



Predator Sport Jet 126"

USER MANUAL

WINGSPAN:2905mm

LENGTH:3200mm



Introduction

- Thank you for purchasing our Predator Sport Jet plane. we strive to achieve a good quality quick build ARF aircraft .

It requires the least amount of assembly of any ARF kit to obtain the maximum performance.

- Both the design and manufacturing have been undertaken to the highest standards, using best quality hardware, covering, wood & glue during factory construction stage.
- By optimal weight and balance along with reliable construction, you will find this plane ideal for flying.

We hope that every effort and service we offer will, in turn, give you confidence using PILOT Models.

- Have a wonderful time flying your aircraft in a suitable safe space!

Warrant

- All Pilot-RC products are guaranteed against defects for 30 days of receiving your airplane. This warranty is limited to construction or production defects in both material and workmanship , it does not cover any component parts damaged through use or modification .

- The manufacture cannot supervise the assembly, operation or maintenance, and is not responsible for radio malfunctions. Please ensure your radio system is in good condition.

We are not responsible for any accident or damage while using this product. It is impossible to determine for certain whether crash damage was the result of improper installation of our products, a radio system failure, or pilot error. Model airplane owners use our products at their own risk.

- Pilot-RC will not be liable for any costs, unless agreed and proved beyond doubt the failure was due to faulty materials or fabrication. Any agreed cost will not exceed the cost of the airframe and not include engine, radio equipment or third party claims.
- Should you wish to return a product or receive replacement parts, all shipping cost must be paid by the customer.

Attention

1. **Do not regard this plane as a toy!**
2. To ensure safety, please read the instruction manual thoroughly before assembly.
3. Building and operating an RC Plane of this nature requires previous experience and competence to an experienced level. This plane is not for a beginner!
4. If you are in doubt have an experienced pilot at hand. Diligent practicing and correct guidance is essential, accidents can cause bodily harm and property damage.
5. Seek assistance from an experienced person or airplane model clubs in assembly, operation and maintenance to ensure successful training.
6. **Fly only in a registered RC model club airfield** that is approved by your local Academy of Model Aeronautics (AMA).

- Pilot-RC has the right to revise the plane, the instructions and the limited warranty without notice. If you have any problems and questions please contact Pilot –RC:

Email: pilot-rc@139.com , info@pilot-rc.com

Phone:+86 760 88781293

FAX: +86 760 88780293

Address: No.34, Chengnan Er Road , Zhongshan city, 528400, Guangdong Province, China

Install kit contents

Install kit contents:

(Some contents like fuel tank etc... has already installed in fuselage)

Aluminum tube



Accessories pack:



Install kit contents

Accessories pack includes:

Socket head cap screws

Counterstunk cross screws

Cross round head with medium screws

Tapping screws

Hexagon screw in metric system(SHCS)

Battery bandage

Servo aluminum angle

Metric Allen Wrench

Push rot wrench

Wring clamp

Crowbar

Push rot

Oil nipple suit

Extension cord (Include 4 in 1 and 3 in 1 extension cord)

(Some of accessories like screw/cord ect... isn't in this accessories pack)

OTHER ACCESSORIES NEEDED TO COMPLETE:

Epoxy Adhesives

Cyanocrylate adhesives

X-Acto and Saw knives

Sandpaper

Thread lock

Aircraft stand or support

Install kit contents

Landing gear module(optional):

Landing gear

Pilot landing gear controller



Servo module(optional):

Servo:

PY20AH

Servo arm:

Pilot Futaba aluminum alloy 1.2"



Landing gear assembly

Landing gear assembly:

Retract Landing Gear Installation, Predator Jet come with electric-landing gear and brakes.



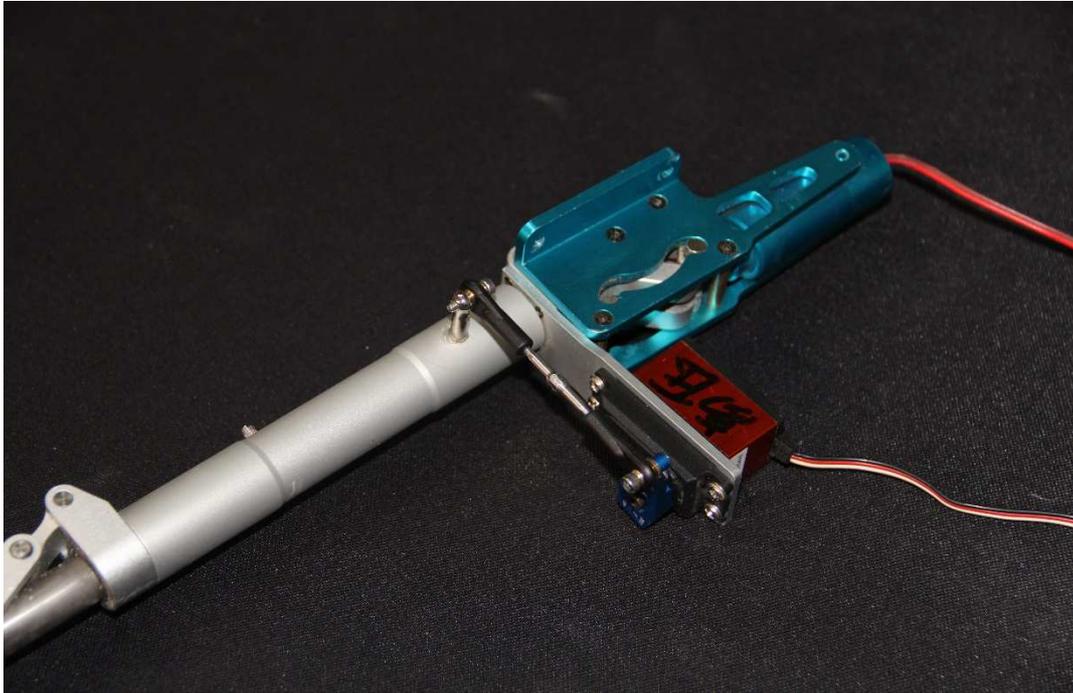
We suggested use PilotRC Brake controller for your Predator, it can provide independent brake voltage, more powerful and reliable.

Note: The brake controller support power is 7.4V-25.2, we suggest use 11.1V for support power.

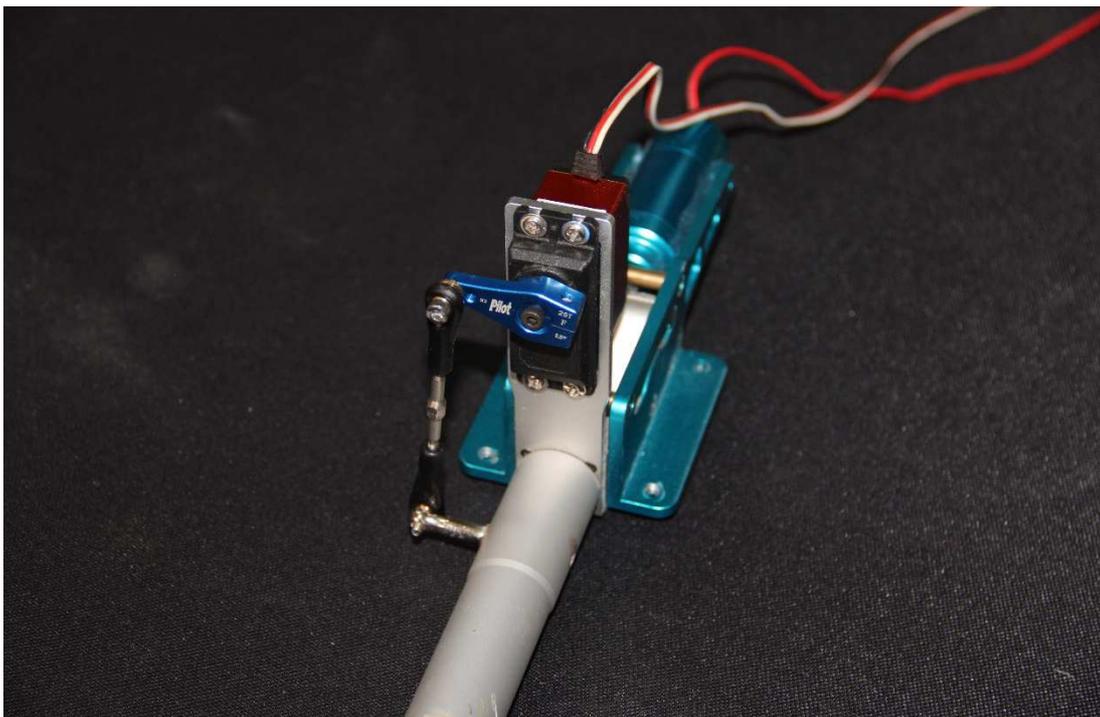


Landing gear assembly - nose

1: Install the servo to the nose landing gear.



2: Install the servo arm and the push rod. Adjust it to make sure the plane can go straight approx. You still can adjust by radio after install it.

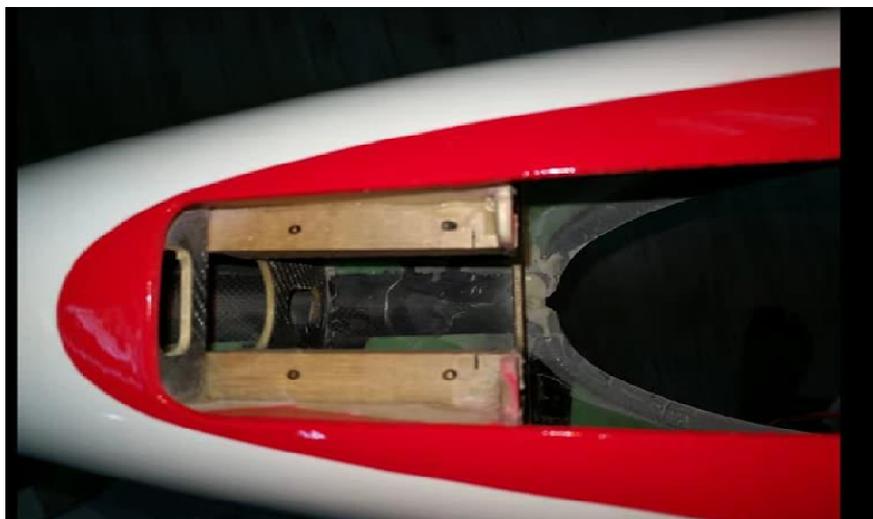


Landing gear assembly - nose

3: Place the nose gear to the mounting and adjust it to the correct position, then mark the 4 mounting screws hole.



4: Before you drilling the mounting screws hole , please make sure there is nothing to get stuck when it open and close.



Landing gear assembly - nose

5: This is how it looks like after installation.



6: Carefully arrange the nose gear retract wire lead and the steering wire as well ...



7: Install the nose retract gear to the fuselage.

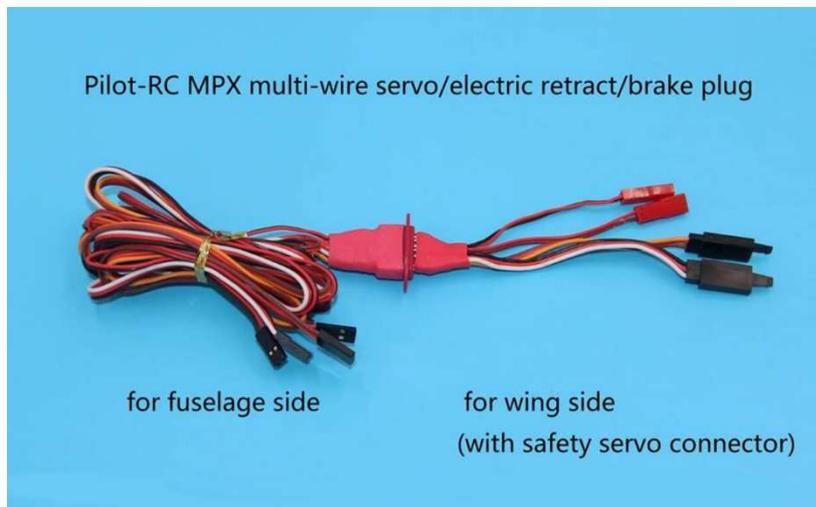


8: You can use the gear control box to operate the landing gear open or close **without** your radio TX.

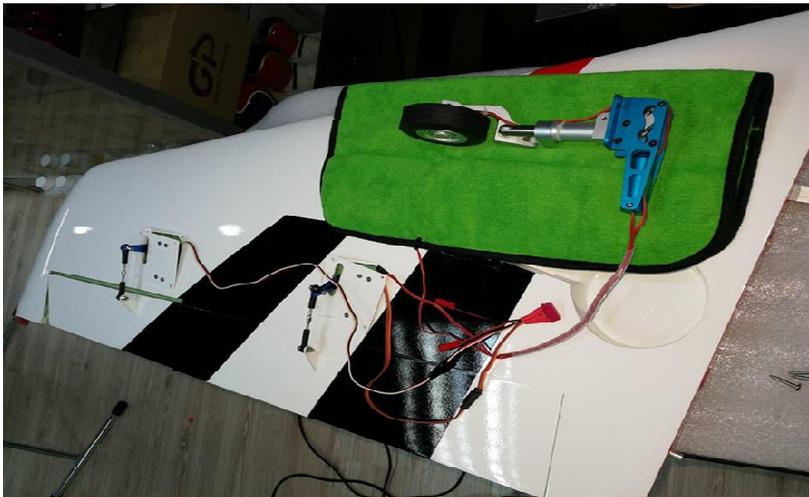


Landing gear assembly - main

Recommend to use this 4 in 1 MPX style connector from Pilot-RC.



1. Connect all servo / landing gear / brakes wire.



2. The multi connector 4 in 1 out from the opening hole...

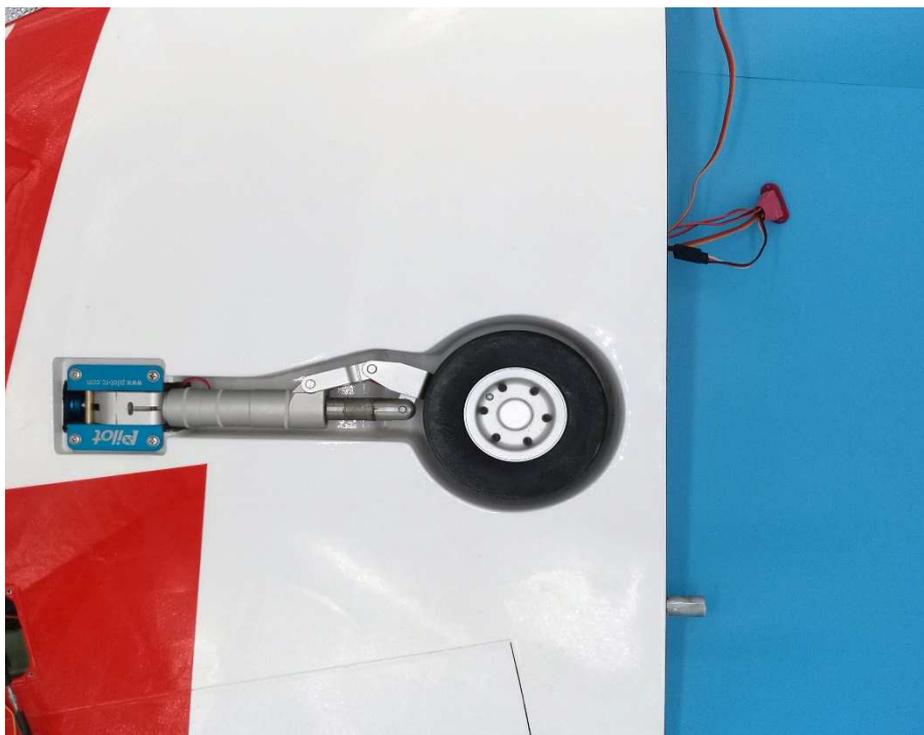


Landing gear assembly - main

3. Double check the positioning of your gear before drilling any holes. Make sure that the gear movement is free of any obstacles.



4. Remove the gear and carefully drill the holes to accept your chosen screws. We recommend the use of bolts and blind nuts, however wood screws can also be used as a "failure point" in case of a hard landing.



Wing Servo/Flaps Assembly

The control horns are pre-installed at the factory, ready for use.



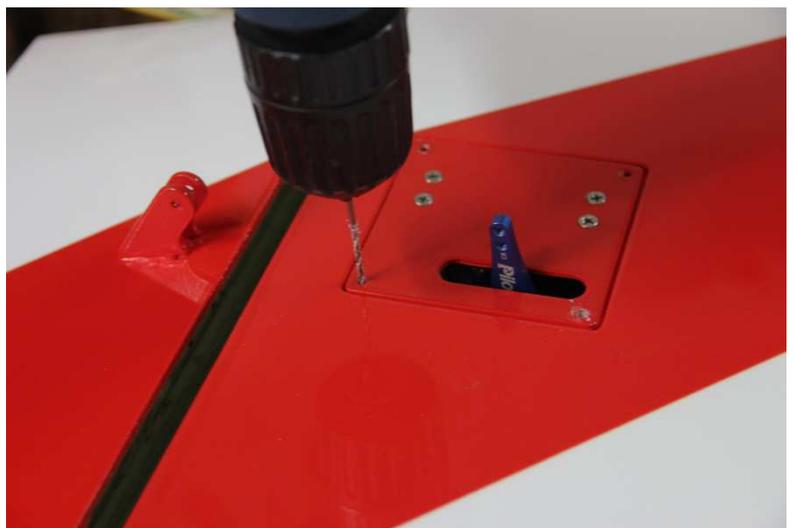
1. Screw the servo to the included aluminium L shaped brackets, then install the servo arm on to the servo, making sure that this is centred



2. Place the servo over the servo plate making sure that the arm moves freely within the provided slot, and mark out the placement of the four screw holes

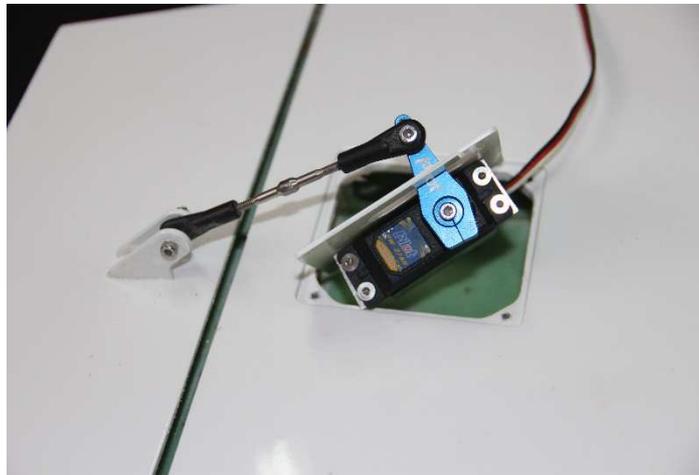
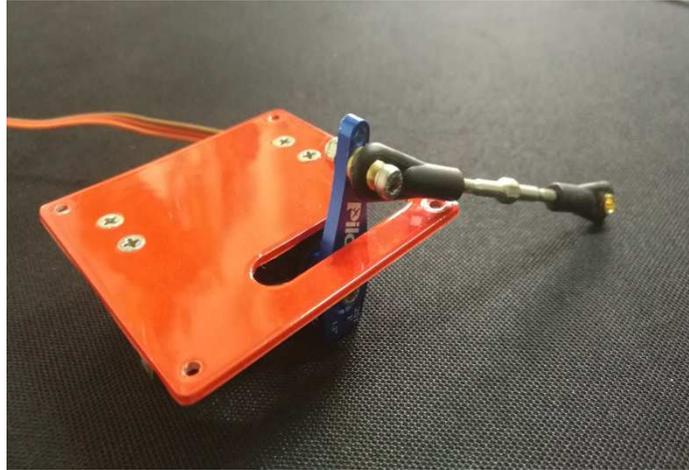


3. Drill out the four holes in the plate, then securely screw the servo to the inside of the plate using the metal screws provided

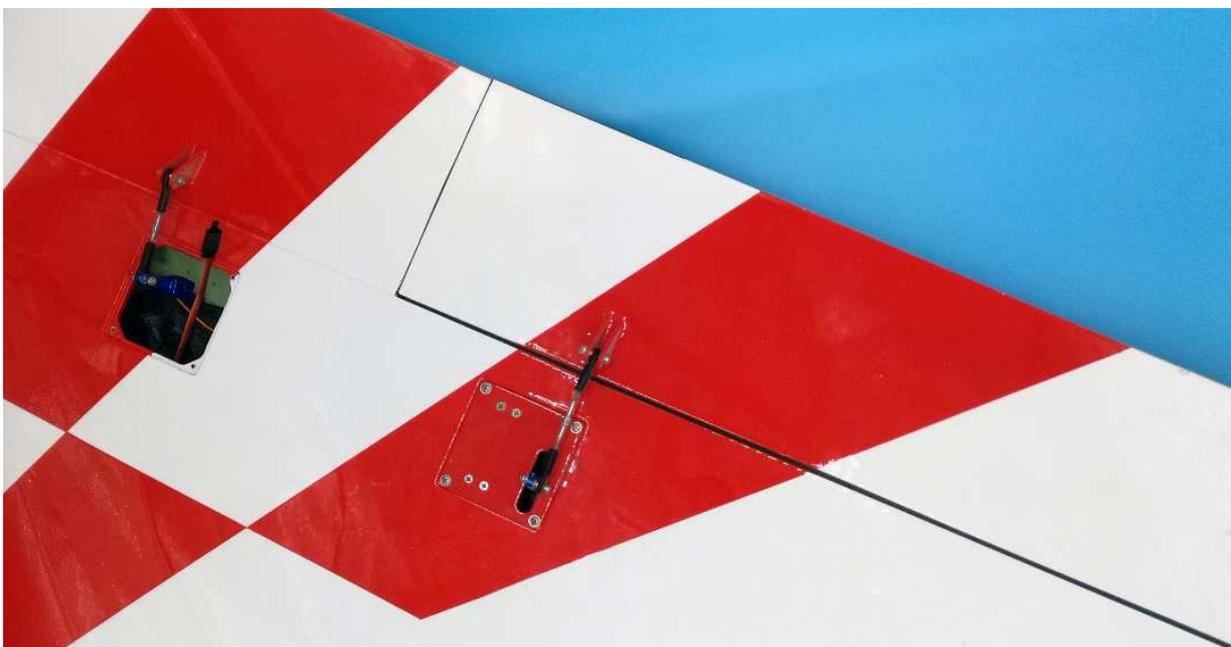


Wing Servo/Flaps Assembly

4. Attach the included pushrods and ball links between the servo arm and the control horn.



5. Route the servo wire through the inside of the wing toward the fuselage, before securely screwing the servo plate to the wing with four wood screws



Wing Servo/Flaps Assembly

Aileron servo / Flaps servo / Gear installed



6. Use a thin ply as a back plate and installed the 4 in 1 connector, use 5 min epoxy to glue it from inside of the fuselage.

7. Just one connector for aileron/flaps/landing gear/brakes.

One side of the connector can be screwed to the fuselage, while the other is left inside the wing, loose, for easy connections.



Elevator/ Rudder Servo Assembly

Rudder servo assembly



1. Insert the servo into the rudder, in its allocated slot, with the servo shaft closest to the rudder.



Elevator/ Rudder Servo Assembly

2. Screw the servo in place, and then install the servo arm on to the servo, making sure that this is centred. Attach the included pushrods and ball links between the servo arm and the control horn.



The rudder extension wire connector.

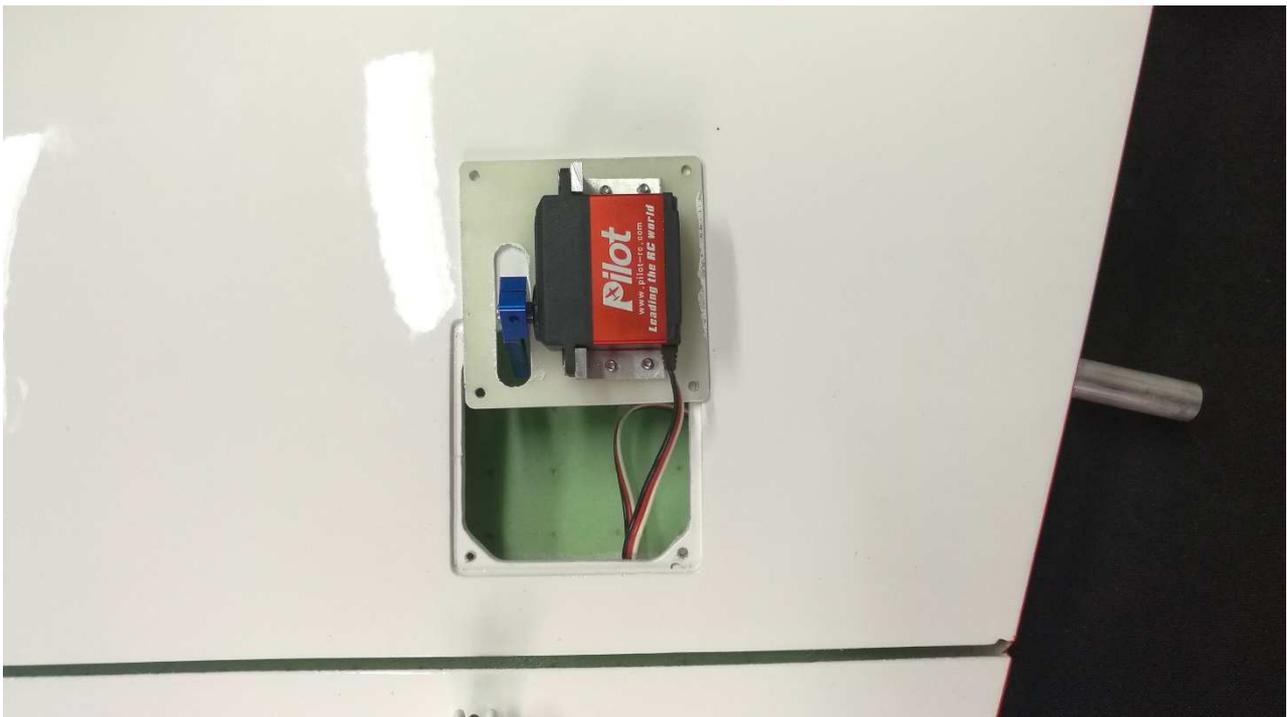


Elevator/ Rudder Servo Assembly

Elevator servo assembly

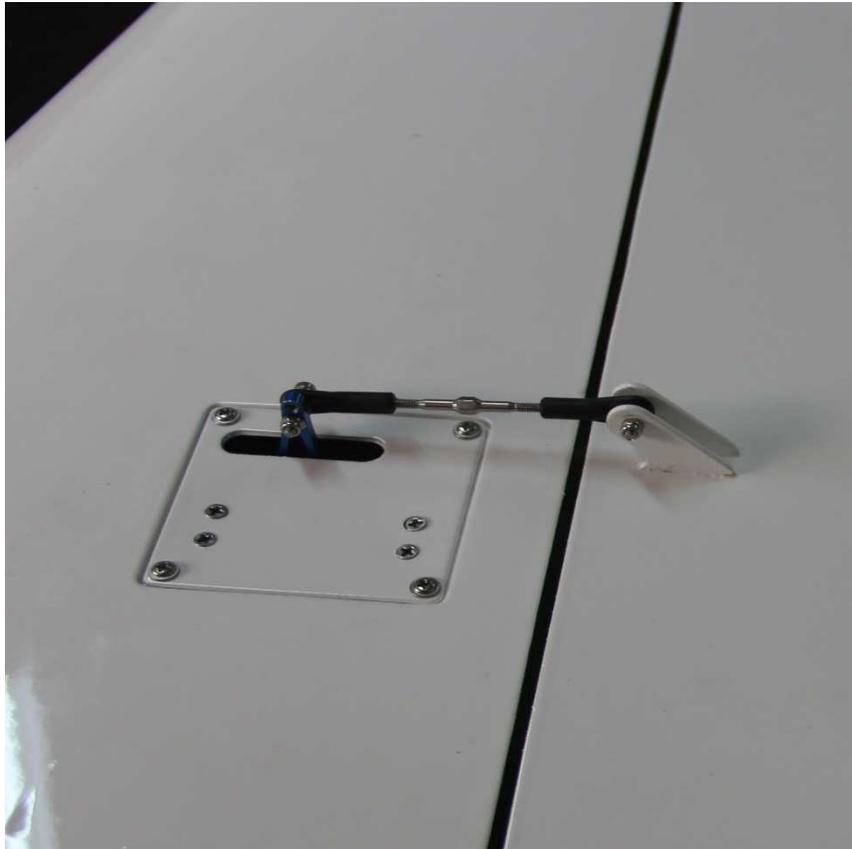


1. Take out the elevator plating from the wing and use the supply L-shape aluminium bracket to install the servo

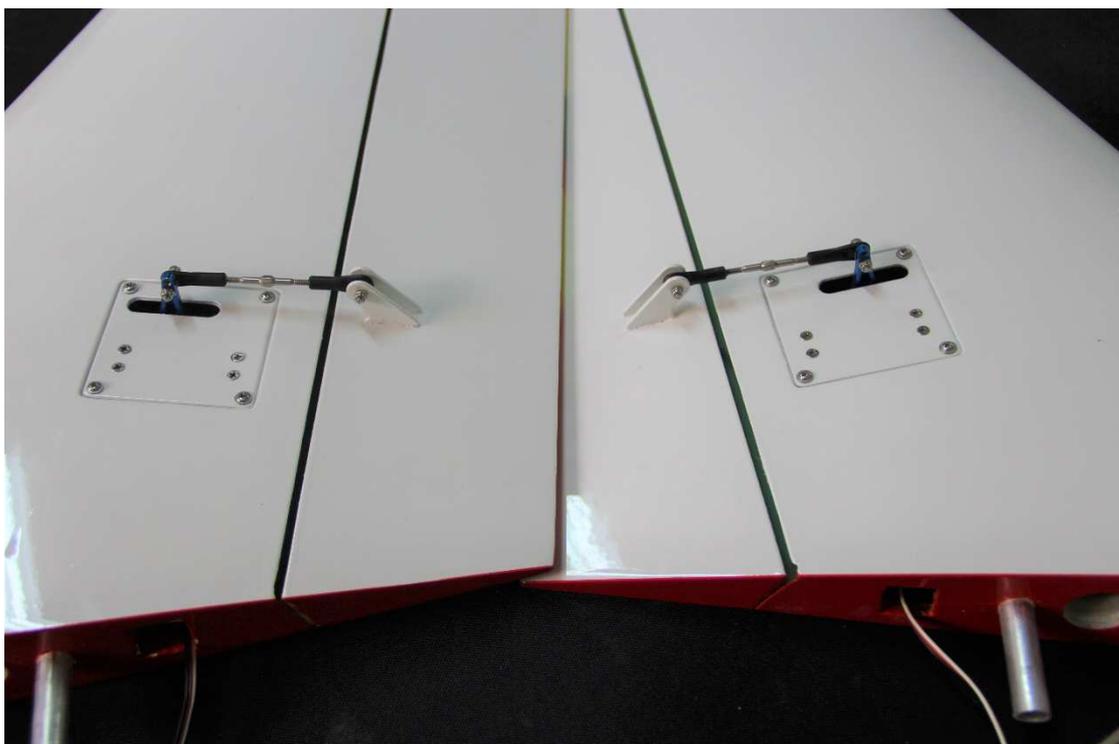


Elevator/ Rudder Servo Assembly

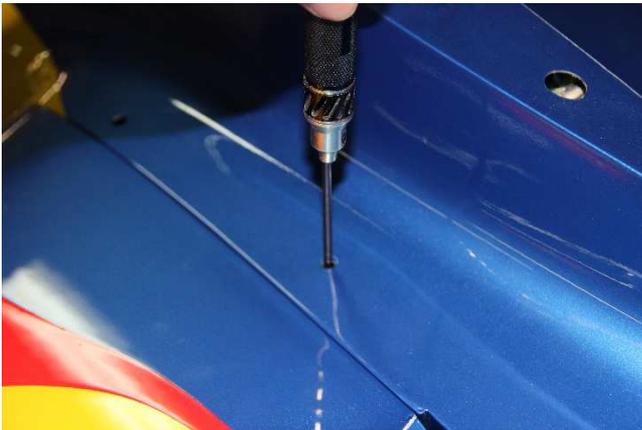
2. Attach the included pushrods and ball links between the servo arm and the control horn



3. Rudder servo and servo arm installed



Elevator/ Rudder Assembly



To assemble the rudder, insert the aluminum tube

Next connect all the servo wire and insert the elevator to the mounting hole

Fasten all of the screws, and make sure they are tightened enough.

Elevator/ Rudder Assembly



Connect all the servo wire and insert the rudder tube into the mounting hole on the fuselage.

Fasten all of the screws, and make sure they are tightened enough.



Fuselage Assembly

The 126" Predator's fuselage divided three pieces. Rear section easily removable for transport



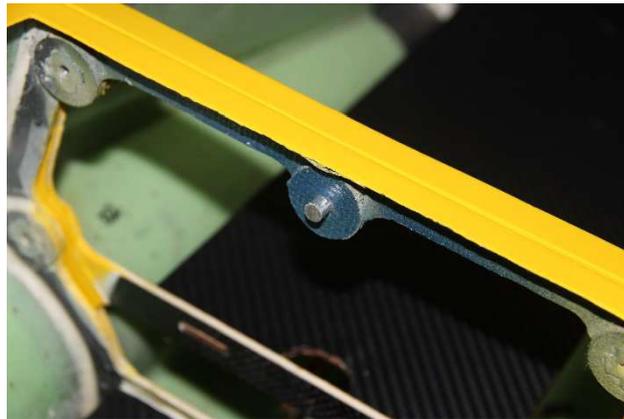
Fuselage divided three parts:
Front part (For front landing gear, electronic device)
Middle part (For tank, engine, wings)
Behind part (For exhaust pipe, rudder, elevator)

Fuselage Assembly

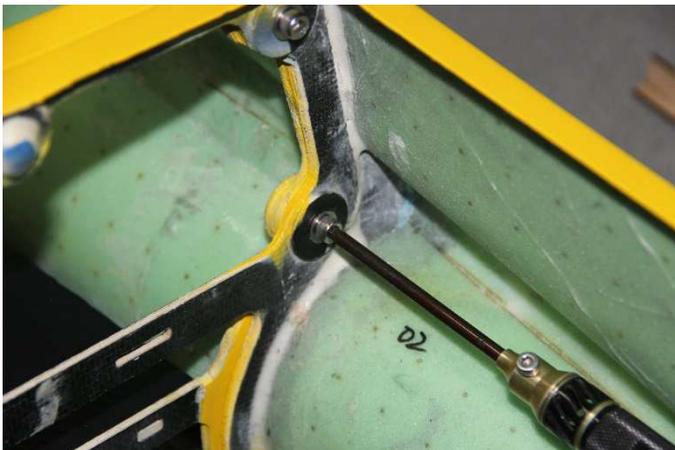
Front – Middle part



1. First, put the front fuselage and middle fuselage on table or support shelf. And make sure front-middle part can connect through the limit hole.



2. When connected, use the head screws to fasten all of it. and make sure all of screws are tight.



Fuselage Assembly

Middle - Behind part

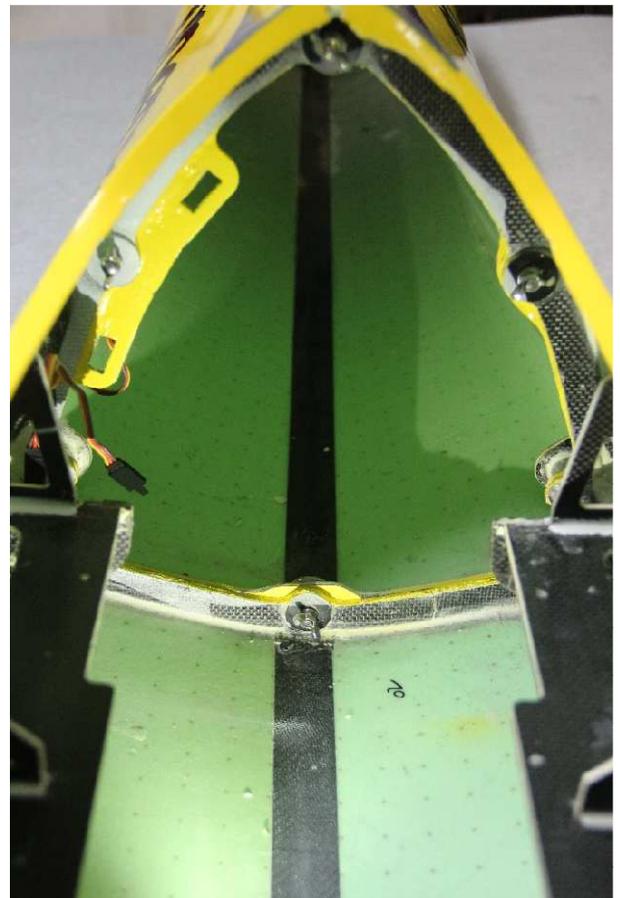
1. When you finish the front-middle part. Then connect the middle-behind part like before.



2. Use the butterfly screws to fasten all of it, and make sure all of screws are keep tight.



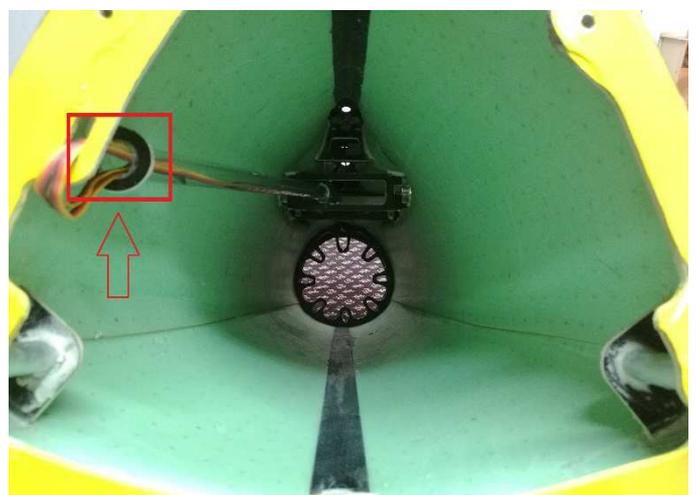
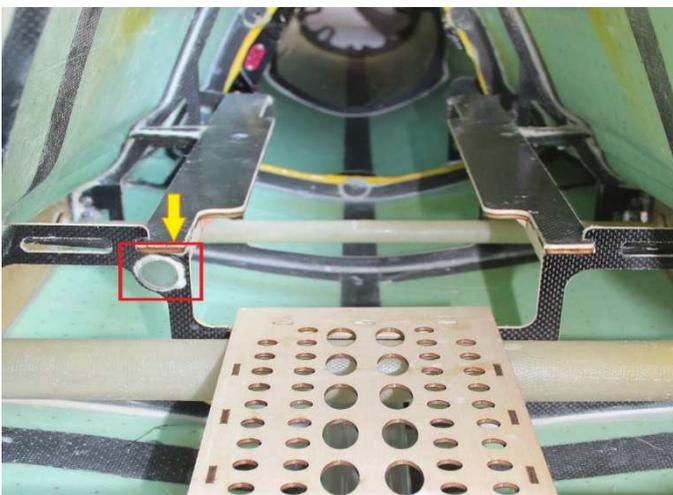
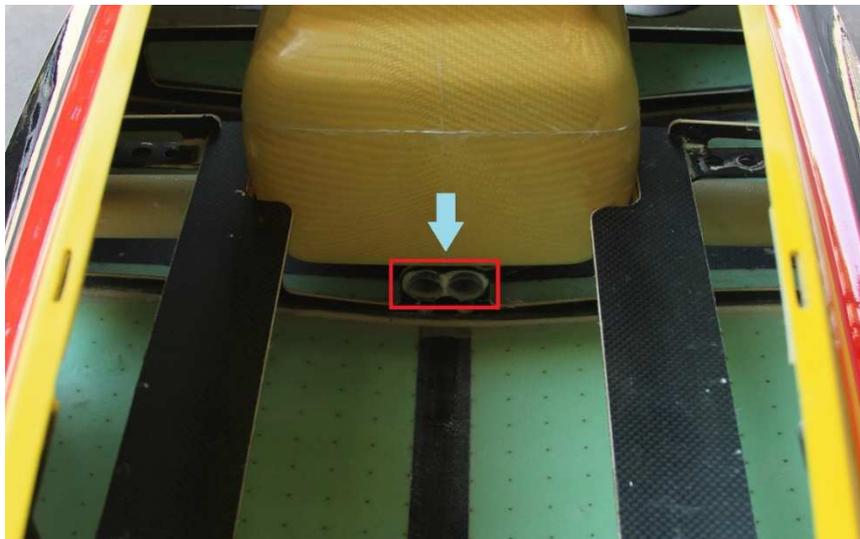
Need fasten the fuselage connect pipe.



Circuit Arrangement

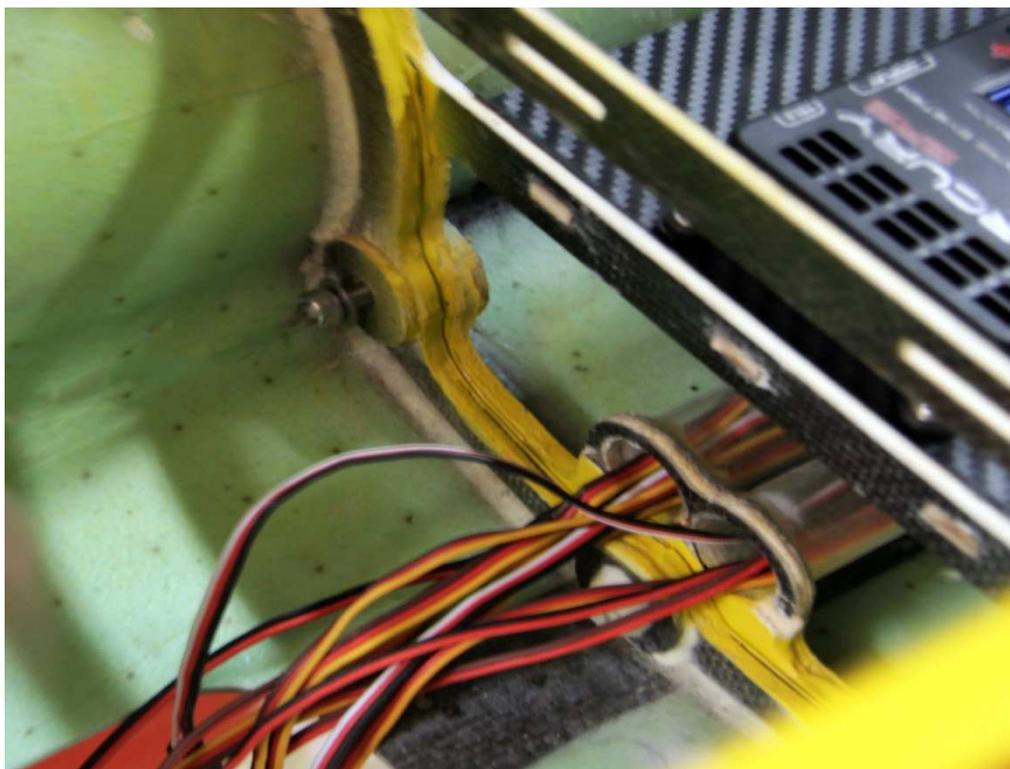
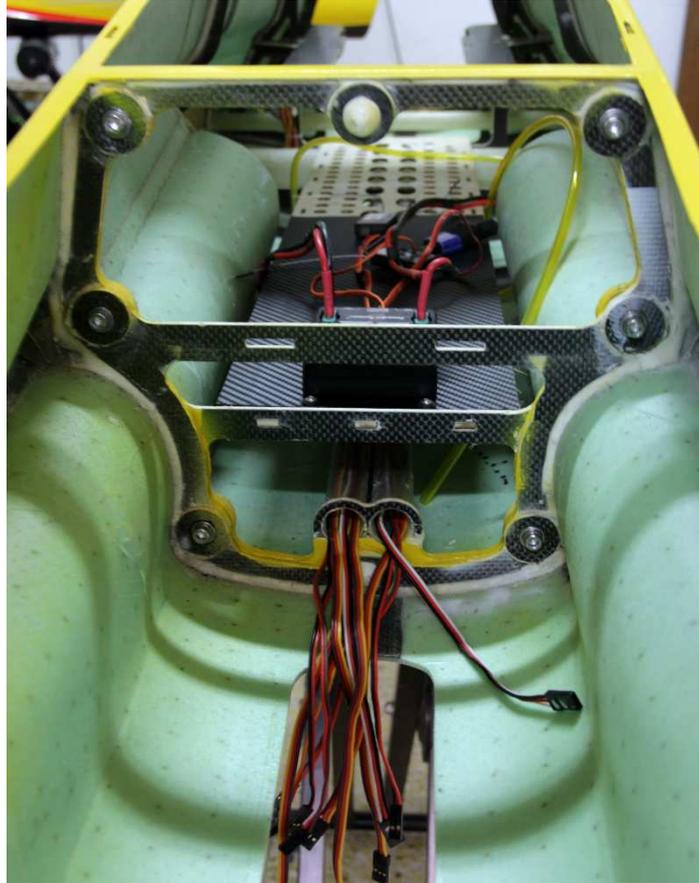
Because the Predator fuselage divide three part. and each part have many electric parts need assemble, so there is many circuit..... So for easy arrange the circuit, these pictures showed how the circuit arrange in the fuselage.

For circuit arrange easily, we set the circuit arrangement tube in each fuselage, it's under the mounting plate or at fuselage's left/right side.



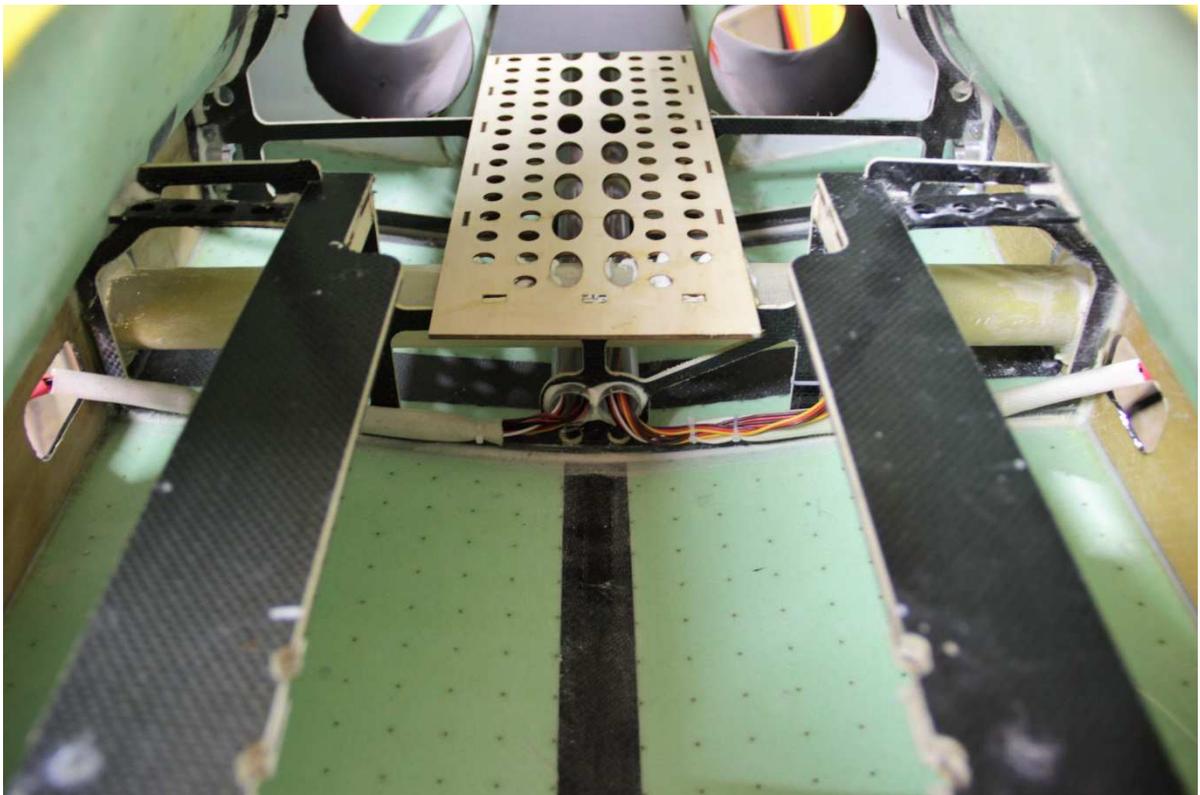
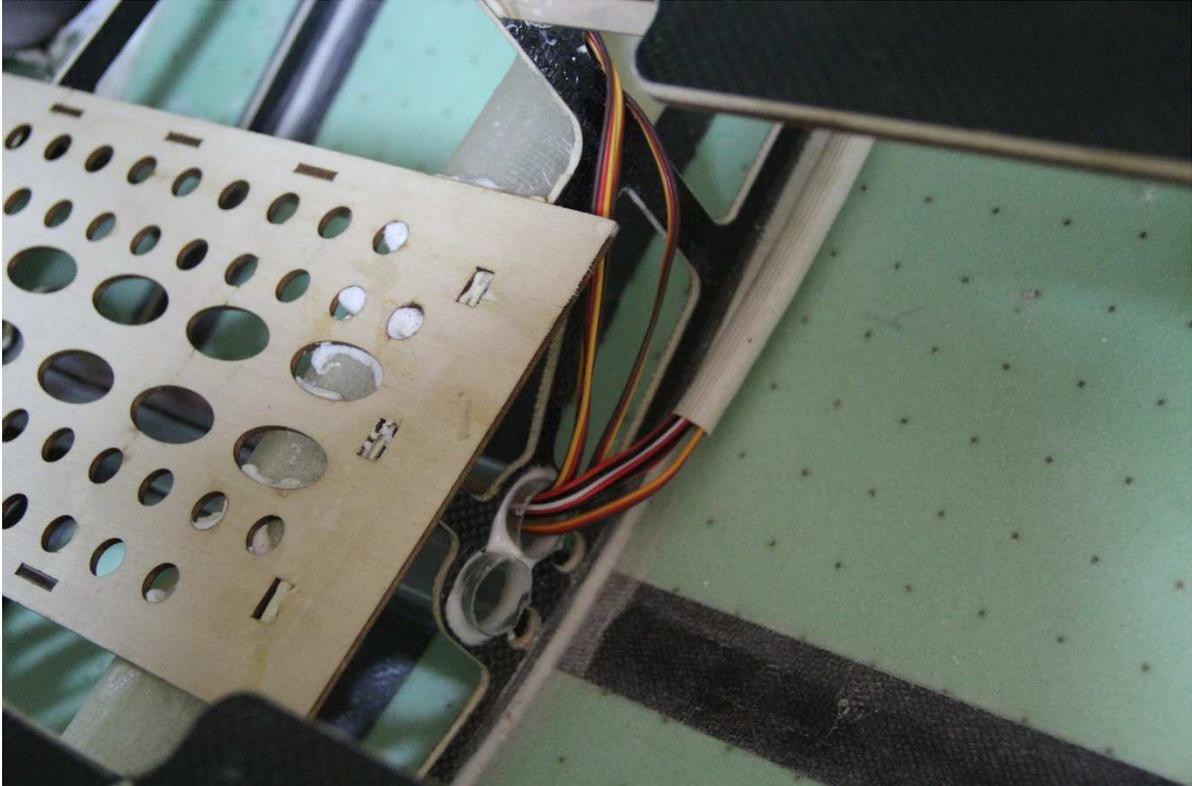
Circuit Arrangement

The front part circuit arrangement (electric parts ect.....)



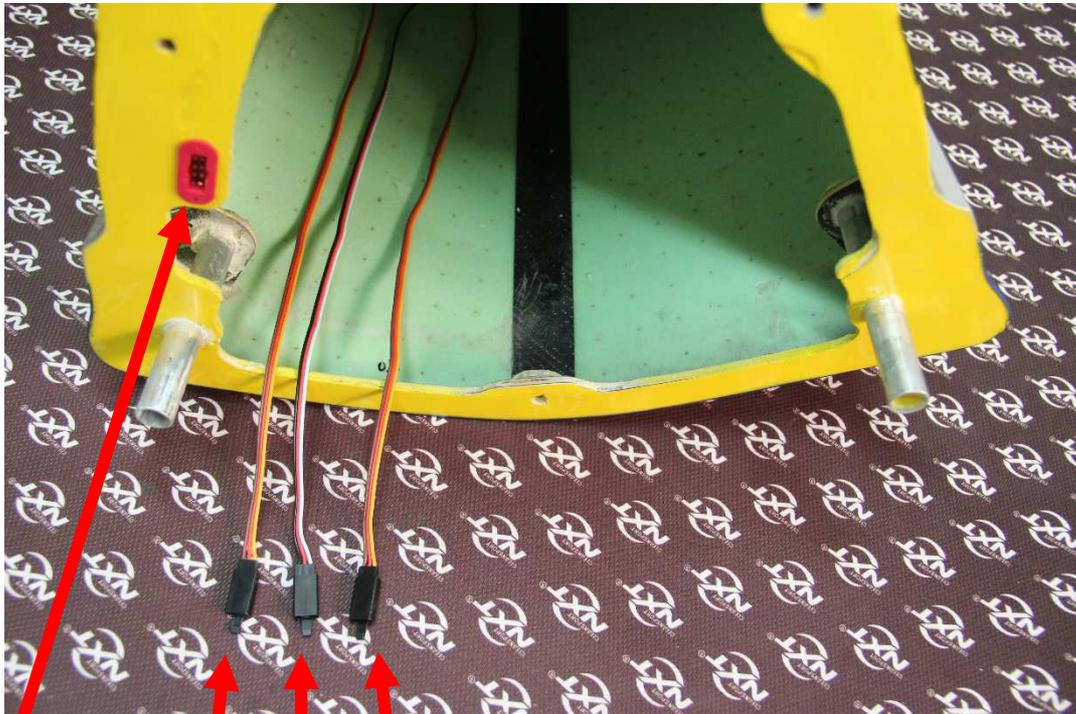
Circuit Arrangement

The middle part circuit arrangement(wings, gear)



Circuit Arrangement

The behind part 3 in 1 connector circuit arrangement (rudder, elevator)



3 in 1
connector

To Elevator

To Rudder

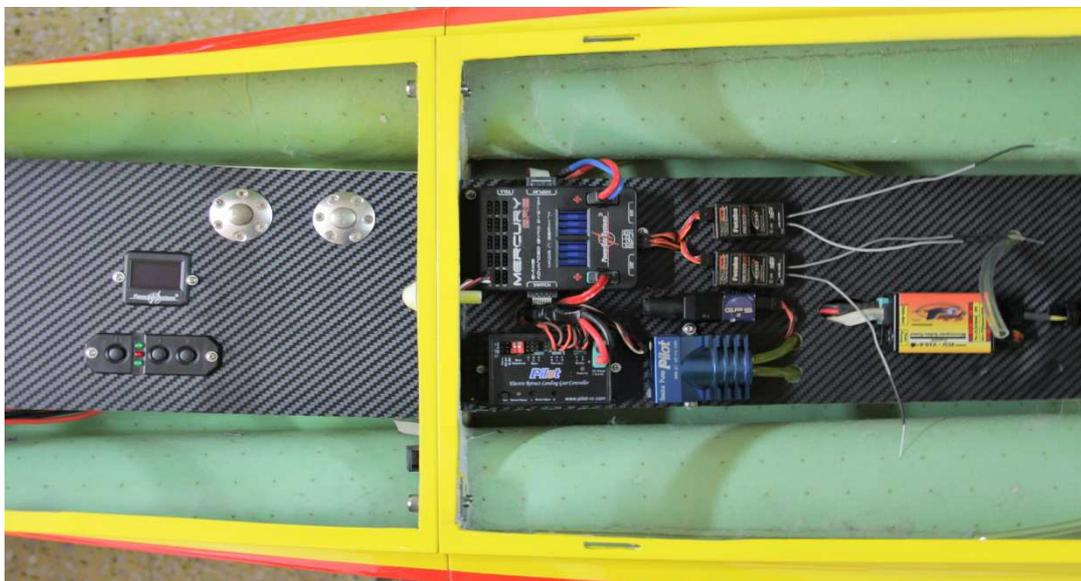
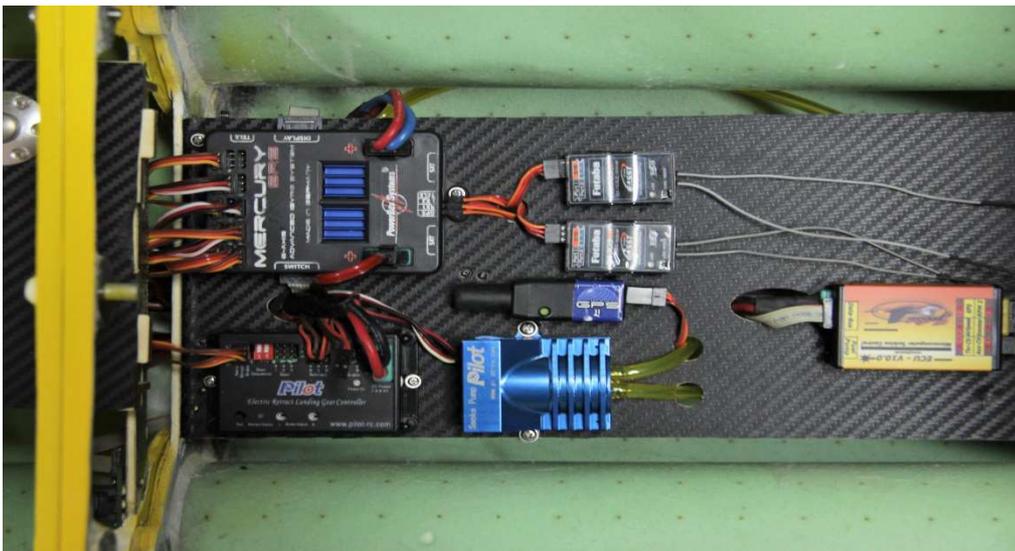
To Elevator



All these pictures are suggestion, you can arrange circuit by your way.

And for easy arrange these circuit, you may need some tools like tweezers, stay wire ect...

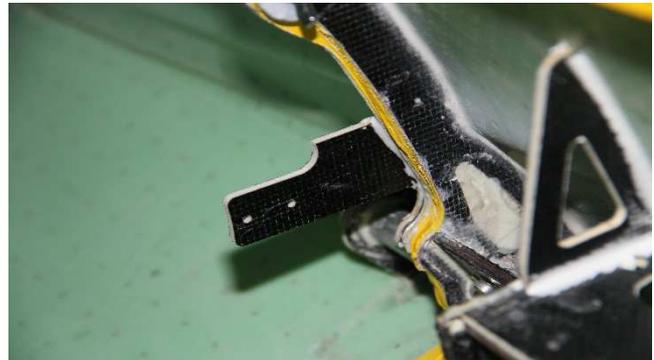
Electric parts Arrangement



The electric parts arrange, we divided it for two parts: front part is oil filler (smoke oil filler) hole and MERCURY display, switch. behind part is MERCURY, landing gear controller, oil pump, receiver, flying control system. ect.....

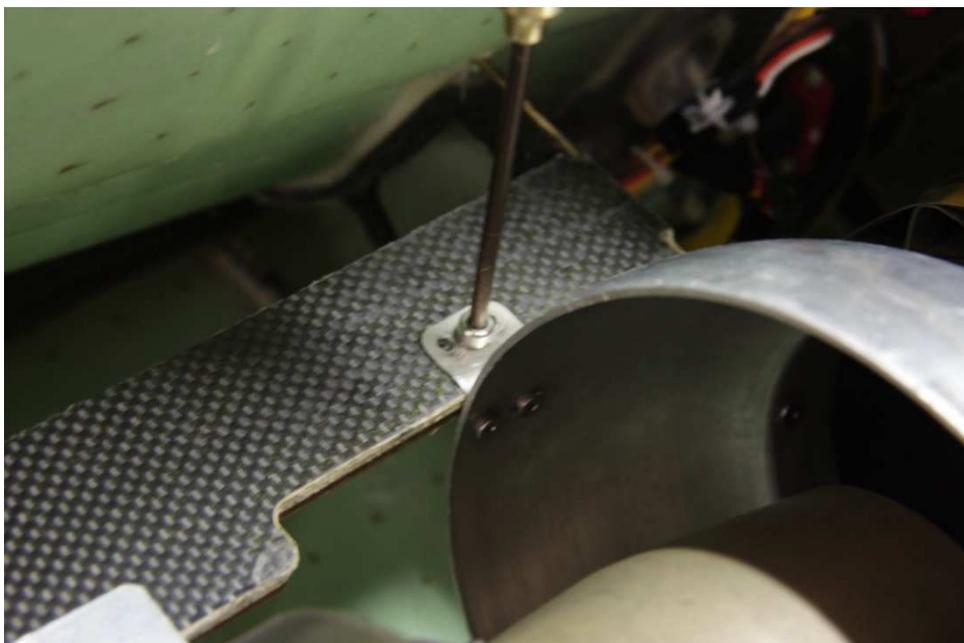
Engine Arrangement

For install the engine, we suggest install the exhaust nozzle first, when the nozzle setting done, we can locate the engine's setting position, and install it.



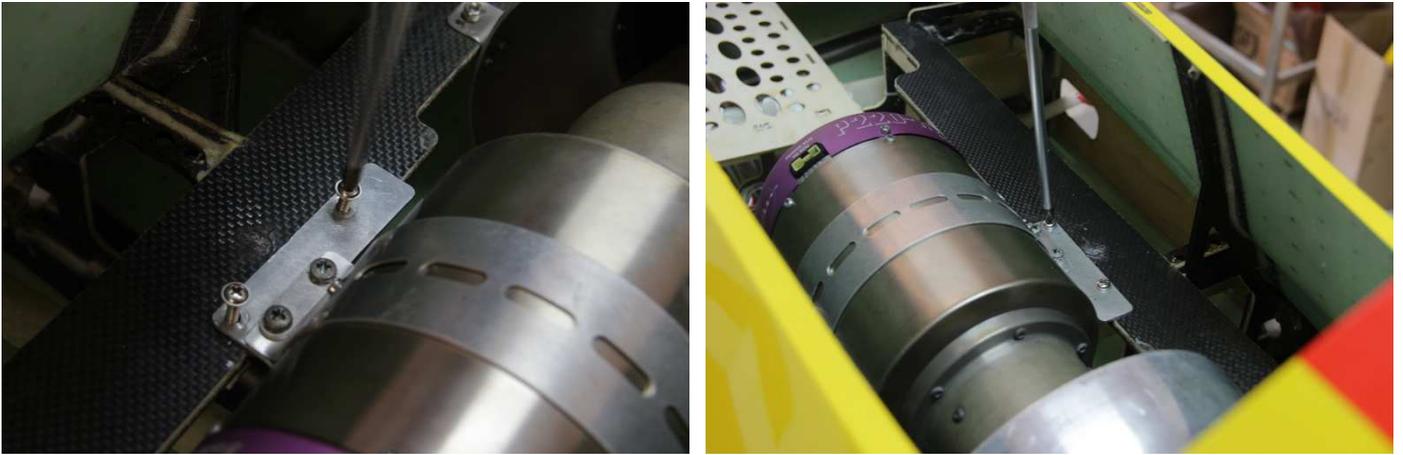
**Side support
arrange
position.**

Need 4
tapping
screws to
fasten it.

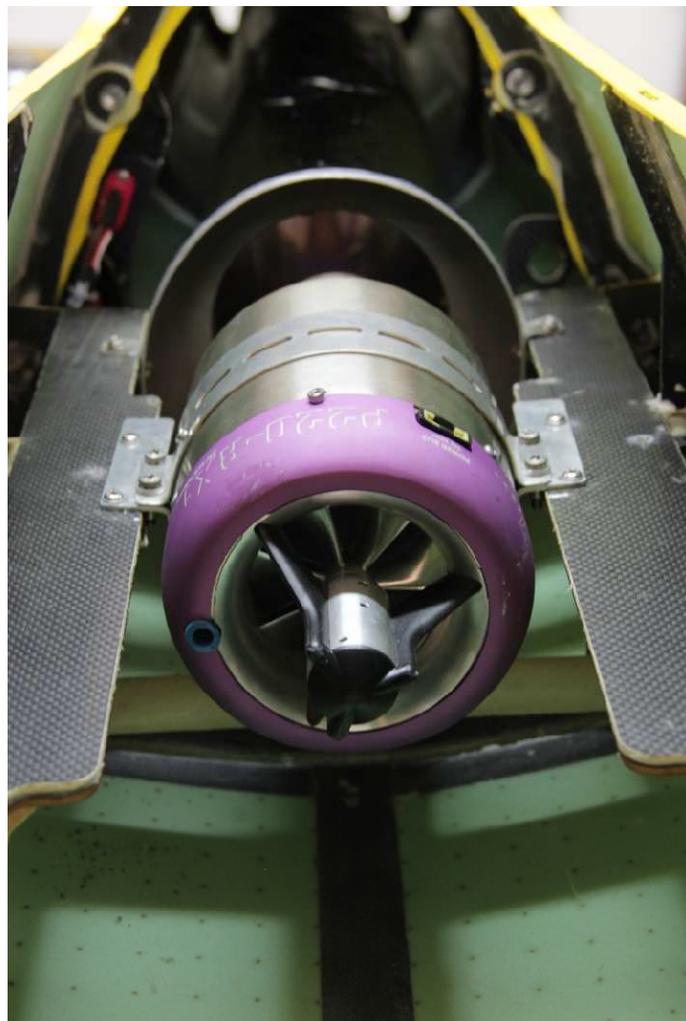


Here use M3
claw screws
to fastening it.

Engine Arrangement



When arrange the engine, must make sure the screws are tight with engine and mounting plate



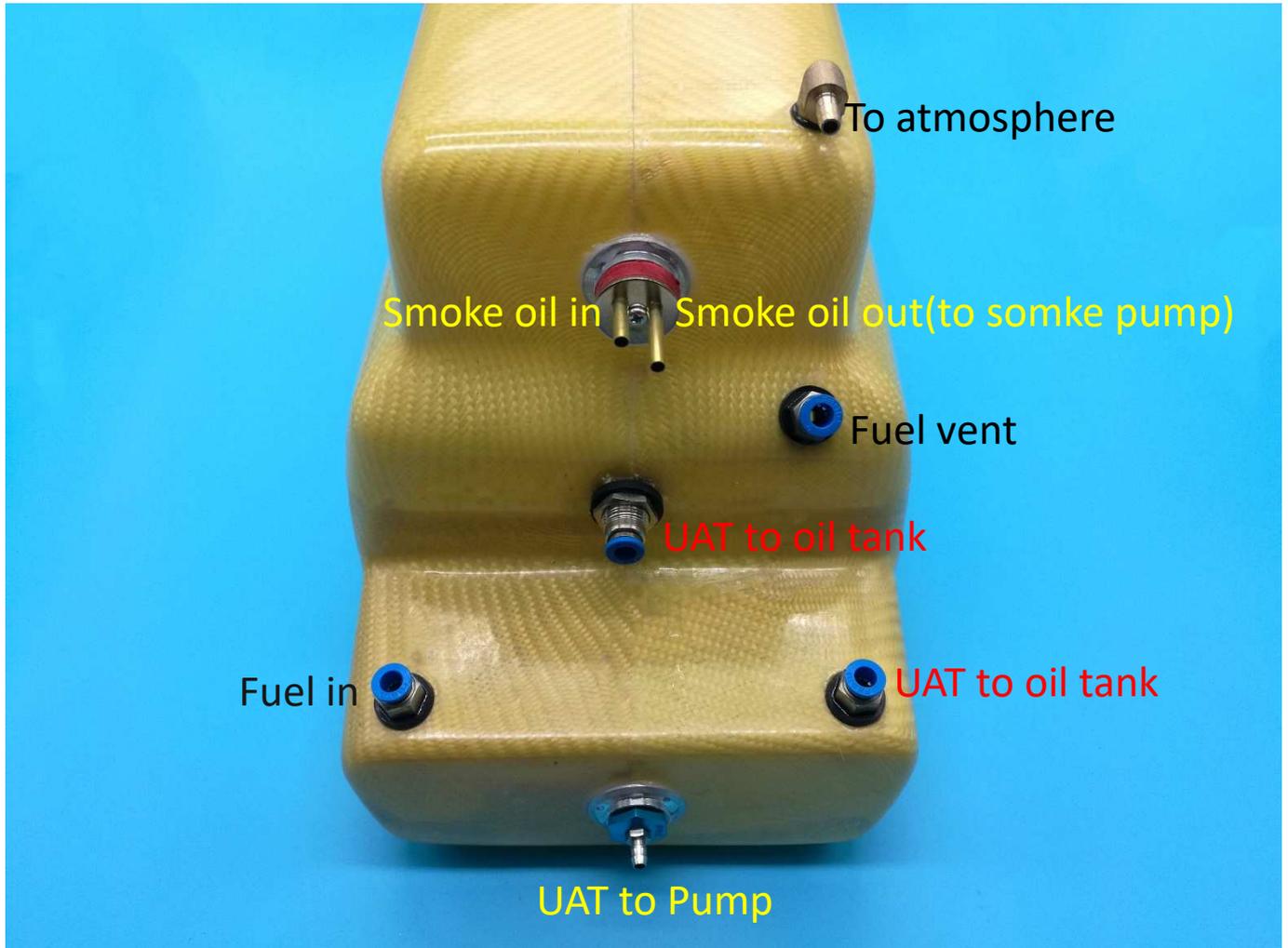
Tank Arrangement

The 126" predator use PilotRC 3 in 1 Kevlar tank. It's included 7800ml fuel tank, 2400ml smoke tank and 500ml UAT



Tank Arrangement

Tank linking hole connecting diagram.

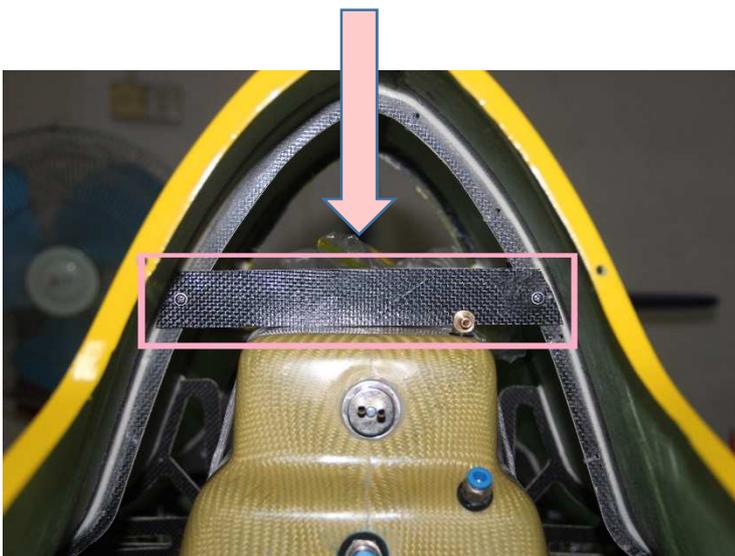


Tank Arrangement

To make sure the tank arrange position, put the tank in to the slot, and make sure the tank is in the current position.



This tank limits plate you need install by yourself, use glue to glue it on the fuselage, and use bolt to securing it.



When tank in position, use double sticky tape to stick the tank on the fuselage, and use the velcro strap to hold the tank, make sure the tank is tight with mounting plate.

Tank Arrangement

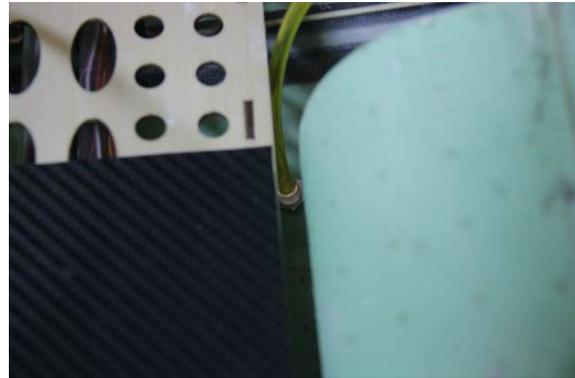
After the tank arrangement, to set the fuel vent installing hole in the fuselage, it's under the mounting plate, behind the air inter.



Fuel vent Left



Fuel vent Right



Fuel vent installing hole settled done, it's under the fuselage.

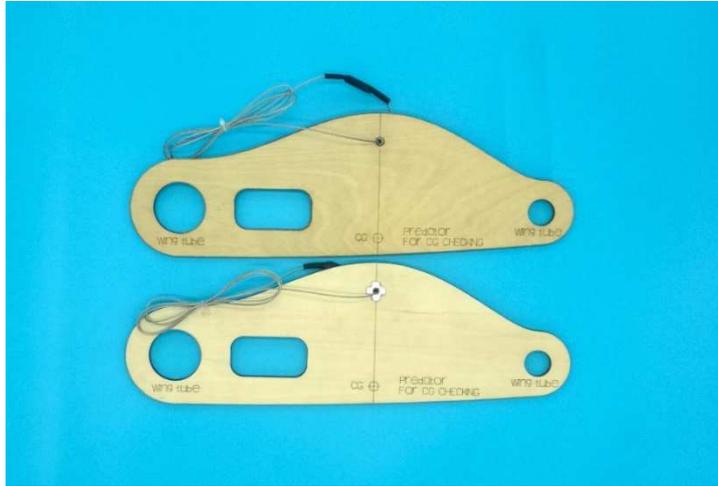


CG Checking

The Predator have CG measuring tools for checking CG, you can checking CG by this tool.

Please check the CG without empty oil tank.

Click here for the video:
<https://www.facebook.com/khaitang.wong/videos/1875569852454736/>



Flying Setting

Aileron: 36mm

Rudder: 432mm

Elevator: 33 mm

Flaps:

55mm for **take off**

120mm for **landing**

CG: The CG is 430mm from the front leading edge on the root of the wing.



Flight Preparation

- Make sure you have the right model programmed into your transmitter
- Check the direction of each surface not and also right before you take off .
- Remember nothing wrong on the ground ever improves in the air
- Check the air plane with the engine running and do a range check with your body between you and the plane at least 150 feet.
- Check your battery voltage after each flight, in case one servo is draining your battery
- Recheck all screws ,horns and linkages for slop after your maiden flight and check for damage if you made a bad landing you first time
- Have an experienced pilot fly it for you the first time if you have any doubts in your mind about the maiden flight
- Take a break after you first flight and let the adrenaline burned off by bragging to your fellow members how good it flies
- Fly low and at a medium speed on your first few flight
- Listen to your engine run and have an observer with you to remember what you talked about during the flight or if you get into trouble . Always balance your props, vibration is a killer.
- Remember nose heavy airplanes fly all the time, tail heavy airplanes fly only once. Be on the CG!
- Flying two mistakes: high in the beginning and not close to people, planes or runways. Being a center of the runway hog does not endear you to many modelers.

Double Check

Double check that all screws are installed, all components tightly secured, batteries and or fuel tank are full, all surfaces are working in the correct directions, balance is correct and range test passed before performing your maiden flight.

WE WISH YOU A SUCCESSFUL MAIDEN AND MANY HAPPY FLIGHTS WITH YOUR NEW MODEL

Tony Tan, Pilot-RC



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