Before start , please carefully read the explanations!

Focke-Wulf Fw190A-8

Specification:

Wing Span: 2362mm/93in
Length: 1990mm/78.3in
Flying Weight: 13.9 kg
Wing area: 91.2dm2
Engine: 60-80cc-100cc
C.G: 168mm from the leading edge at wing root

INSTRUCTION MANUAL

SAFETY PRECAUTIONS

This R/C airplane is not a toy!

(The people under 18 years old is forbidden from flying this model)

First-time builders should seek advice from people having building experience.If misused or abused,it can cause serious bodily injury and damage to property.

Fly only in open areas and preferably at a dedicated R/C flying site. We suggest having a qualified instructor carefully inspect your airplane before its first flight.Please carefully read and follow all instructions included with this airplane,your radio control system and any other components purchased separately.

REQUIRED FOR OPERATION (Purchase separately!)

CAUTION: For details concerning the equipment listed below (size, maker, etc.), check with your hobby shop.

1 A minimum 6 channel radio for airplanes (with 8 servos), and dry batteries.

CAUTION: Only use a minimum 6 channel radio for airplanes! (No other radio may be used!)
6 channel radio for aiplane is highly recommended for this model.

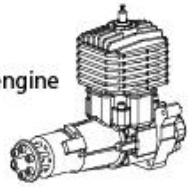
12 AA-size Batteries

A minimum 6 channel transmitter for airplanes.

For handling the radio properly, refer to its instruction manual.

2 Engine and Muffler

Model Airplane Engine 60cc-80cc-100cc gas engine



Muffler

3 Propeller Spinner

scale spinner

Purchase a propeller that will match your engine.

27 X 10 / 26 X 12

4 Sponge Sheet

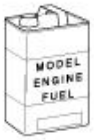
Gasoline tube

Fuel Filter

5 Required for engine starting:

WARNING: Normal gasoline cannot be used with glow engines.

Gasoline

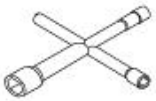


Fuel Pump

Booster Cord

4 D-size Batteries

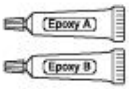
Plug Wrench



6 Glue

Instant Glue

Epoxy Glue



7 Other equipment for enhancing airplane operation & performance

Engine Starter

12V Battery (for starter)

9 Optional electric retract set

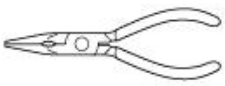
TOOLS REQUIRED (Purchase separately!)

Sharp Hobby Knife

Phillips Screw Driver (l, m, s)

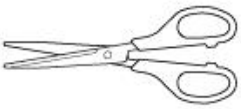
Awl

Needle Nose Pliers



Wire Cutters

Scissors



BEFORE YOU BEGIN

1 Read through the manual before you begin, so you will have an overall idea of what to do.

2 Check all parts. If you find any defective or missing parts, contact your local dealer.

3 Symbols used throughout this instruction manual, comprise:

4 We strongly recommen you use the thread lock for all the screws when you build your model.

Do not overlook this Symbol!

Warning!

A B Apply epoxy glue.

2mm Drill holes with the specified diameter (2mm).

Cut off excess.

Pay close attention here!

L R Assemble left and right sides the same way.

CA Apply instant glue (CA glue, super glue).

Cut off shade portion.

Ensure smooth non-binding movement while assembling.

X Must be purchased separately!

FW190 Accessories list

TP Screws (3x12mm)	4
TP Screws (3x10mm)	6
TP Screws (3.2x8mm)	6
TP Screws (2x8mm)	10
Screws (2x12mm)	7
Screws (3x14mm)	12
Screws (3x8mm)	4
Screws (3x40mm)	2
Plastic screw(6x50mm)	2
Lock nut (2mm)	7
Lock nut (3mm)	18
Flat washer (3x8mm)	10
Push rod (95x3mm)	2
Push rod (73x3mm)	4
Throttle wire (2X400mm)	1
Push rod (2X100mm)	1
Ball joint (2mm)	7
Ball joint (3mm)	12

Steel wire (5x1500mm)	4
Plastic clevice	2
L bracket (25x20x3)	2
Alu part	2
Copper fitting	6
Copper tube(3x6mm)	6
Fuel tank (800cc)	1
Round hinge (5x68mm)	3
Fiber arm	16
Wing tube 1 (20x334mm)	2
Wing tube 2 (30x542mm)	2
Stab tube (14x388mm)	2

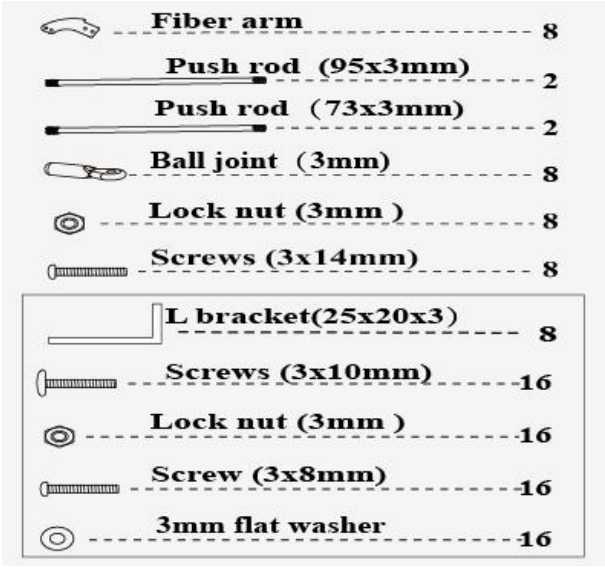
L bracket(25x20x3)	12
Screws (3x10mm)	24
Lock nut (3mm)	24
Screw (3x8mm)	24
3mm flat washer	24

Accessories for optional retract

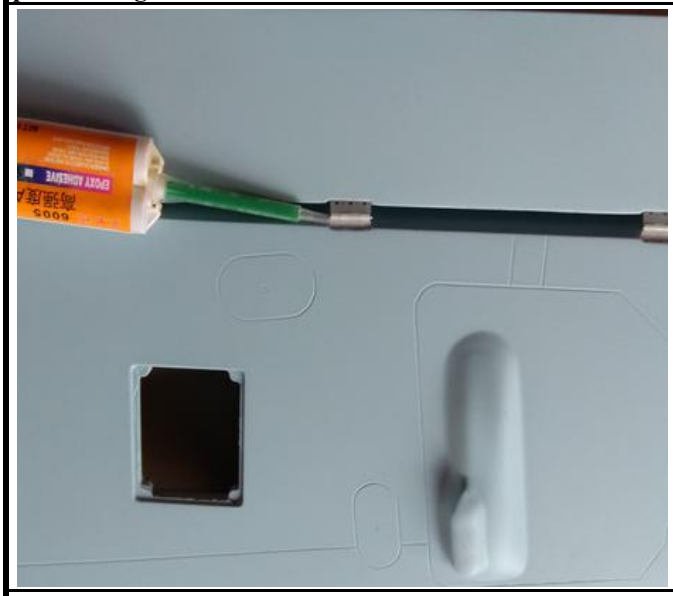
TP Screw (3x12mm)	2
Hex screw (3x10mm)	4
TP screw (3x14mm)	12
Mushroom head screw (3x20mm)	8
Metal Tranship	4
Ply (3mm)	12

T Joints	6
Air Operated Valve	1
Air tank	2
One Way Air Filling Valve	1
Air tube (3x4500m)	1

Accessory list for the installation of aileron and flap.



1. Apply instand type AB glue to the slots in the flap and pinned hinges.



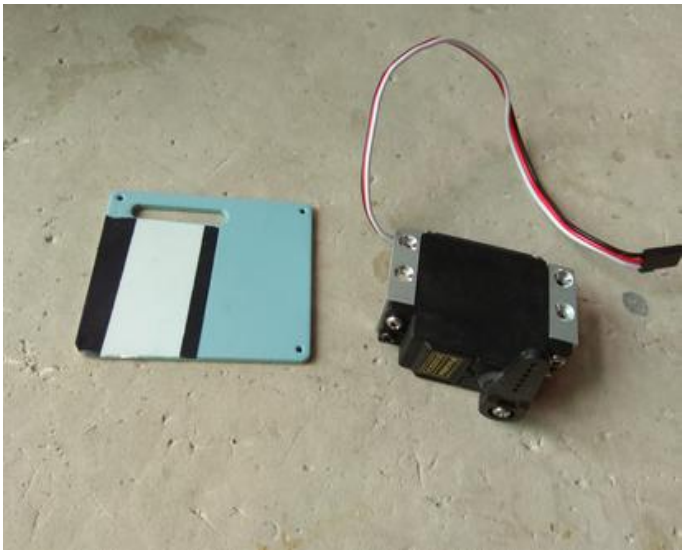
2. Epoxy the flap to the wing, Keep some space between the trailing edge and the flap to make sure it can rotate smoothly.

3. Apply instand type AB glue to the holes in the aileron and hinges. Epoxy the aileron to the wing.

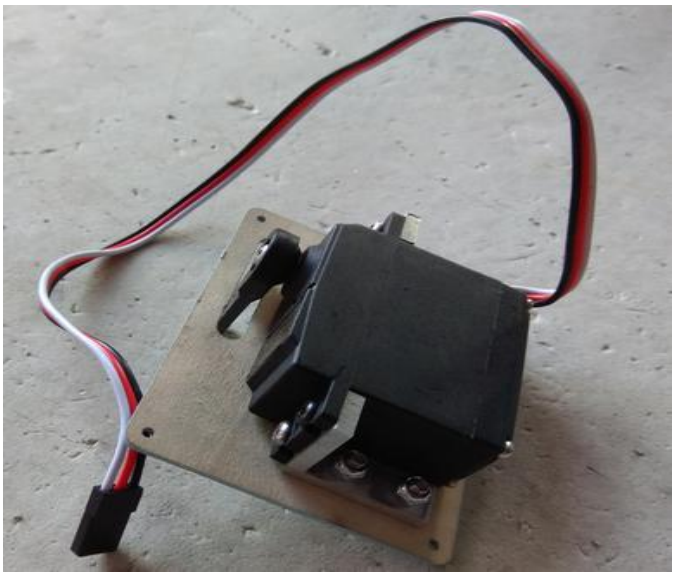
4. Epoxy the aileron to the wing, Keep some space between the trailing edge and the aileron to make sure it can rotate smoothly.

5. Apply AB glue to the slots in the flaps and assemble the horns into them.

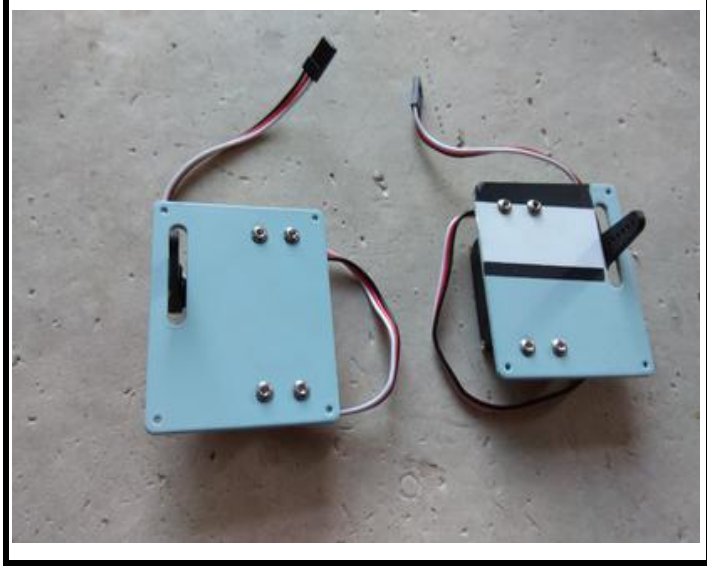
6. Assemble the servos to the servo trays.



7. Assemble the servos to the servo trays.

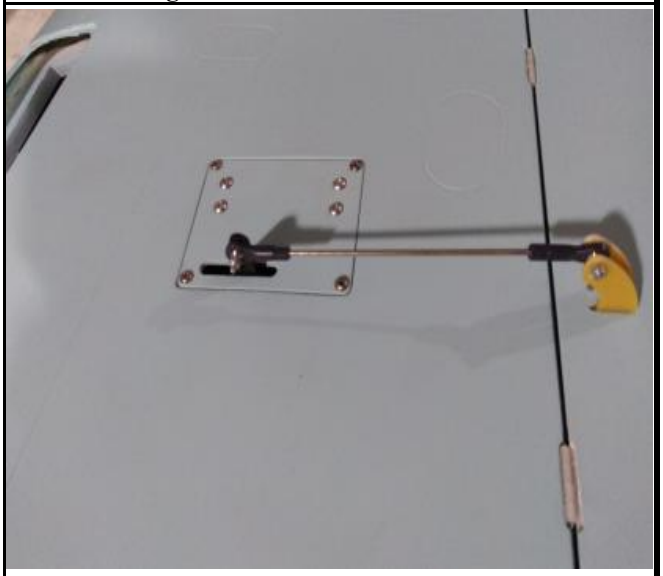


8. Servos assembled ready.



9. Connect the fiber horns in the aileron to the servo arms with the linkage and lock each side with screws and nut.

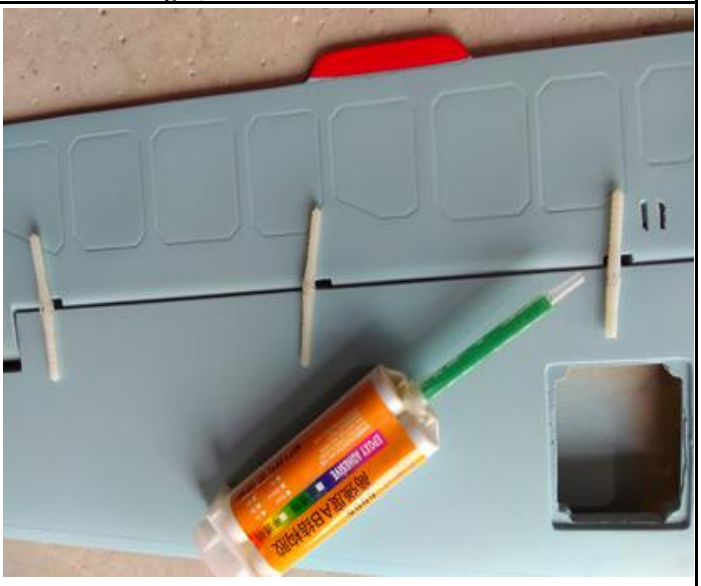
10. Connect the fiber horns in the flap to the servo arms with the linkage and lock each side with screws and nut.



Accessory list for the installation of elevator.

Fiber arm	4
Push rod (73x3mm)	2
Ball joint (3mm)	4
Lock nut (3mm)	4
Screws (3x14mm)	4
L bracket(25x20x3)	4
Screws (3x10mm)	8
Lock nut (3mm)	8
Screw (3x8mm)	8
3mm flat washer	8

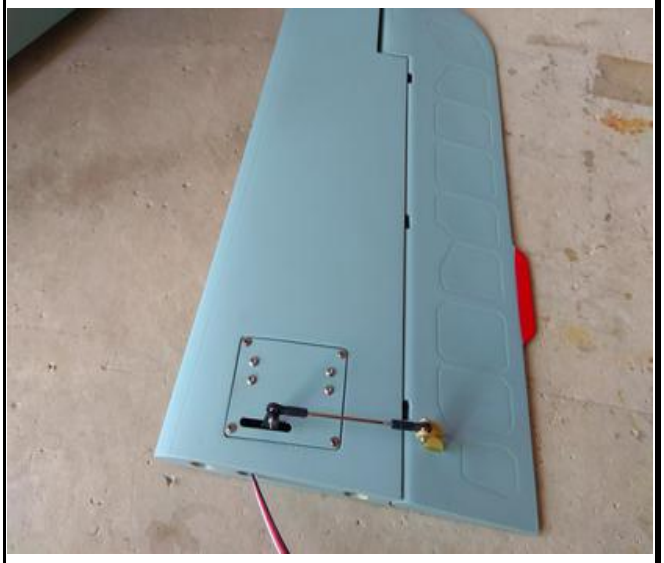
11. Apply instand type AB glue to the holes in the elevator and round hinges, assemble the elevator to the stab.



12. Picture of the elevator assembled ready.

13. Apply AB glue to the slots in the elevator and assemble the horns into them.

14. Connect the fiber horns to the servo arms with the linkage and lock each side with screws and nut.



Accessory list for the installation of rudder and tail gear.

Fiber arm	4
Ball joint (2mm)	6
Lock nut (2mm)	6
Screws (2x12mm)	6
Hexagon screw(3x10mm)	4
TP Screws (3x12mm)	2
Copper fitting	6
Copper tube(3x6mm)	6
Flat washer (3x8mm)	4
Plastic air tube(3x2000mm)	1
Round hinge (5x68mm)	3
Steel wire (5x1500mm)	4

15. Apply instand type AB glue to the holes in the rudder and assemble the rudder to the tail fin.

16.Picture of the rudder install ready, make sure it can rotate smoothly.

17. Assemble the air cylinder to the tail fuselage.

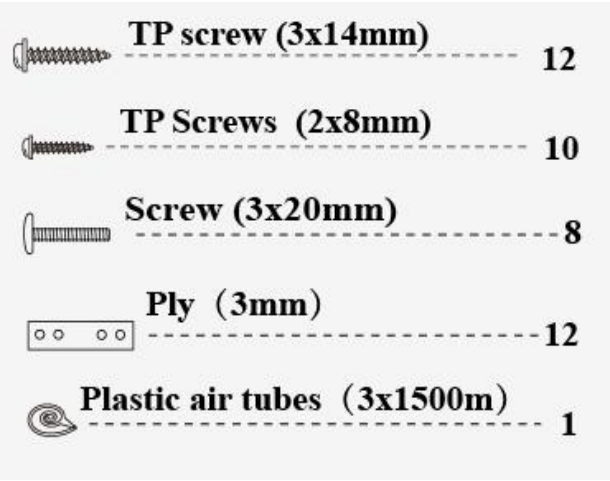
18. Fix the air cylinder to the tail fuselage.

19. Connect the arm of the tail landing gear with steel wire.

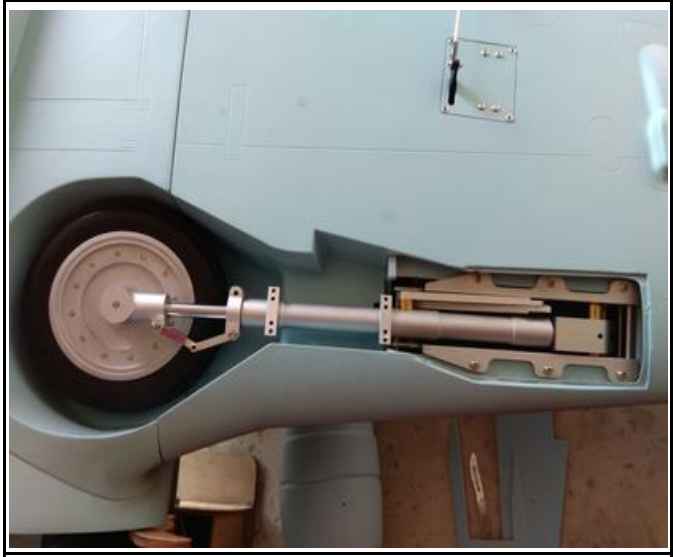
20. Drill a small hole to appropriate possition in the fuselage,connect the rudder to the servo in the fuselage via steel wire.

21. The photo when the rudder and tail wheel connect to the servo in the fuselage via steel wires.

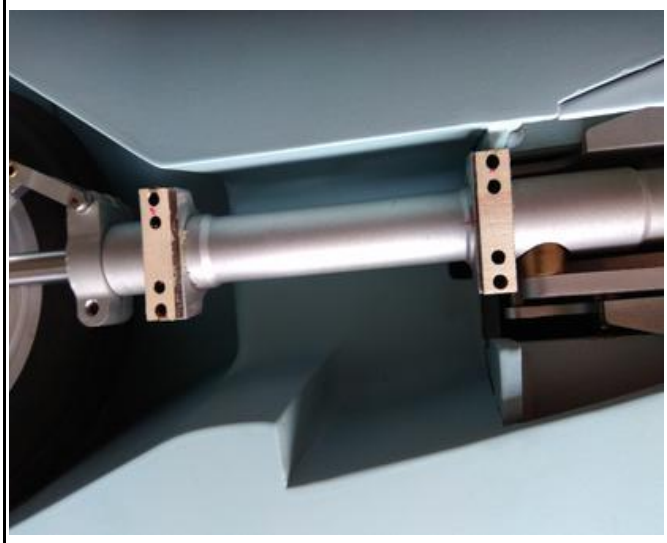
Accessory list for the installation of main retracts



22. Install the main retracts to the wing with screws.

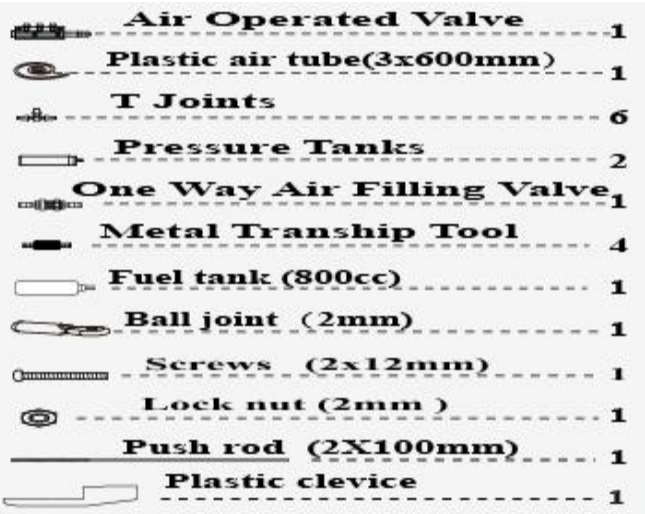


23. Glue the plies to the ring brackets on the oleo strut.



24. Assemble the wheel cover to the oleo struts with screws.

Accessory list for the installation of fuel tank and air tank.



25. Assemble the air tank and fuel tank to appropriate position in the fuselage, assemble the switch valve to the servo too.

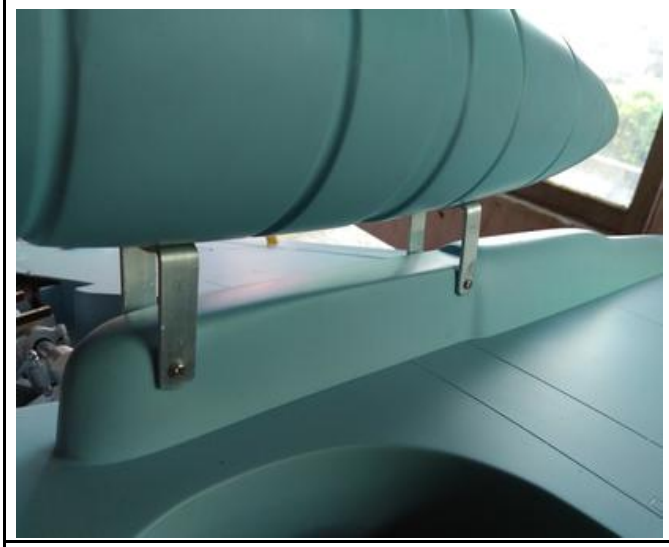
26. Assemble the air tubes to the switch valve.

27. Assemble the air tube to the air tank.

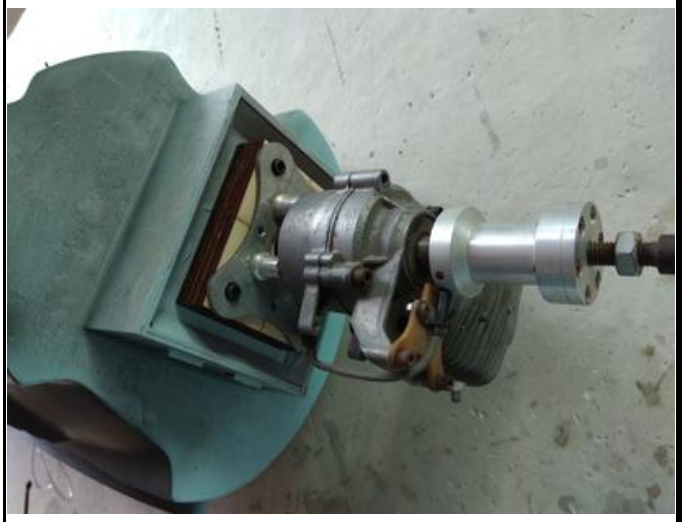
Accessory list for the installation of drop tank and engine.

TP Screws (3.2x8mm)	6
TP Screws (3x10mm)	6
Screws (3x40mm)	2
Screws (3x8mm)	4
3mm flat washer	6
Lock nut (3mm)	6
Linkage Stoppers	1
Throttle wire (2X400mm)	1
Plastic clevice	1
L bracket(25x20x3)	2
Alu part	2

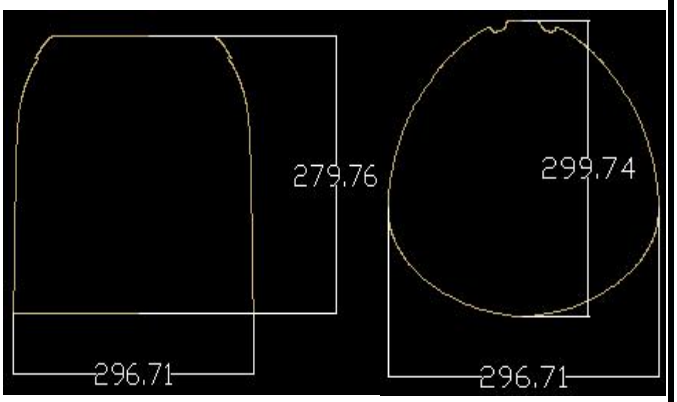
28. Assemble the drop tanks to the fuselage.



29. Assemble the engine to the engine mount.

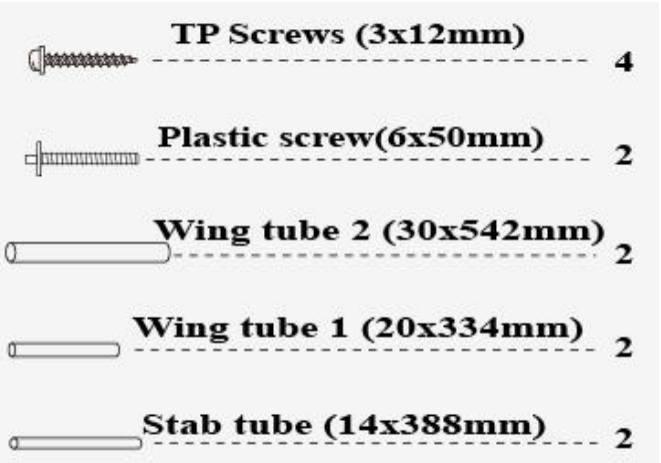


30.The datas of the cowling.



31.Assemble the cowling to the fuselage, fix the propeller and spinner to the engine.

Accessory list for the installation of fixing the wing and stab.



32. Fixing the main wing with plastic screws from the fuselage.

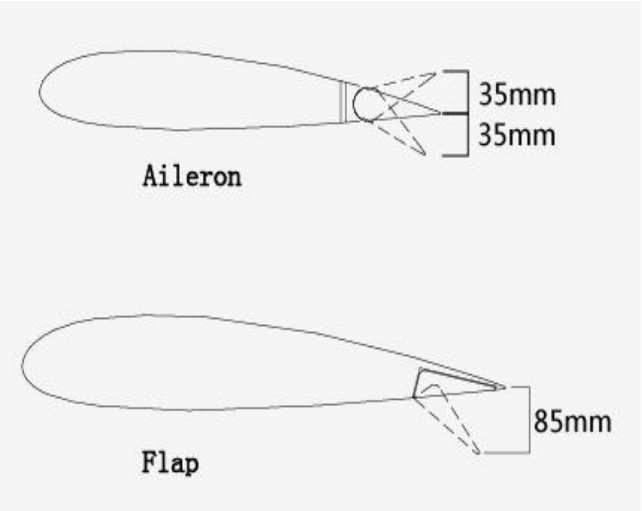
33. Fixing the stab with screws from bottom of the stab.

34. Assemble the canopy to the fuselage.

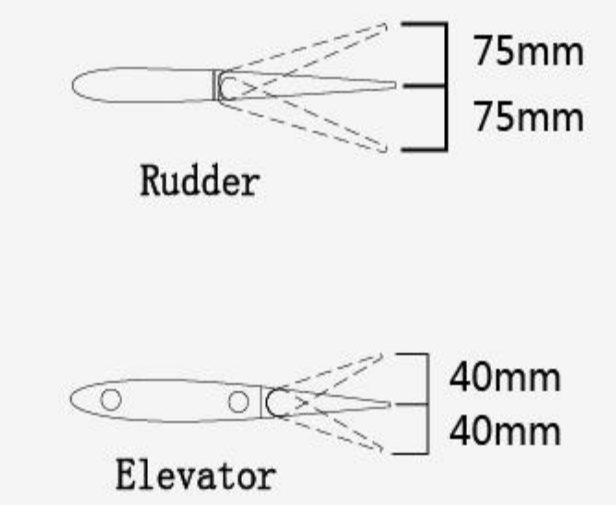
35. Phones when the model assembled completely.

36. Phones when the model assembled completely.

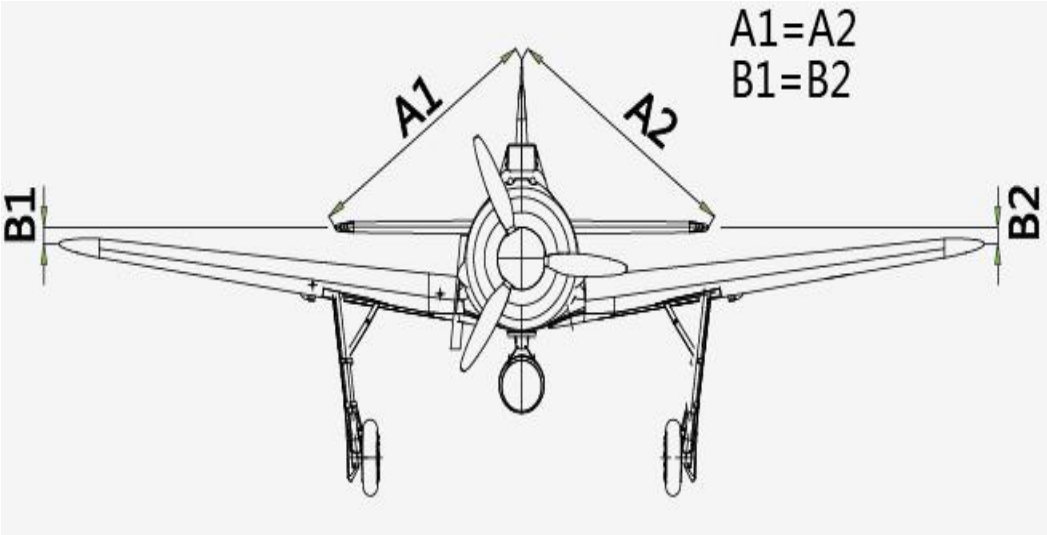
37.Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities.Readjust according to your needs and flight level.



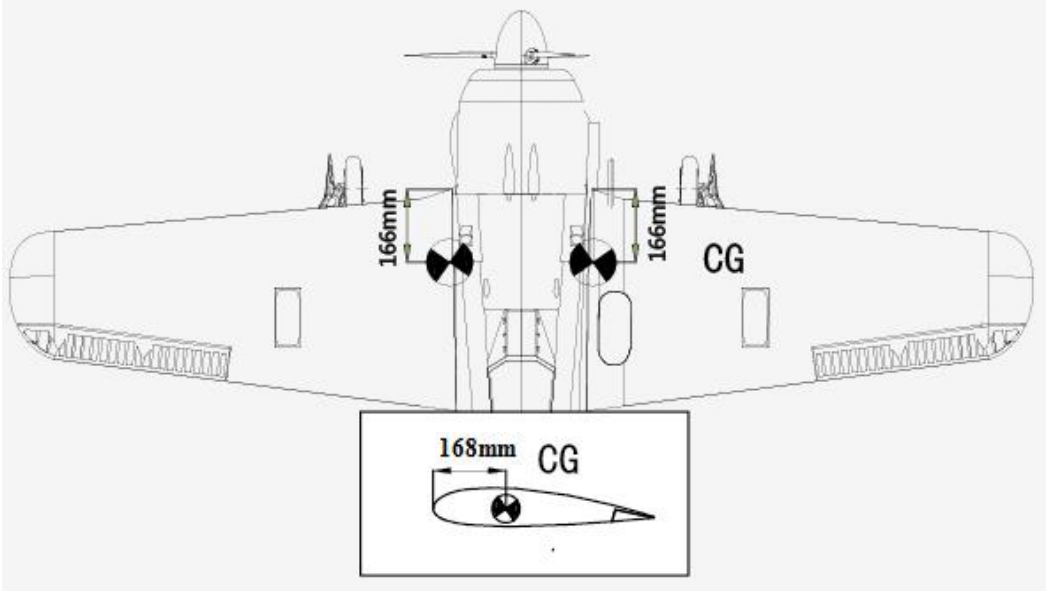
38.Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities.Readjust according to your needs and flight level.



39.Check all the datas well. make sure all sections glue tightly. Otherwise if coming off during flights, you'll lose control of your airplane which leads to accidents!

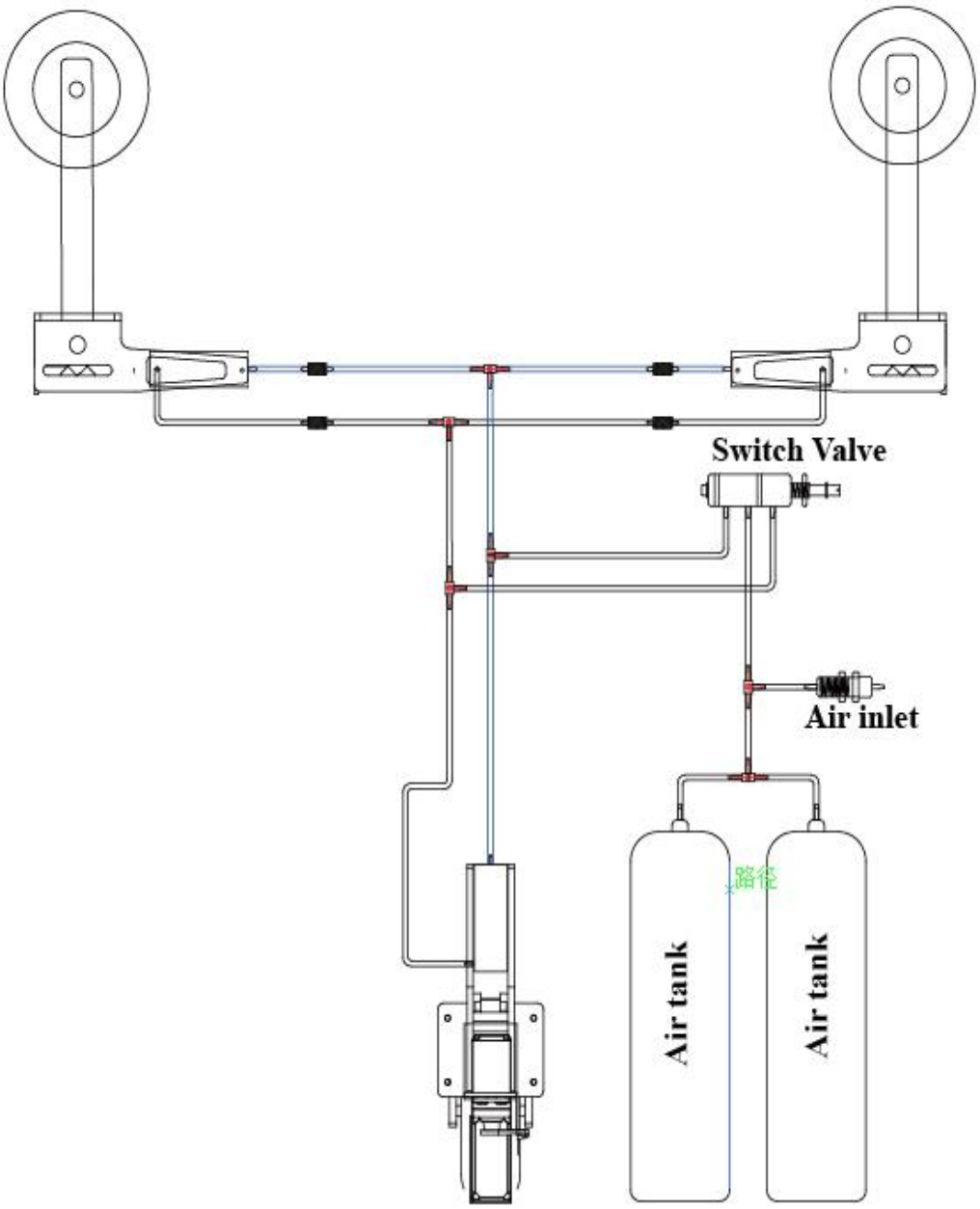


40.C.G: Never fly before checking the CG's required position. Never fly the model without well balancing.



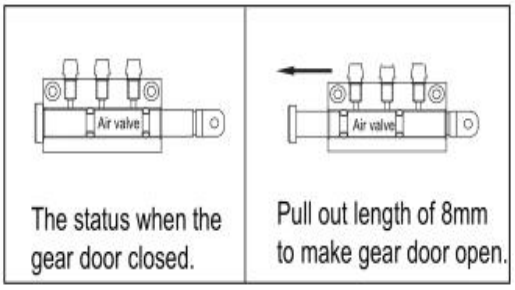
Three wheel retract system

(Make sure to assemble retracts as instructed below)



Warning!

- Please insure the sealing of the air switch system before flight .
- Pleas notice the inner diameter of each side the pressure reduction inlet.



The status when the gear door closed.

Pull out length of 8mm to make gear door open.

TP Screw (3x12mm)	2	T Joints	6
Hex screw (3x10mm)	4	Air Operated Valve	1
TP screw (3x14mm)	12	Air tank	2
Mushroom head screw (3x20mm)	8	One Way Air Filling Valve	1
Metal Tranship	4	Air tube（3x4500m）	1
Ply（3mm）	12		