

FALCON JET FIGHTER



RC Jet user manual

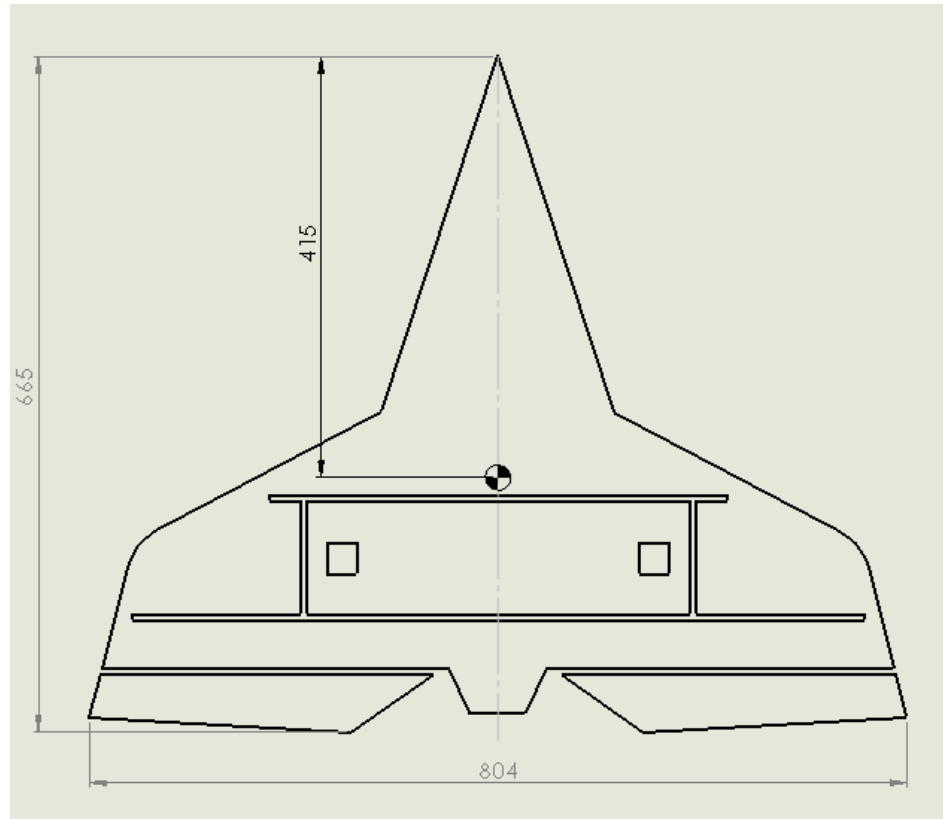
Cad Design by Gonalo Santos 9/2013

Free Plan – Can not be sold

Copyright FalconRC Setembro 2013

Introduction

This model is for those who like rc jets, scratch build and speed...



Wingspan: 80cm or 31in

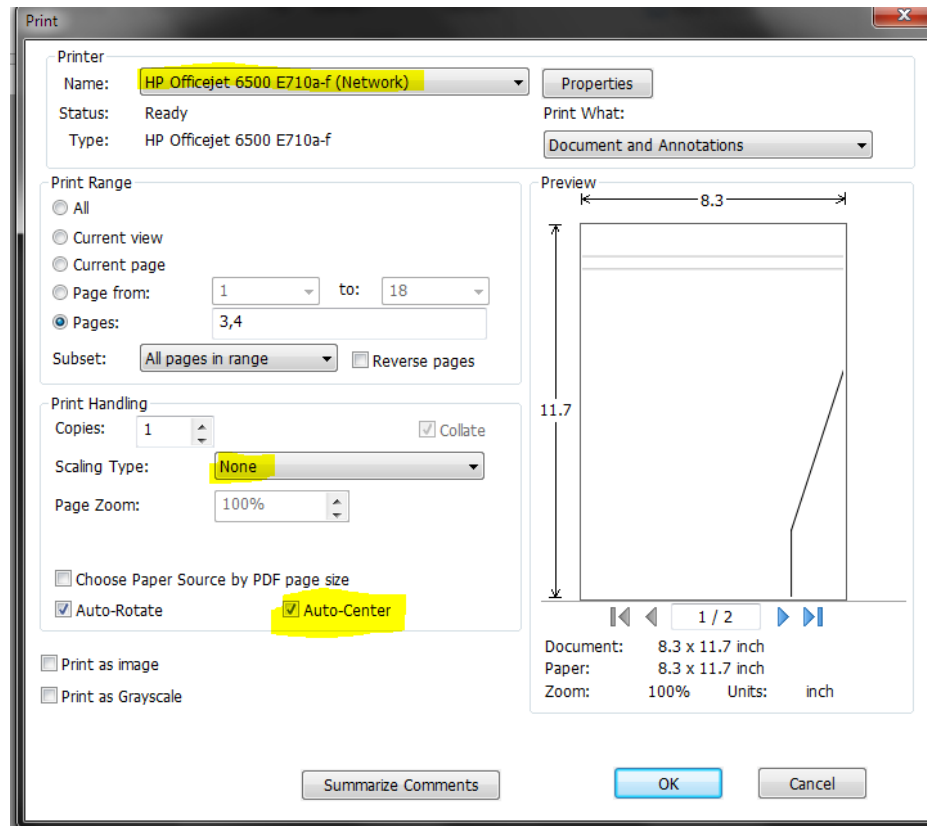
Length: 67cm or 26in

Weight: 1kg or 35 oz (Built with Blue Core Foam)

CG: 41,5cm or 16,3in

Material: 20mm EPP is the best (not available on Portugal unfortunately) or 20mm Blue core foam

Printing Instructions for A4 format



With the pdf reader “foxit reader” here are the instructions that you have to follow. I used this program because it’s very easy convert an A0 project for an A4 tiled and its free. If you use “adobe reader” it’s important to choose the option “actual size” for keep the original plane size.

Caution!

Radio-controlled models, and especially model aircraft, are by no means playthings in the usual sense of the term. Building and operating them safely requires a certain level of technical competence and manual skill, together with discipline and a responsible attitude at the flying field. Errors and carelessness in building and flying the model can result in serious personal injury and damage to property. Since we, *FalconRC*, have no control over the construction, maintenance and operation of your plane, we are obliged to take this opportunity to point out these hazards and to emphasise your personal responsibility. This plane should be launched via the side launch method or with bungee launcher for protect your body of fast spinning propeller.

Don't fly under the conditions below:

- Strong wind
- A street with many trees or street lamps
- Close to high voltage electrical wires
- High population density areas

Electronics for the Falcon Jet Fighter:

Standard configuration (~100mph, 800W)

Motor: Turnigy 2836 2350kv

Battery: 2200 mAh 4s 30C or higher

Propeller: 4.5x4.5 APC Style

ESC: 60A

Receiver: 3 channel

Servos: 2x MG 939 HK

High Speed Configuration (+++100mph, ~1250W)

Motor: NTM Prop Drive 28-36 3000kv

Battery: 2650 mAh 4s 30C or higher

Propeller: 4.75x4.75 APC Style

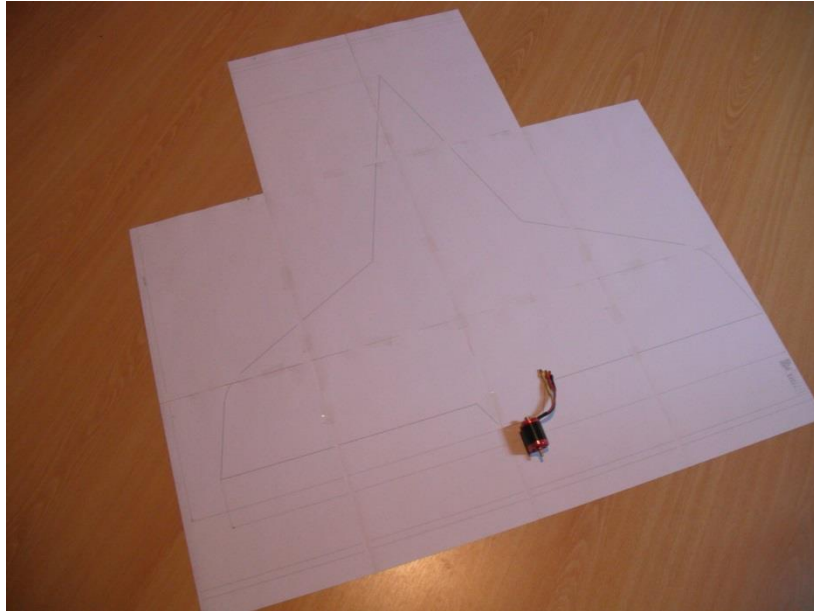
ESC: 100A

Receiver: 3 channel

Servos: 2x MG 939 HK

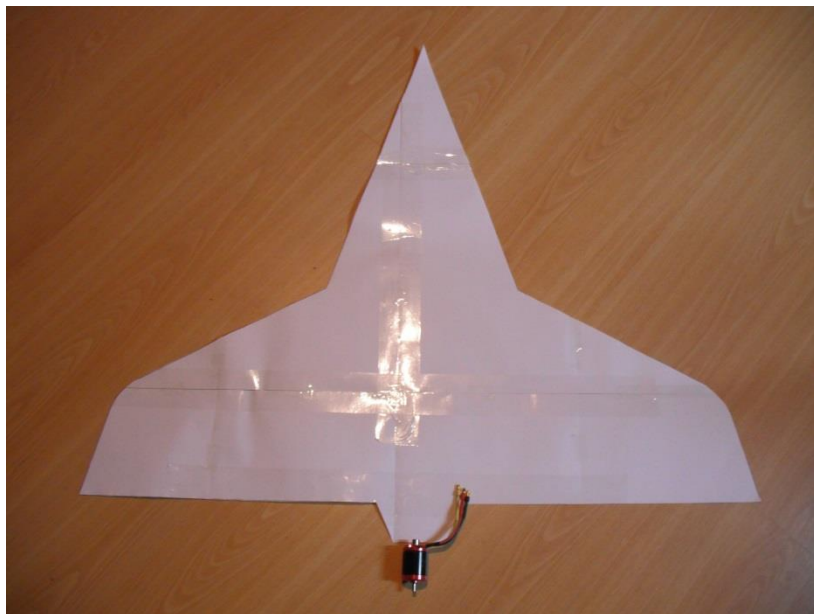
Building Manual

1



Print all sheets and put all of them together with tape

2



**Follow the plane lines with a scissors and this should what
you get**

3



If the EPP sheet or other material that you are using is not big enough you will have to make the nose on other piece and that glue it together. It's also the right time for sanding the excess material and make a symmetric airfoil on wing

4



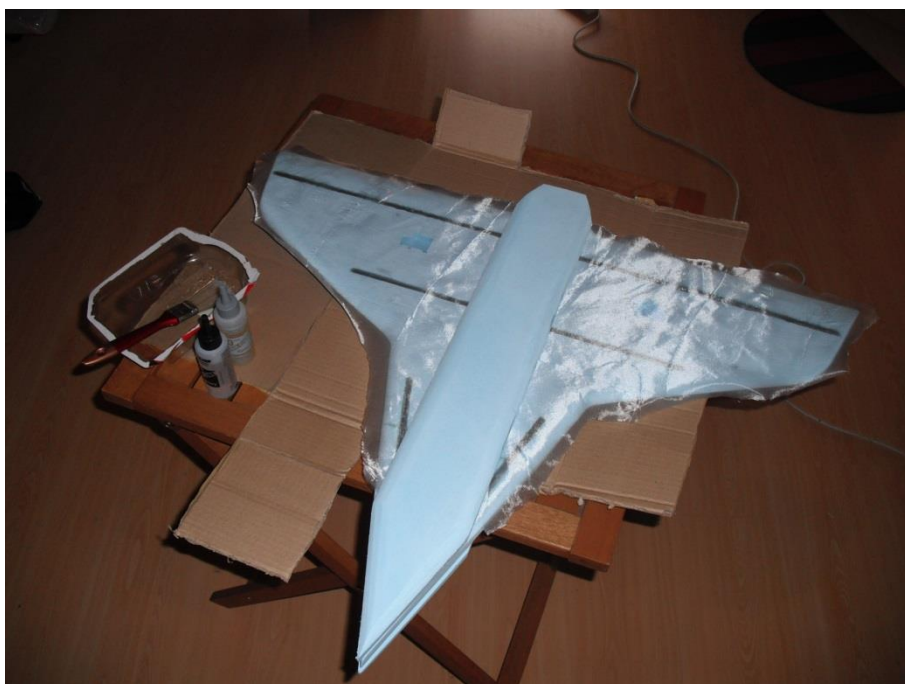
**Remove some material and install the carbon rods (all 6mm).
For better resistance you should use more two on the nose**

5



Cut two of this parts as you have on the plans and we are almost ready for add some fiberglass to Falcon Jet Fighter!!

6



For fiberglass the plane use Glass Fiber Cloth 18g/m2 (Super Thin) that you can buy on Hobbyking and Finish-Cure 20 min Epoxy glue.

7



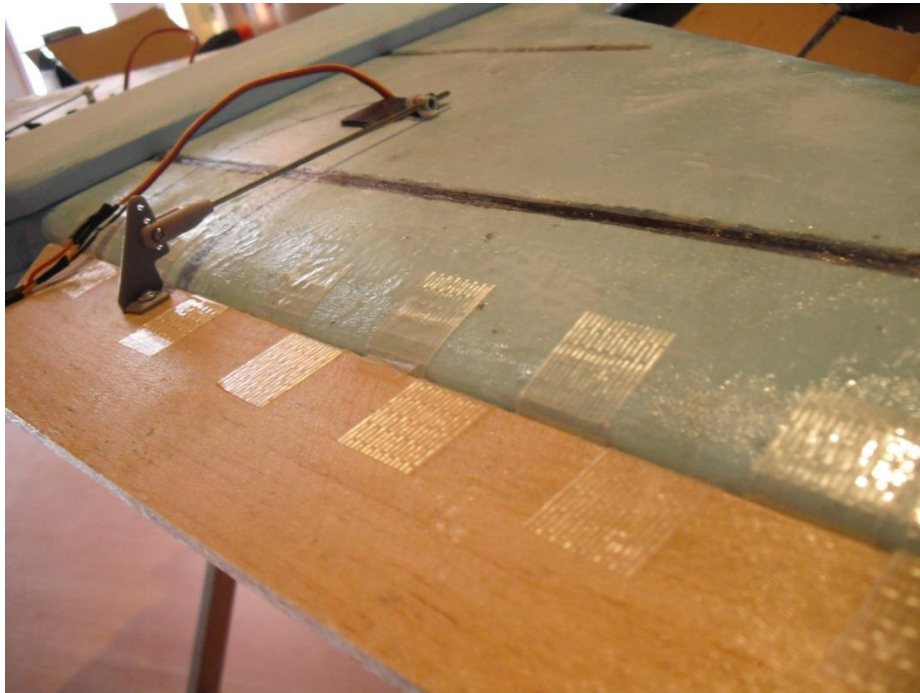
Do the same to the down side of the plane

8



Now it's time to install the elevons and servos and all links

9



**For Elevons I recommend this technique with fiberglass tape
for make the hinges**

10



Open the holes for install the motor mount

11



Make a simulation for you check here should be the battery for get the right CG and for after paint all plane also remove material for install all components.

12



**Please be sure that everything it's tapped, glued and secure
for don't have problems in the future**

13



**Protect the bottom side for resist to landing on harder
runways**

14



If the plane is all covered with fiberglass you could paint it with acrylic paint or if not with water base paint. You could use colored tape for make it look also nice and shiny in the sky and ground.

15



Now that it's painted on both sides you can add the vertical stabilizers also already painted too. I did it only in the end because

they obstruct too much when you need to work on the bottom side.

16



This is how my plane looks. Now you have to install all electronics that are missing and remove some material for do it.

17



And it's done! The canopy you could make on composite material, vacuum machine or just buy one in a local hobby shop.

Happy high speed flights to everyone!