EXTRA 330SC 31%
Assembly Guide

Dear customer,

thank you for choosing EXTRA 330SC 31% model airplane. The EXTRA is a full composite middle wing taildragger, with main wing a horizontal stabilizator spar made from carbon fibre tube. Wing and horizontal stabilizator can be easily removed for transporting. All control surfaces has central hinges.

1. Technical data:

Wingspan	2300 mm
Length	2230 mm
Weight (RTF)	9,5 kg
Wing area	112 dm2
Wing loading	84,8 g/dm2
Engine (Gas)	50-70 ccm
Minimum RC channels	5

Notice: This Assembly guide only shows how the model could be assembled. According to model specification we expect, that this airplane is assembled by experienced user, which will use his habbits and skills to finish it.

As an accesories (levers, rods, fuel caps and fills, etc.) we recommend Secraft. Please see chart below of minimum needed accesories. (Order could be done with kit or separetely via sales@krill-model.com email, please specify servo manufacturer.)

Accesories	**Pcs.**
Servo arm D40 mm ALU V2	4
Servo arm D90 mm double side offset ALU	1
SEC Ball links M3 (10pcs./package)	2
SEC M3 50 mm push rods ALU	2

Note: The length of push rods depends on orientation of servo.

2. General informations

- all nuts should be secured against looseninig (use Loctite 243)
- make sure, that all control surfaces can move freely
- all holes drilled in airplane surfaces, that is not factory made, must be reinforced (with rowing, plywood, etc.)
- protect your airplane against **hot** (it can cause material degradation). Please notice that dark surface can heat up to 90°C/194°F in sunny summer days!!

- use protecting coats (you can order them with kit or separetely via sales@krill-model.com email)
- please take into count that there are a lot of carbon fiber in your model, make sure that your receiver has full signal
- always use personal protective equipment (gloves, glasses and respirator)

KRILL model takes no responsibility for damages incurred during the assemblying, flying, using or transporting this model airplane.

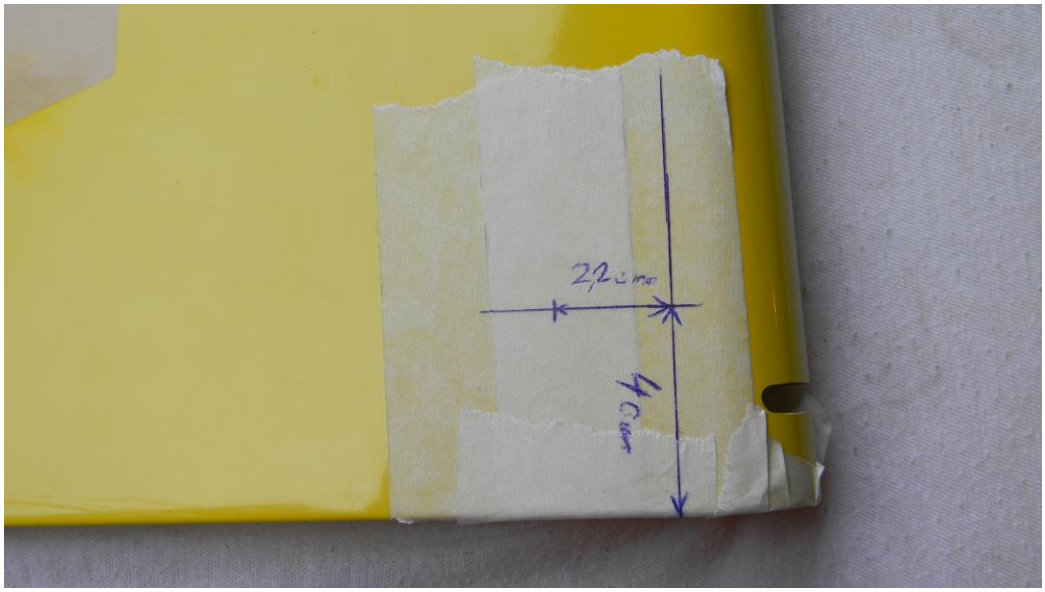
Content page

3. Assembly

3.1 Empenage

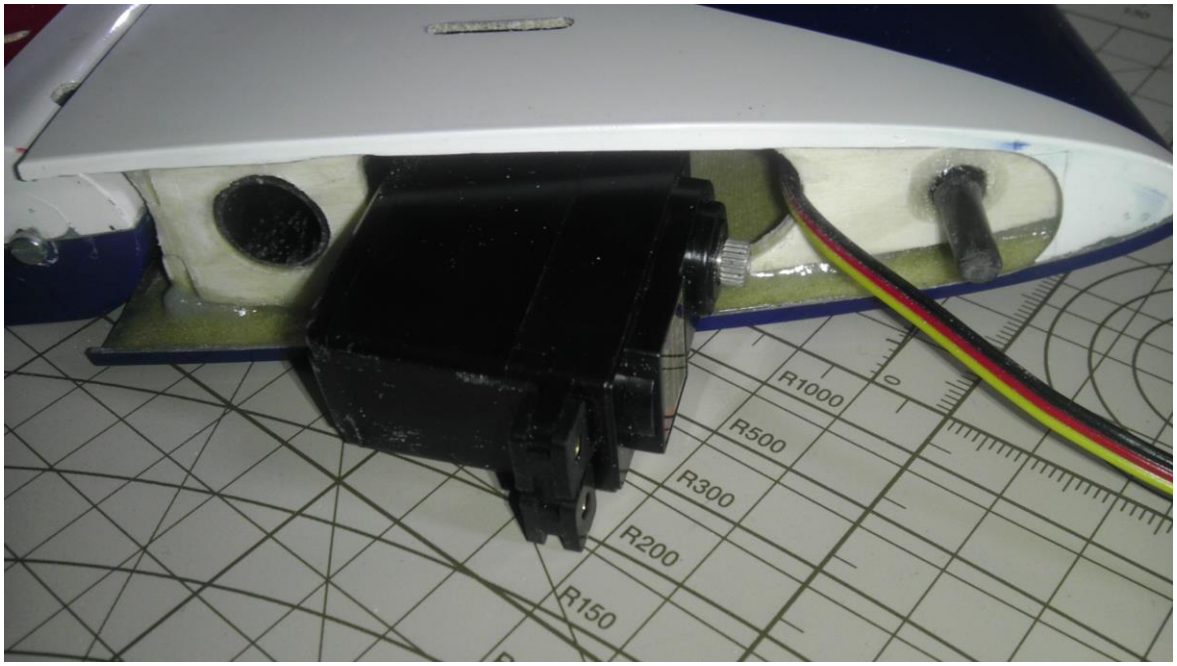
3.1.1 Rudder

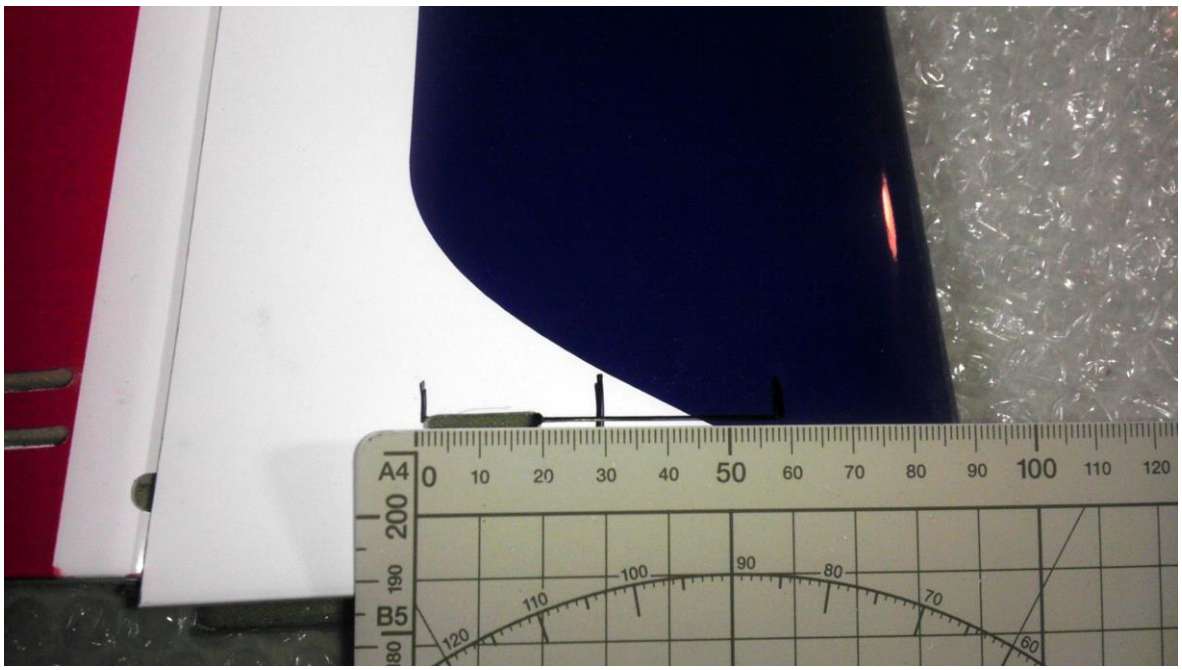
This picture only shows the placement of foam block. In your kit the holes is already drilled. The only operation is to glue levers (included in kit) with epoxy into the holes. For proper amount of glue please see chapter 3.2.

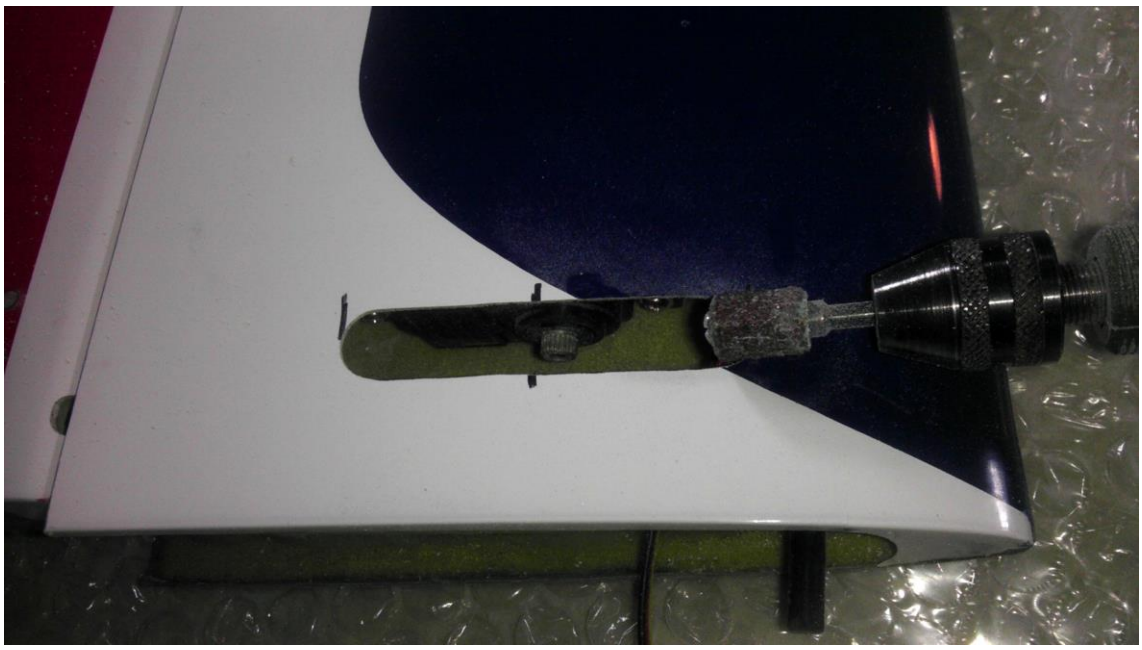


3.1.2 Horizontal stabilizator

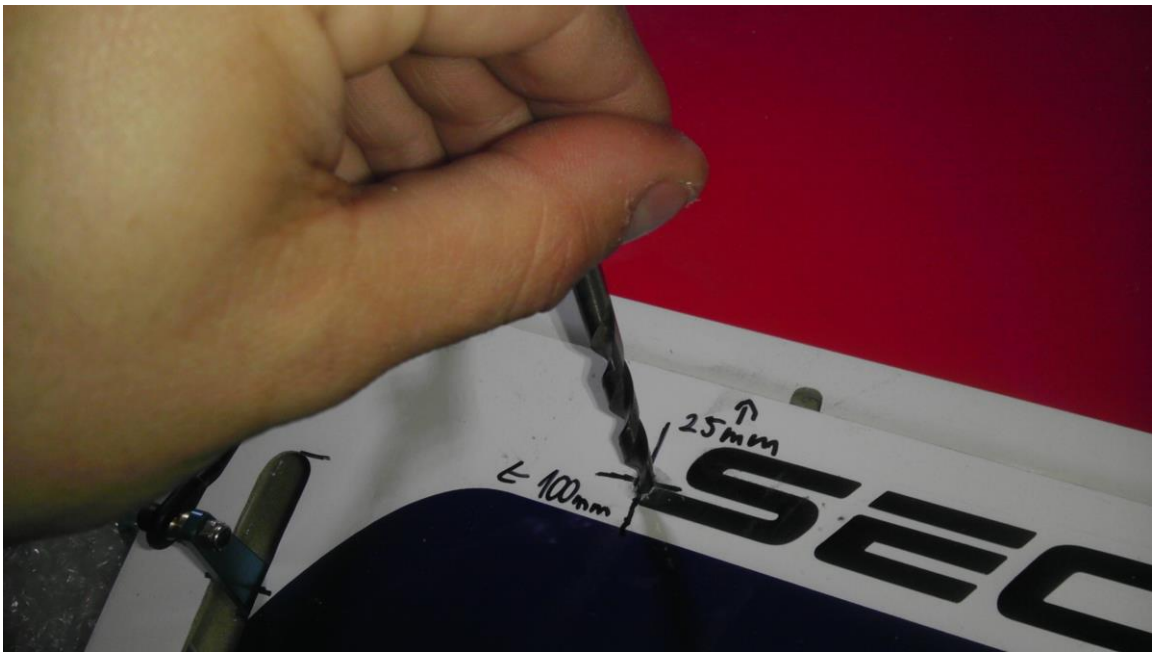
Two operation for horizontal stabilizators is needed. First is to place the servo and drill the hole for servo lever. Make sure that lever has enought space for full movement. Otherwise the lever can damage stabilizator surface!



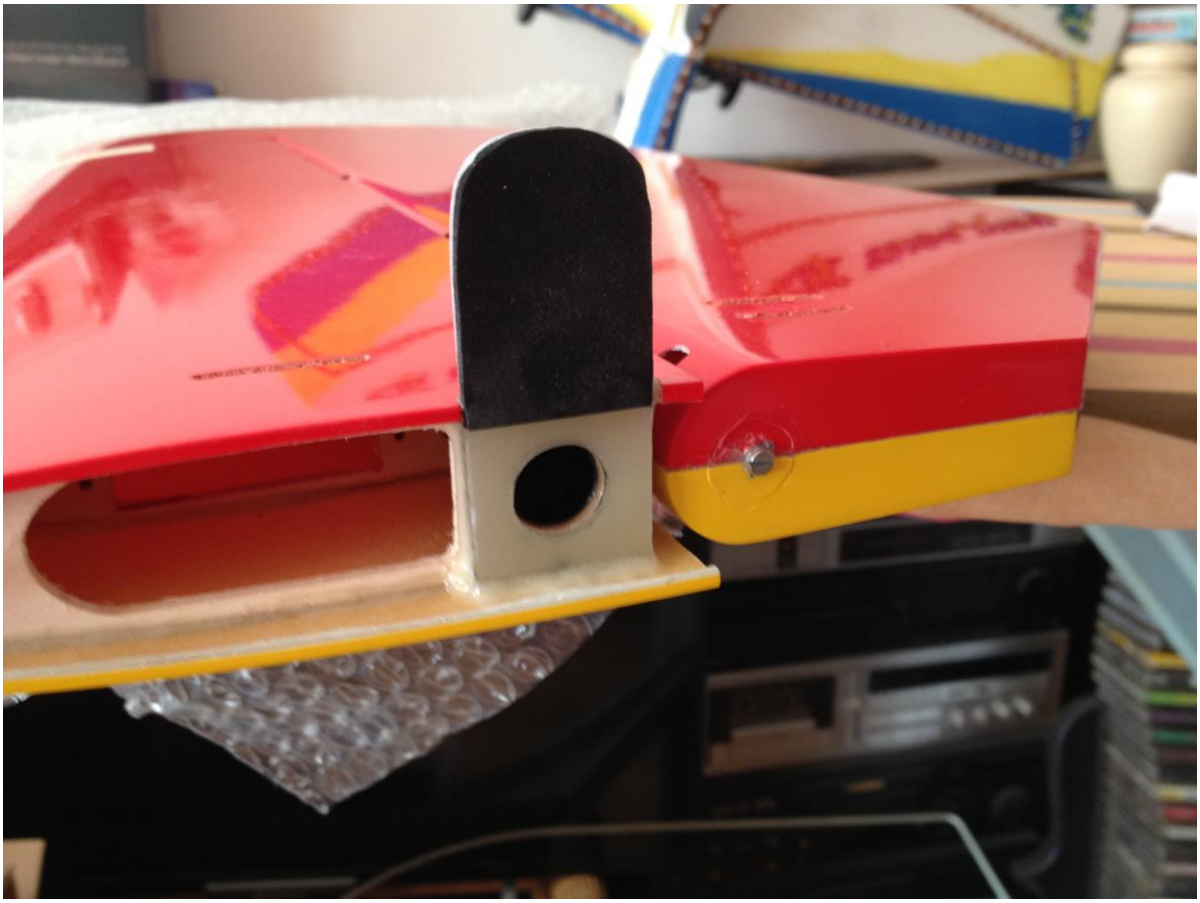




Second operation is to secure horizontal stabilizator against motion. This can be done two ways. First is to drill hole, which goes throught surface and carbon fiber tube (stabilizator spar). And place a pin (or screw) into this hole. This operation has to be done on both halfs!

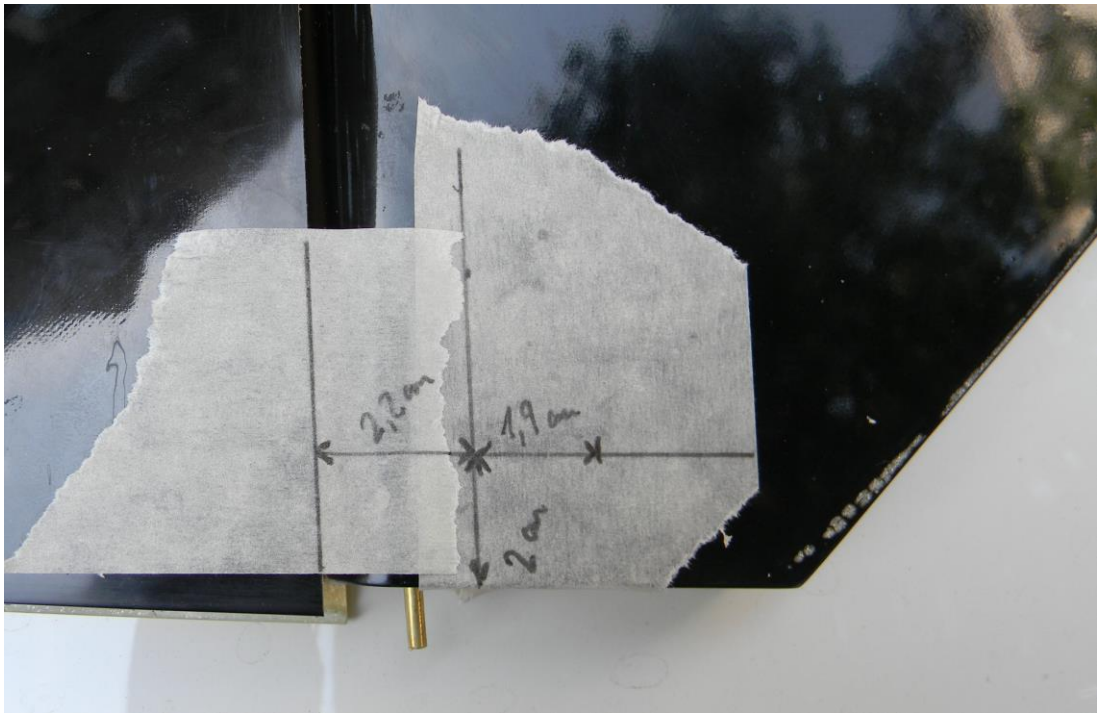

25mm
100mm

Another posibility how to secure horizontal stabilizator to fuselage.



3.1.3 Elevator

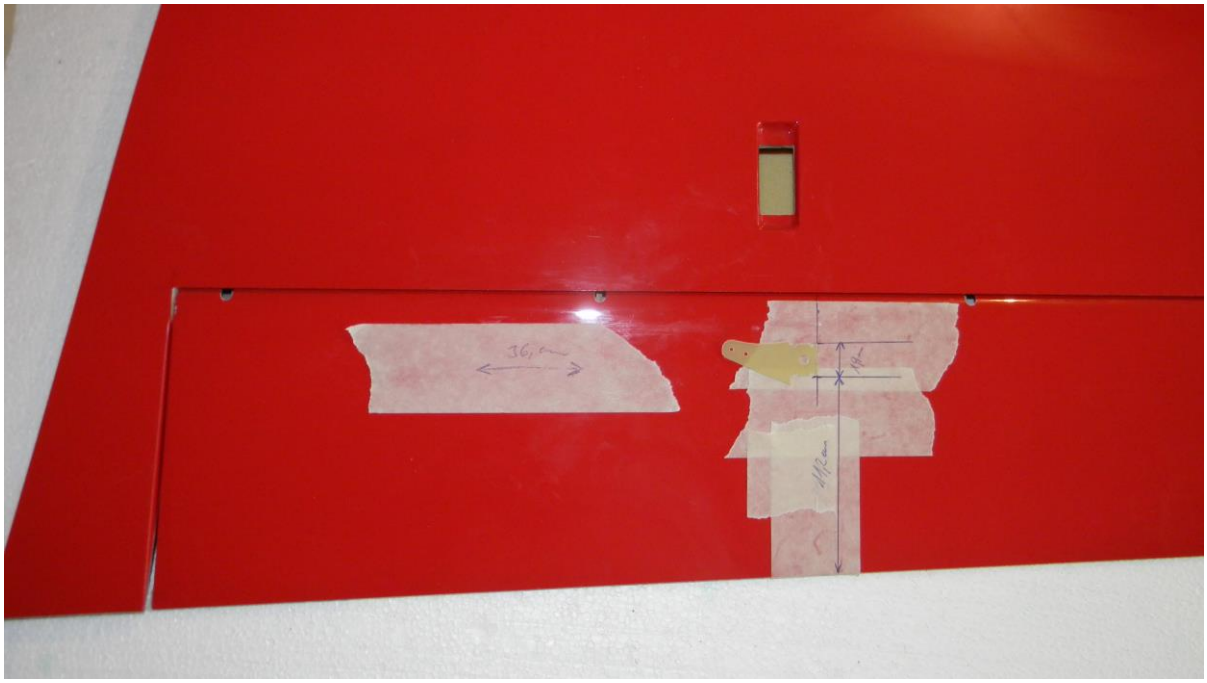
This picture only shows the placement of foam block. In your kit the holes is already drilled. The only operation is to glue levers (included in kit) with epoxy into the holes. For proper amount of glue please see chapter 3.2.



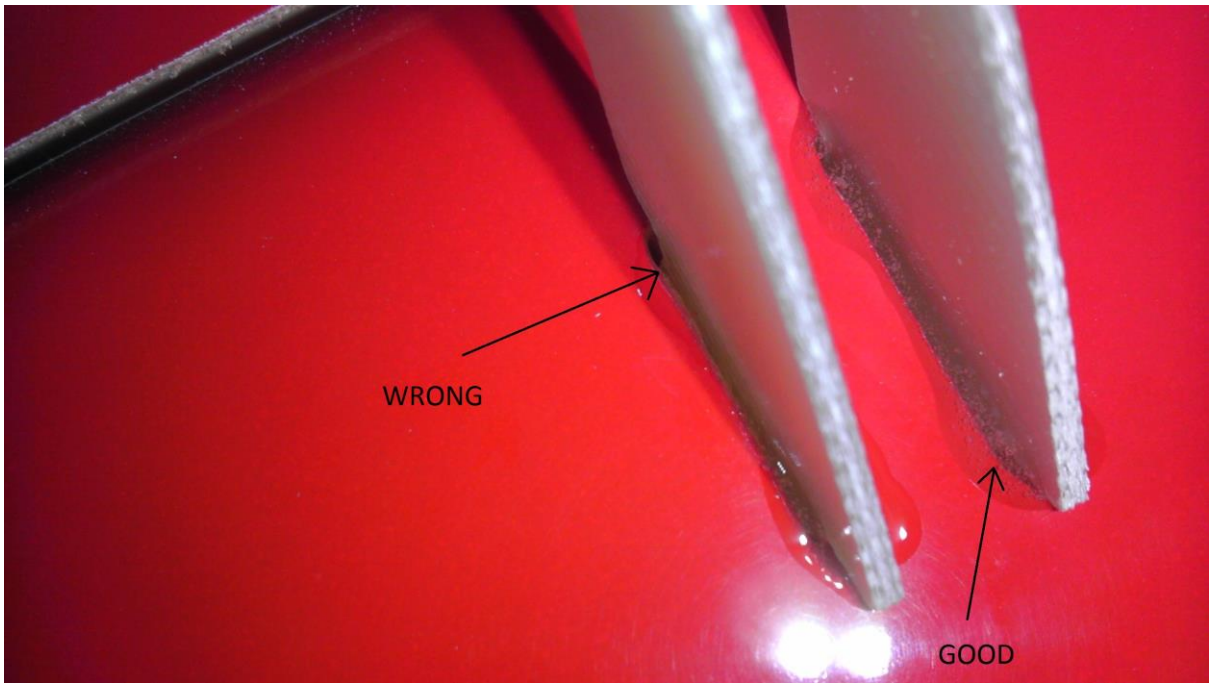
In this case 60 mm Secraft push rod has been used.

3.2 Wing

This picture below only shows the placement of foam block. In your kit the holes is already drilled. You need to glue levers (included in kit) with epoxy into the holes and install the servo.

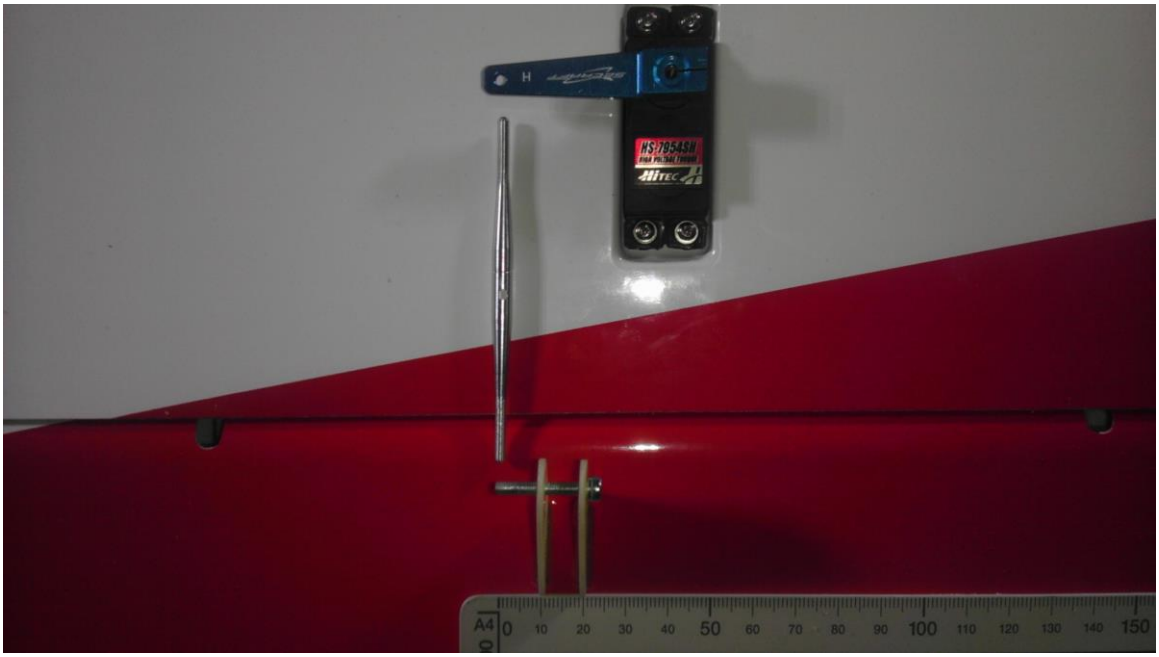


Proper amount of epoxy



Hole for servo need to be adjusted to suit your servo. 4 screws are also needed to install servo.

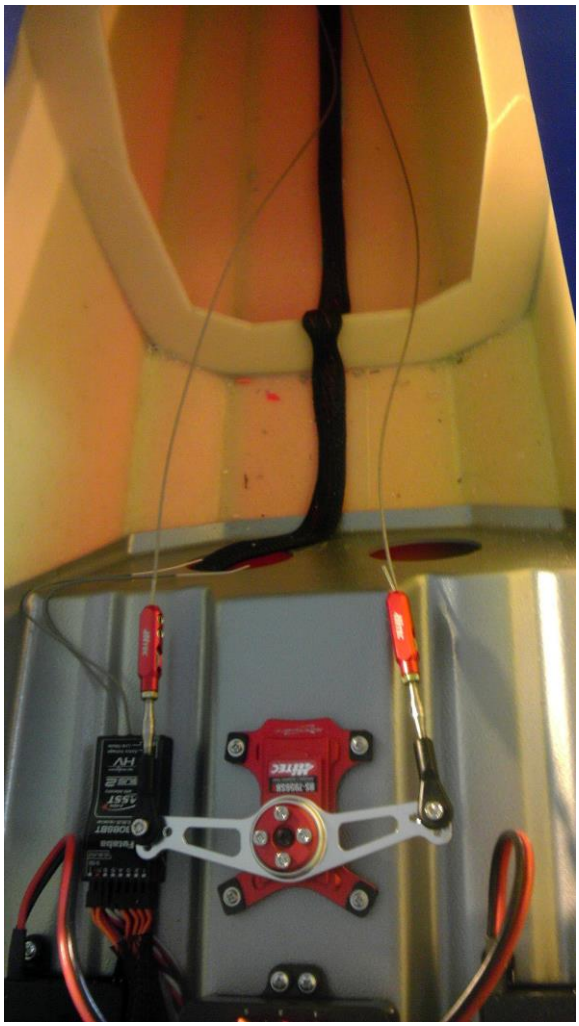
70 mm Secraft push rods has been used in this case.

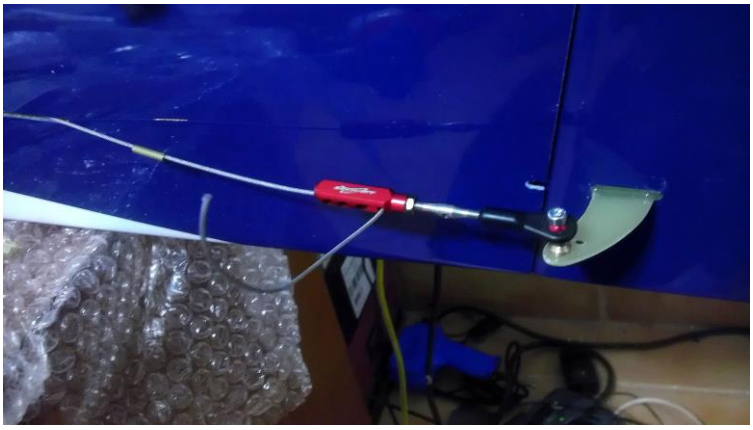


3.3 Fuselage

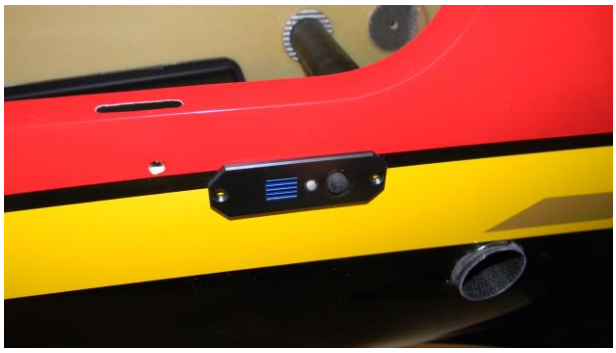
To finish the fuselage you need to install rudder servo, make holes for power switch, for elevator servos cables.

Servo installation. On left 4 pieces of 40 mm Secraft push rods has been used. NOTE: In a picture of rudder below is a prototype model, which has only one lever. Standard kits has two.





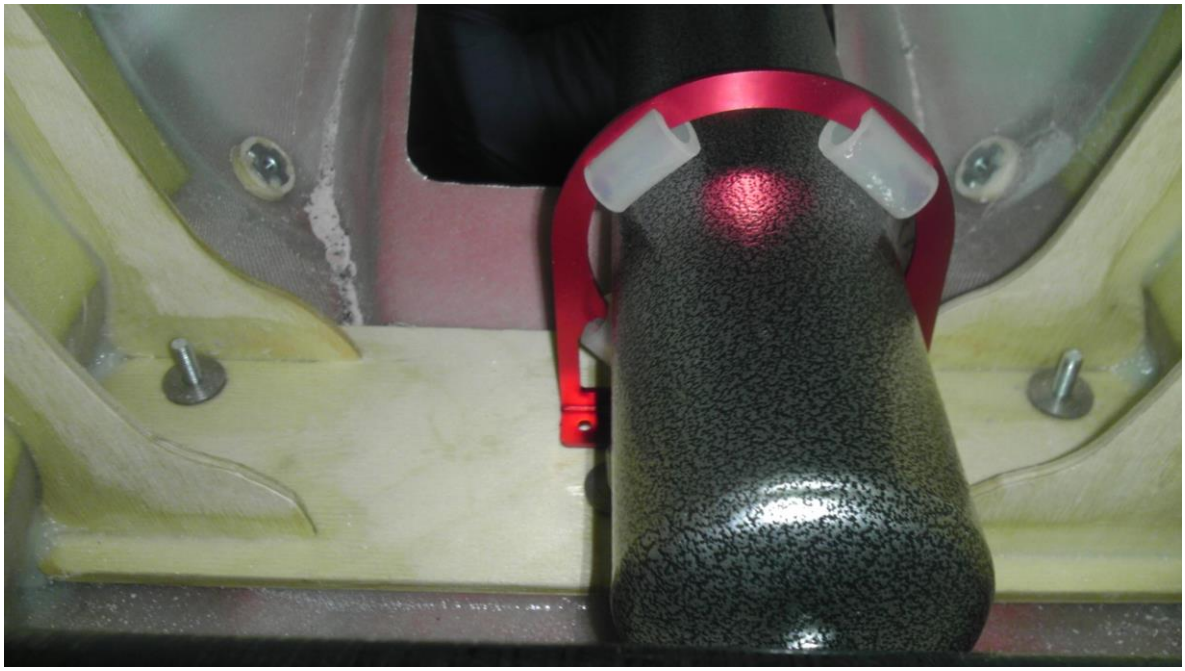
Power switch installatio. Please notice that the hole need to be reinforced.



Holes for elevator servo cables

3.3.1 Exhaust system

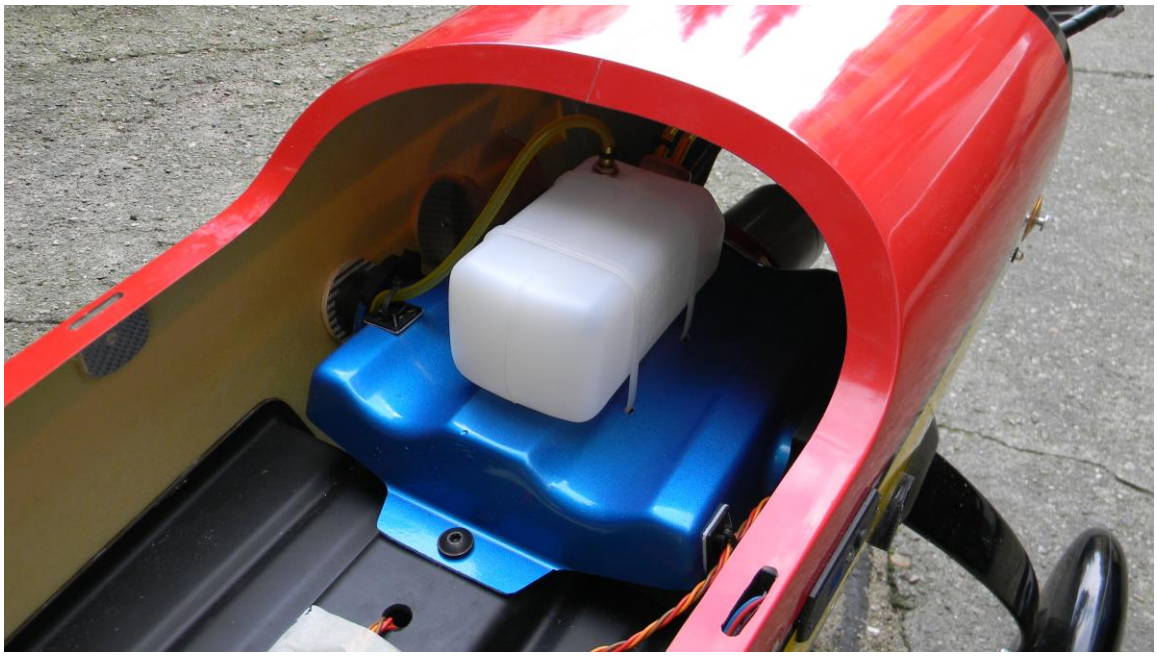
A hole for silencer is needed. Exact dimensions of hole depends on silencer type. We also recommed Secraft Silencer holder.



When silencer with rear exhaust pipe is used addition holes in fuselage is needed.

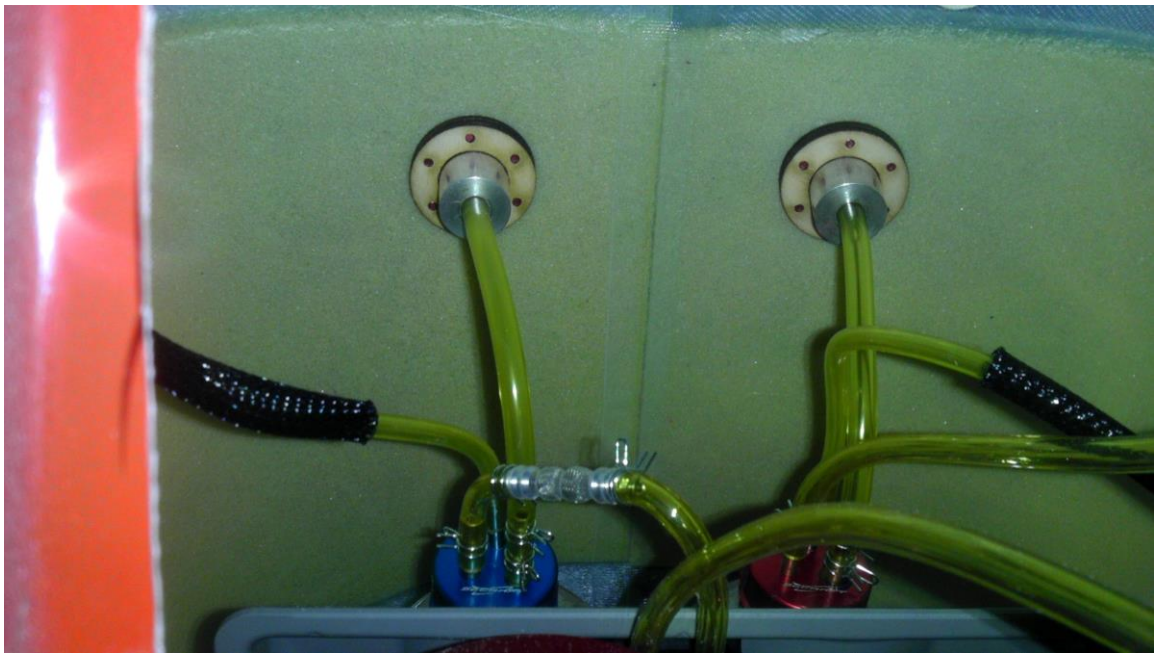
3.3.2 Fuel system

For recommended types of fuel lines please see your engine Owners manual.We recommed using ABS fueltank holder from our production and Secraft fuel dots and tank caps.



Fuel tank and smoke pump are tighted by cable ties.

Fuel dots installation

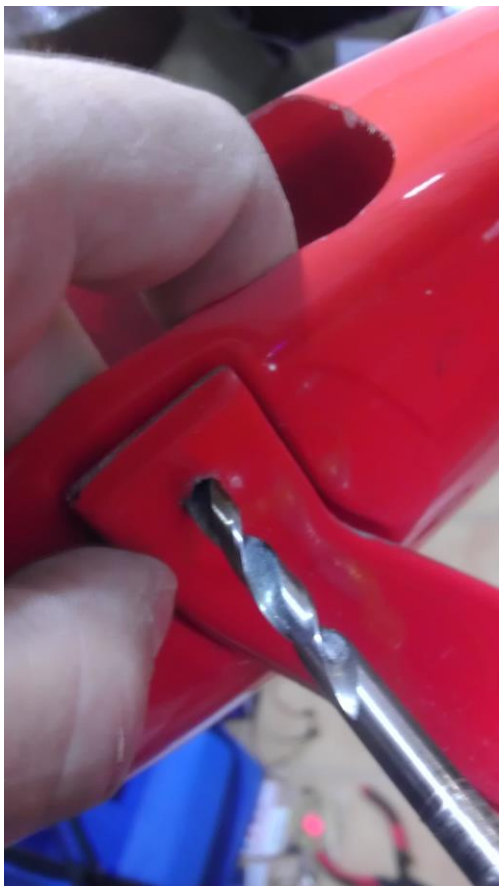


3.4 Landing gear

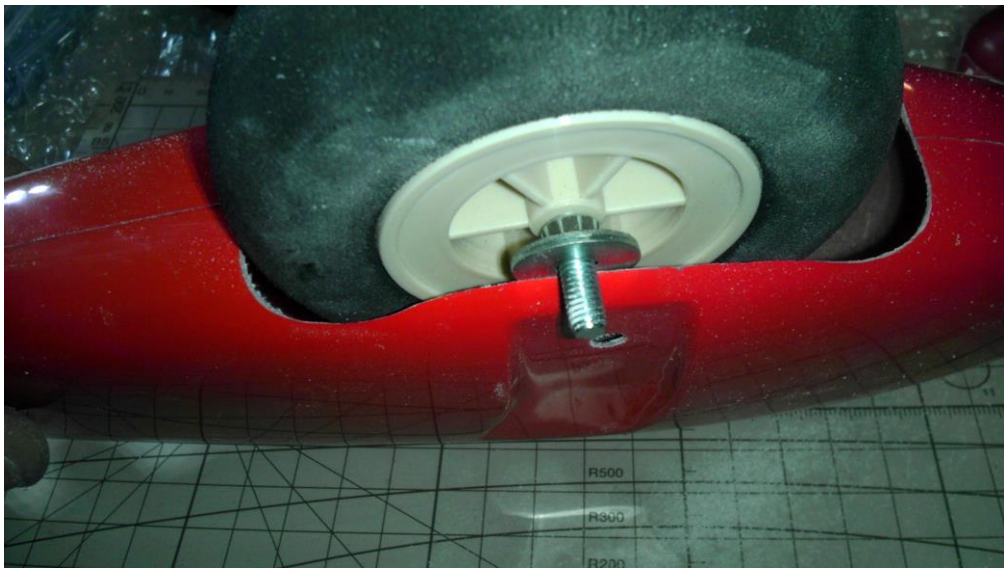
Main landing gear is screwed with three imbus screws to fuselage.

3.4.1 Wheels and wheel pants

Standard kit includes required hardware. Wheels are optional accesories. Holes for wheel axes has to be made in pants and legs. Landing gear leg and pants are made from composite.



Please use washers between pant and wheel



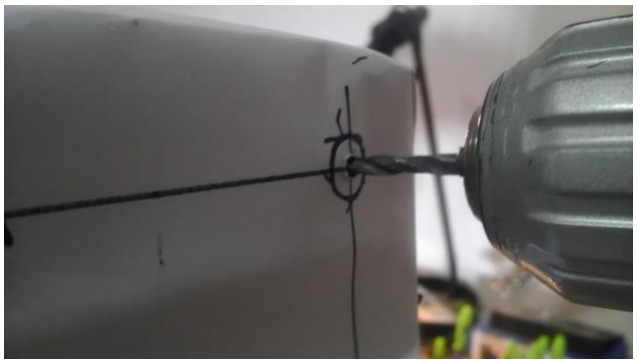
3.4.2 Tail wheel

In a standard kit is tailwheel not included. You could choose aluminium tail wheel or carbon fiber tail wheel as an optional accesories. Tail wheel is mounted only with two screws. Steering mechanism has to be connected to rudder to work properly. This could be done as shown on picture below or by connecting rudder lever with tail wheel spring.

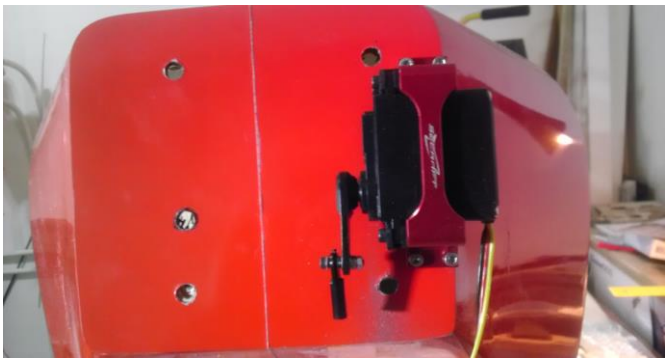
3.5 Engine

Images below shows how the engine installation could be done.

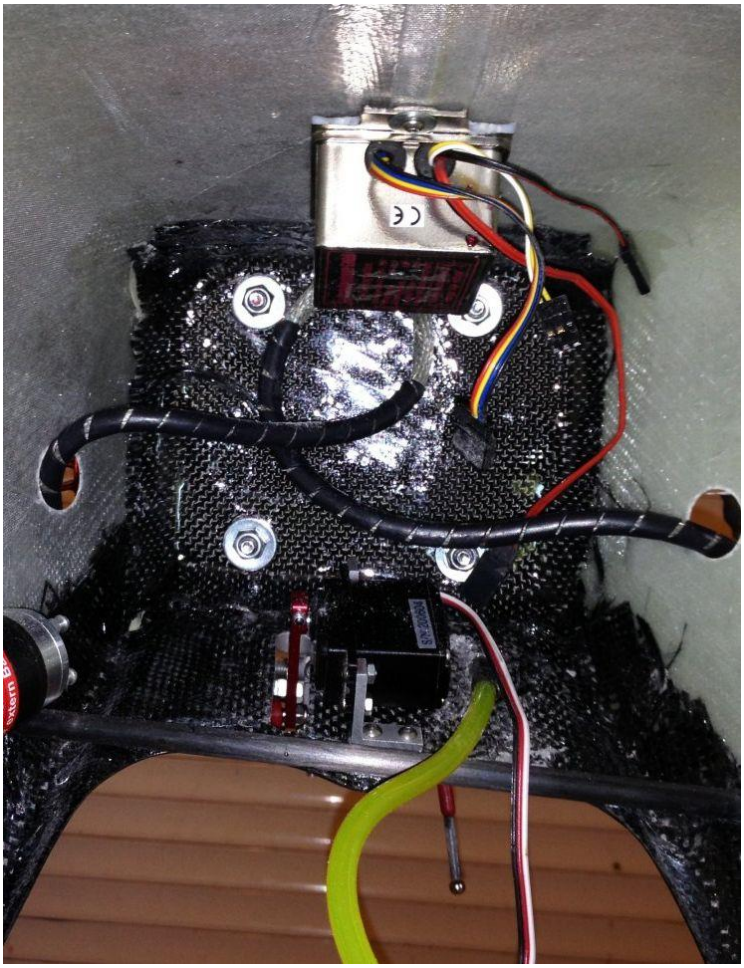

Use spinner plate to center the engine



Throttle servo could be placed on front or rear side of the firewall. We recommend Secraft Servo holder.



When installing the engine always use washers (steel or plywood) under nuts that holds it.

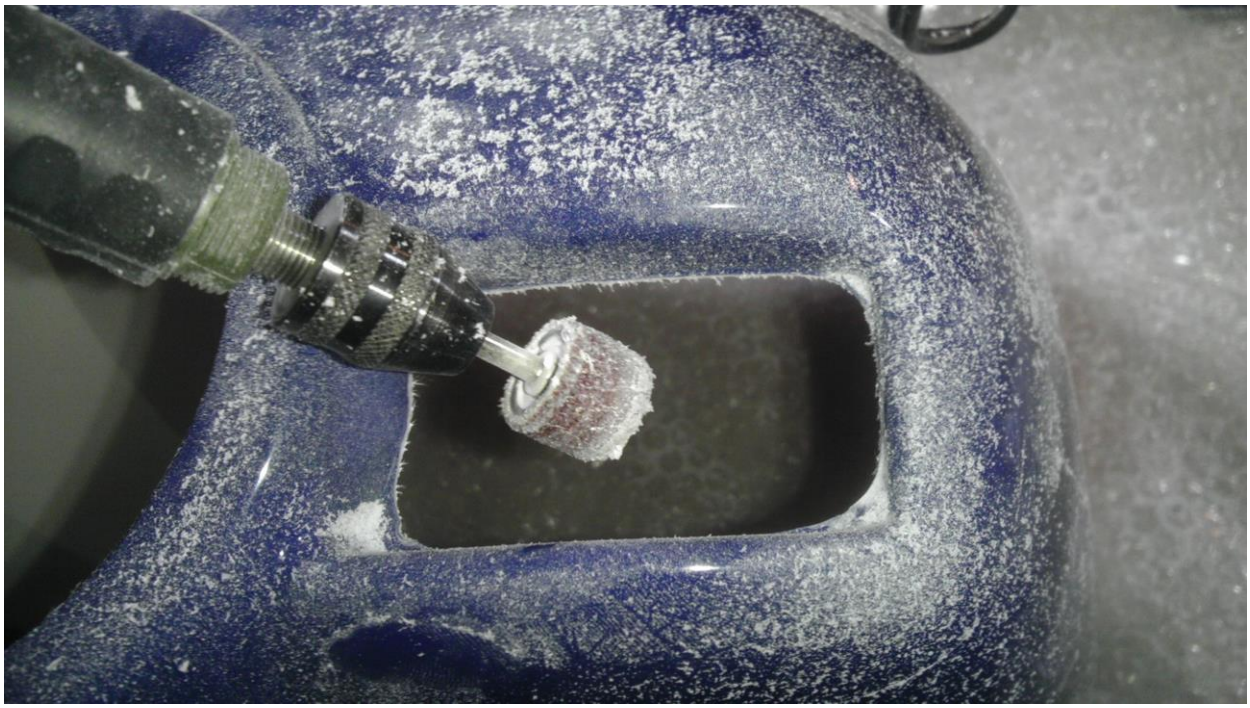


Note: For information about operating your engine please see your engine Owners manual.

3.5.1 Cowling

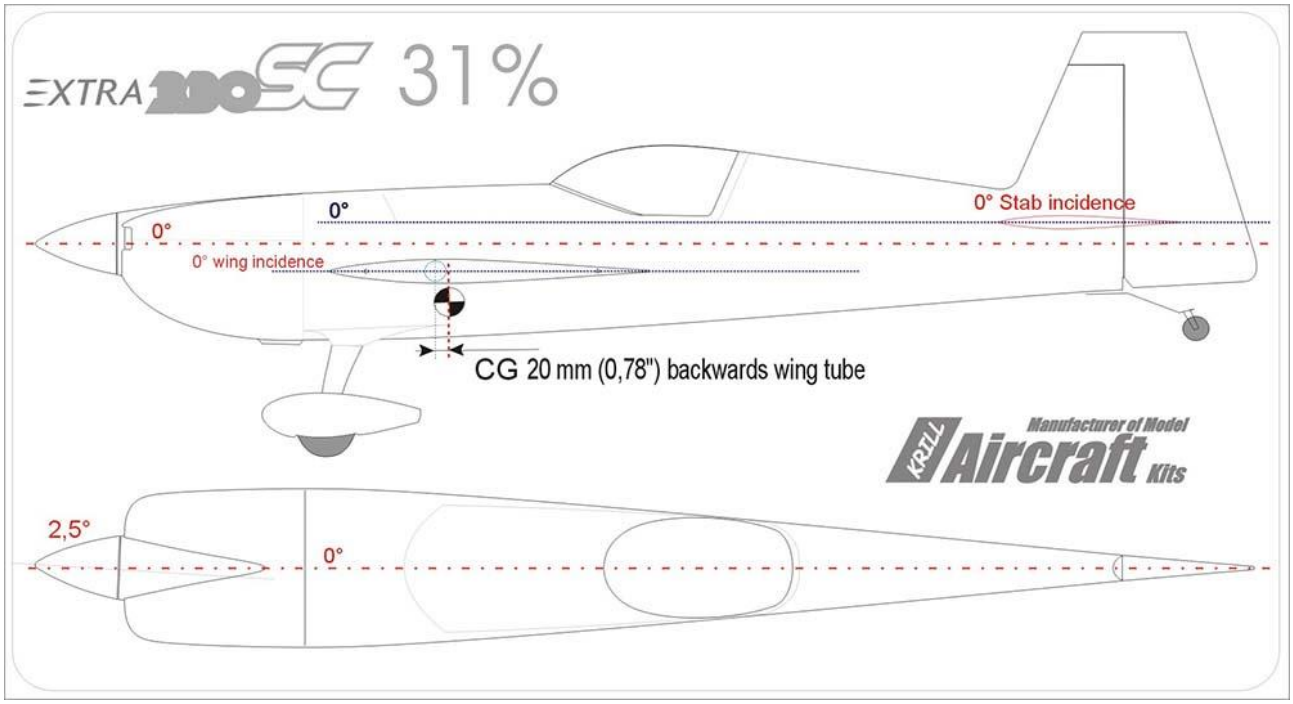
Installation width and length of cowling.

Cowling comes without holes for engine shaft and ventilation holes. Appropriate diameter could by done with spinner plate. Make sure that the hole is properly centered.



4. Recommended setup and settings

Center of gravity and incidence of wing, stabilizator and engine.



Recommended setup:

Engine		MVVS 58
Silencer		MVVS 3411 or JMB mufflers
Servo (6x)	Basic	DS8915 or DS8911
	High Voltage	DS8925HV or DS8921HV

Surface deflections and exponential depends on users habbits and skills.

For additional information about build you can contact us via sales@krill-model.com email or you can find plenty of build threads on the Internet.

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