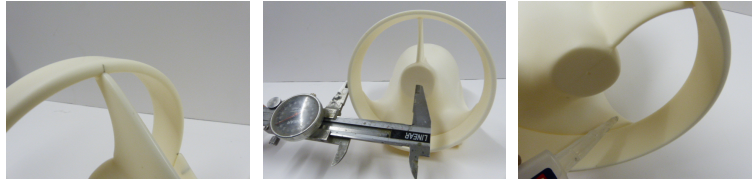
9.

In much the same way as step 8, mark and sand, but this time sand the front edge of the hoop and the rear of the body.



10.

Using the mark, glue the hoop to the top fin. When dry, test all 4 axes with a measuring tool and centre the hoop. Hold the hoop against the body with your fingers. Put a spot of glue from the inside, on the lower rear fin where the hoop meets the body. Allow the glue to run a little down the joint line. Repeat for the other side.



11.

That's about it for the basic construction.

What follows is based on the running gear we recommend.



12.

Testing from all four sides, familiarize yourself where centre is, it should be on the dot!

Carefully mark out all the holes needed for the motor. Make the bolt holes about .5mm larger and centre hole about 5mm for adjustment. It is a very good idea to drill at least three holes for the motor cooling, (as is on the motor face). Start by drilling smaller pilot holes, and then go full size.

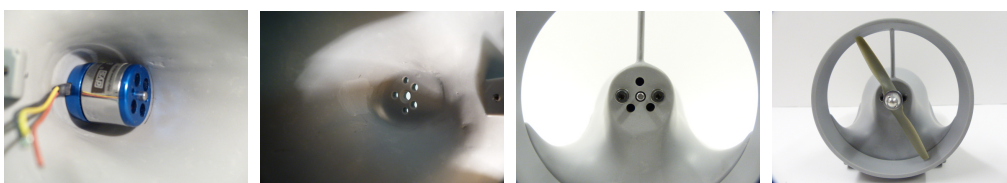


13.

Test fit the motor and mark a line if needed, if the motor touches the body.

With a Dremel, sand off a little resin for clearance. Please note that your motor may have a retaining clip at the end of the shaft. You will need to use a counter sink bit on the inside of the shaft hole to allow clearance for this. If this is not done, the motor will bind and over heat! Loosely bolt in the motor and fit the prop. The prop may need just the very tips clipping for clearance.

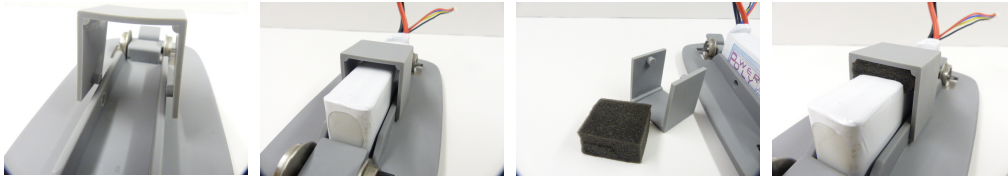
Centralize the prop and nip up the motor bolts.



14.

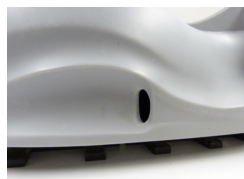
The Li-po holder clips into place by stretching it over the chassis side frames

and clicking into the 7mm drilled holes. The holder is made over tall so a foam packer can be added, (not included with kit). Depending on the Li-po you have, (they can vary depending on batches), cut and glue a suitable piece of foam onto the under side of the holder so it holds the Li-po securely.



15.

It is a good idea to cut air intake slots in the rear of the 'gills' to help cool the motor etc.



16.

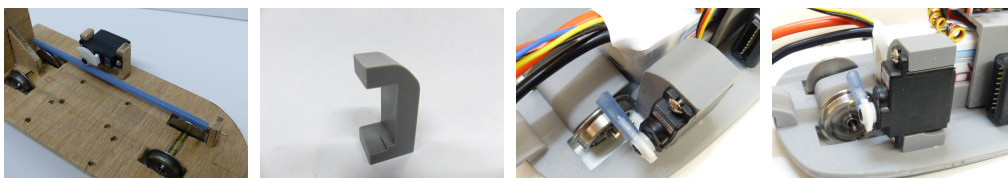
Brakes are a VERY good idea !!

You can use a reversing ESC, but this brings its own control problems. There are hundreds of ways to make a brake. Pictured below was the twin brake we tried on the 'test bed' made from brass rod and model silicon fuel tube. It worked very well. In reality, all we have found that is needed is a small piece of fuel tube over a servo horn on one wheel, this is enough.

MAKE SURE THAT WHATEVER SERVO BRAKE YOU USE, THE SERVO CANNOT BIND.

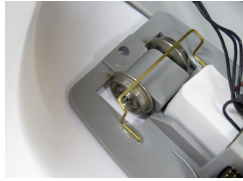
Note

The Flash kit contains a servo mount to fit an HS82MG mini servo, but could be altered to fit other servos of a similar size.



17.

It is also a good idea to fit a close fitting bar across the tops of the rear wheels to stop the motor wires being worn away.



If the motor runs backwards, swap any two motor wires around.

Follow all instructions contained within the speed controller packet.

