

MUGIN 4450 VTOL

BRIEF BUILD GUIDE V1.1



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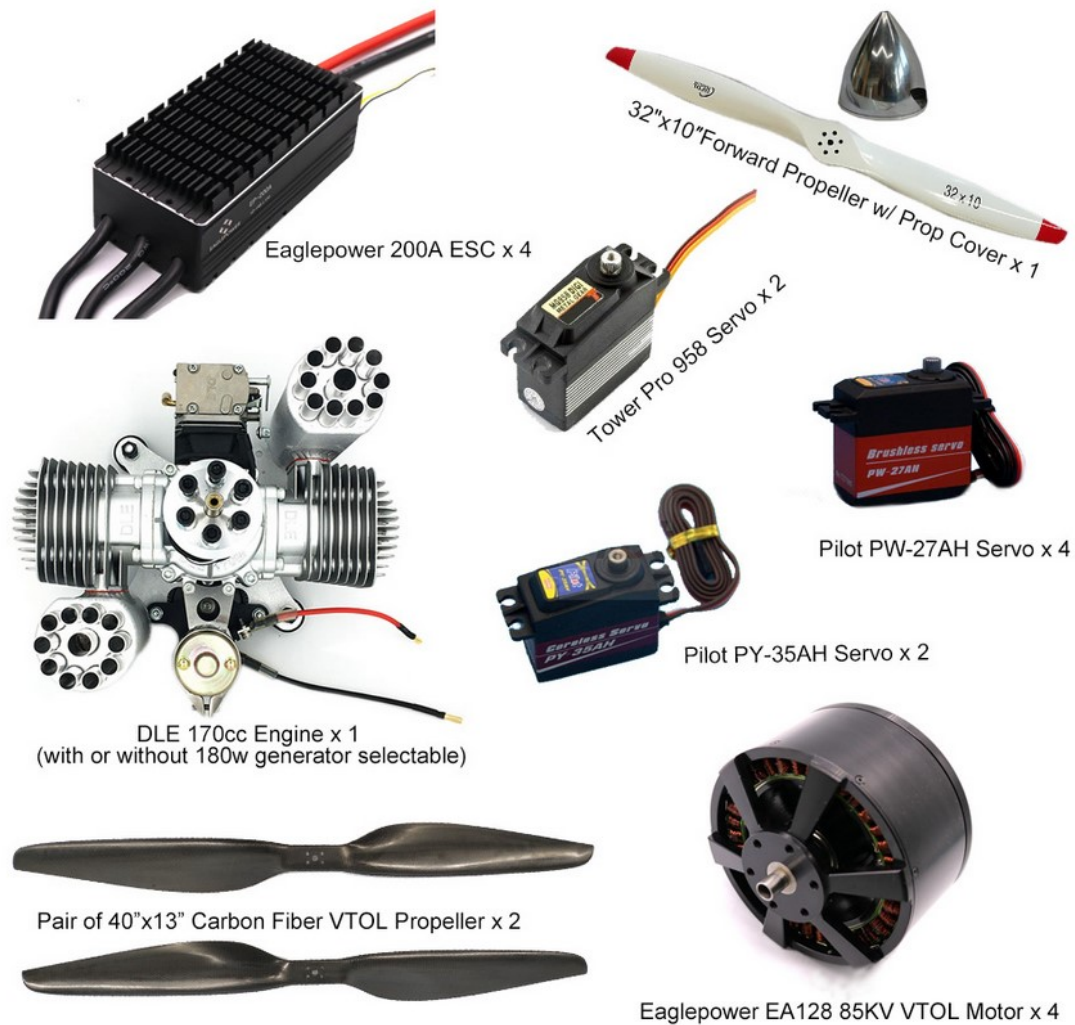


Parts of 4450 VTOL Frame Kit



Items Included in Power Package & Build Kit

Main Parts Included in Power Package:



Item List of Build Kit:

Description	QTY
Servo inverter / input voltage 6-12V	1
Long UAV Pitot Tube	1
Pitot Tube Base	1
Silicone wire 7# black, 1 meter long	4
Silicone wire 7# red, 1 meter long	4
Hobbywing External BEC DC Voltage Regulator UBEC 25A	1



Soft silicone wire 8AWG, blue, 1 meter long	1
Amass AS150 7mm gold-plated spark-proof plug, red and black, two pairs per set	4
Amass XT150 plug 6mm gold-plated banana head, pair (red, black and blue)	12
Soft silicone wire 8AWG black 1 meter long	1
Soft silicone wire 8AWG red 1 meter long	1
DB15 Female Pin 10U	3
DB15 Male Pin 10U	3
DB25 Female Pin 10U	1
DB25 Male Pin 10U	1
Amass XT90S anti-sparking plug 4.5mm upgrade pair of male and female	4
Mugin dedicated 60 core servo cable (red, black and white 3 colors)	22
10AWG silicone wire black 1M	8
10AWG silicone wire 1M red	8
Silicone wire 24# yellow, 1 meter	5
#2 heat shrinkable tube black 20cm	10
#10 heat shrinkable tube black 50cm	4
24AWG silicone wire black 1 meter	5
24AWG silicone wire red 1 meter	5
3M square rounded double-sided tape	2
#4 heat shrinkable tube black 50cm	4
#5 heat shrinkable tube black 50cm	4
AMASS XT60 female plug	2
AMASS XT60 male plug	2
Servo Cable Connector Set	25
Servo Extension Cable Clamp	4

1. Aileron installation

- A. Drilling is required for servo installation.
- B. Make certain the drilling locations are correct.
- C. Remember to mark the functions of each wire while soldering.
- D. Install sleeves before wiring.
- E. Make certain the positive and negative are wired correct.





2. Rudder installation

- A. Drilling is required for servo installation.
- B. Make certain the drilling locations are correct.
- C. Remember to mark the functions of each wire while soldering.
- D. Install sleeves before wiring.
- E. Please test the wiring before applying the glue.



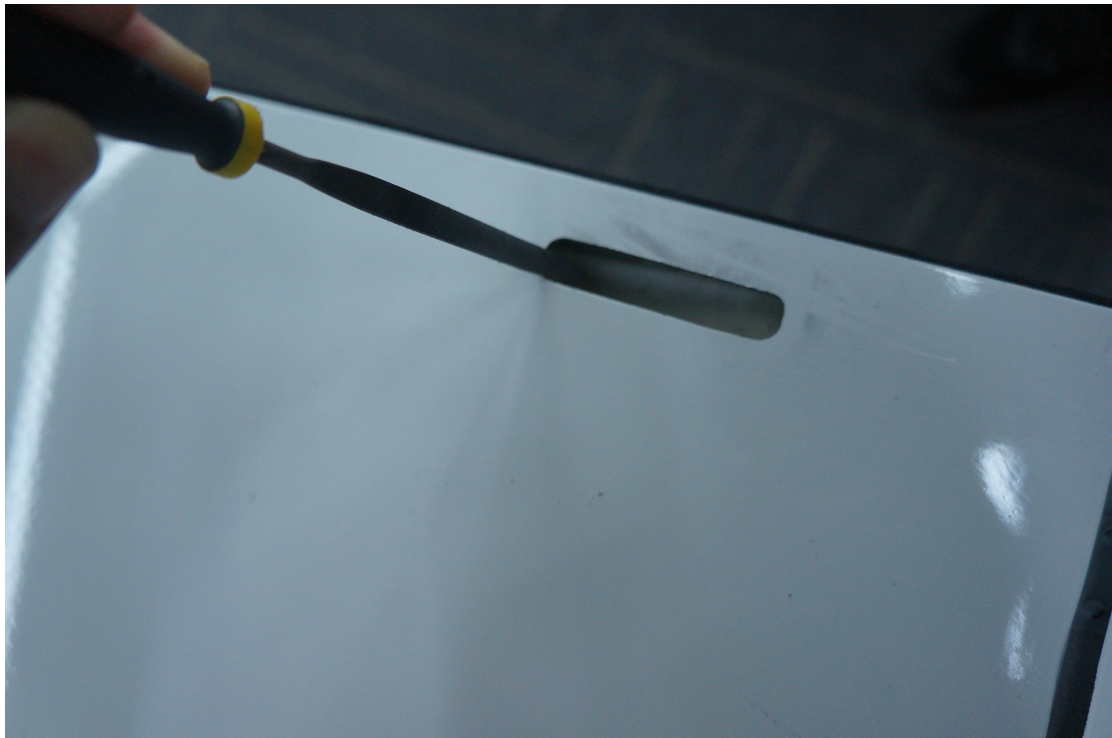




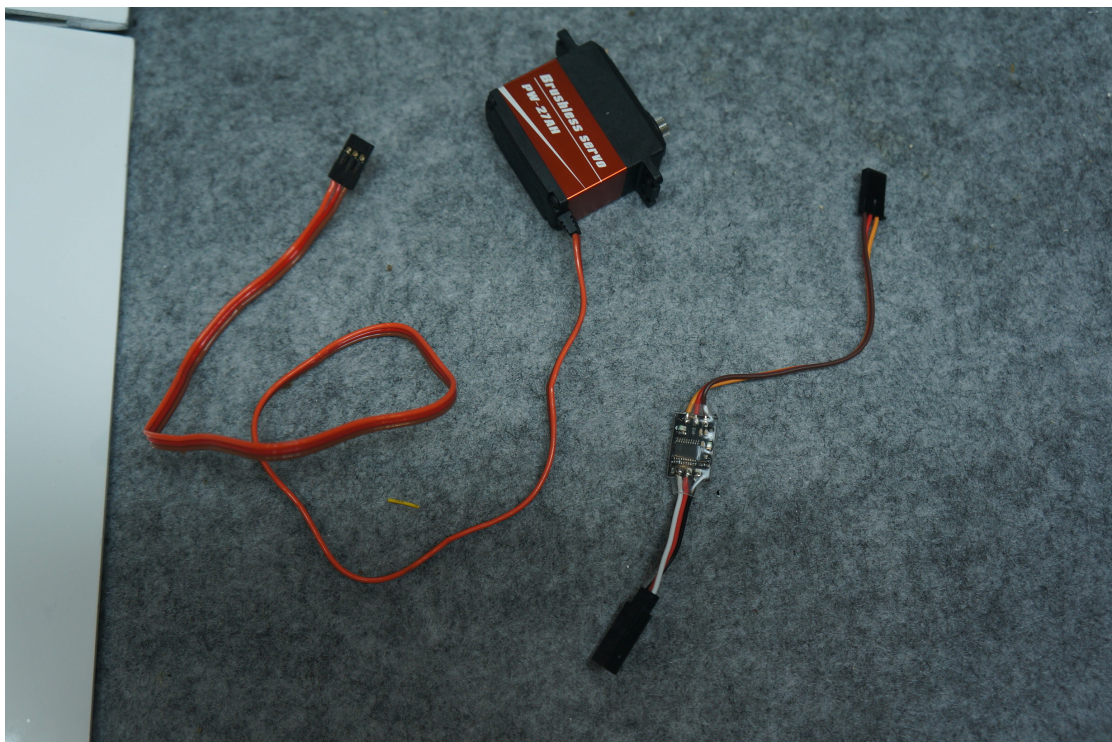
3. Elevator installation

- A. Drilling and polishing are required for servo installation.
- B. Make certain the drilling locations are correct.
- C. Remember to mark the functions of each wire after soldering.
- D. Please check and test the wiring before installation.







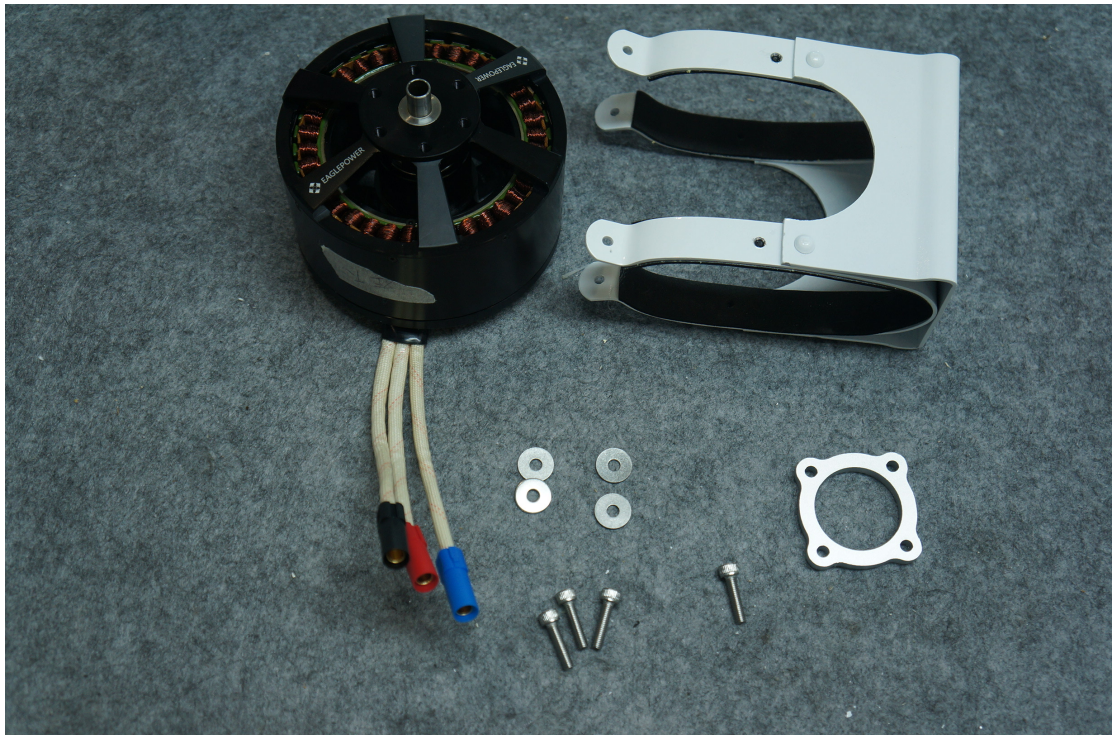


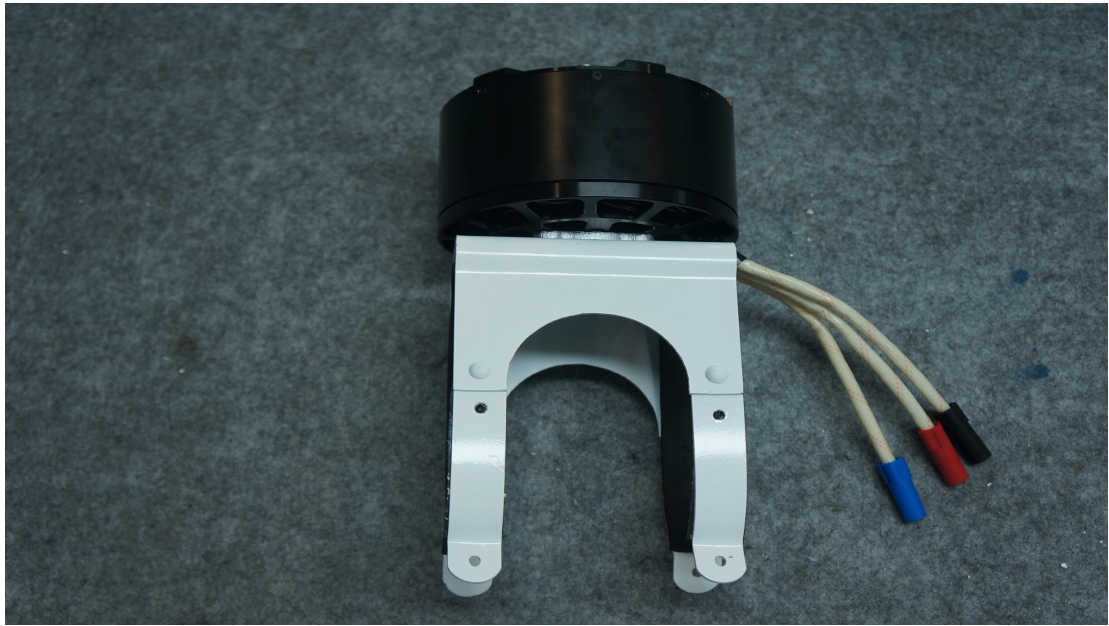


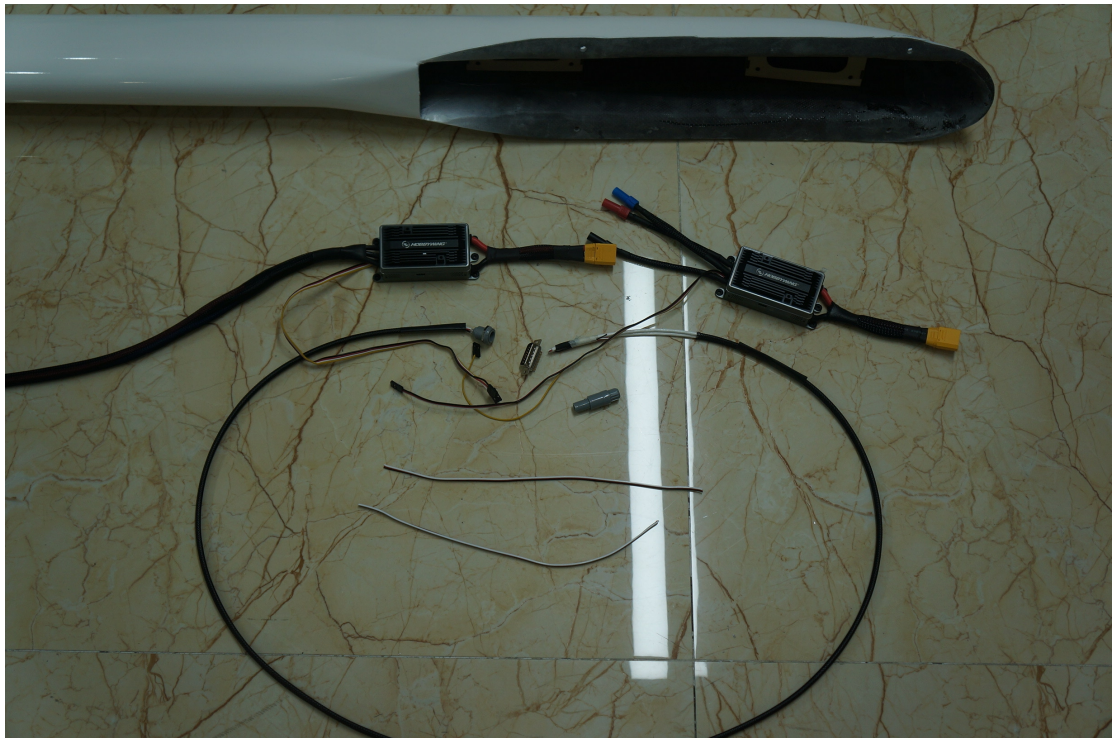
4. Boom installation

- A. Drilling is required for the wiring & installation of motors and ESCs.
- B. The motor base is inclined for installation. Make certain the installations are without problem.
- C. Make certain the drilling locations are correct.
- D. Make the wire lengths are suitable before wiring.
- E. Mark the functions of each wire before wiring.
- F. Make certain the positive and negative are wired correct.
- G. Test it first after wiring to make sure there's no mistake, and then apply the glue and seal.















5. Motor mount location

(pay attention to the direction of the hole positions while drilling)

- * 78cm from front motor to the leading edge of center wing
- * 77cm from rear motor to the trailing edge of center wing







6. Inside wiring

- A. Make certain the positive and negative are wired correct.
- B. Make certain there is no inoperative soldering.
- C. Mark the wire sequences for easier operation.





7. Center wing installation.

- A. Measure the lengths before wiring.
- B. Mark the functions of each wire before wiring to avoid the possible mistakes.
- C. Make certain the positive and negative are correctly wired.
- D. No inexact soldering.
- E. Install the sleeves before wiring.
- F. Check after the wiring is completed, and then apply the glue and seal.





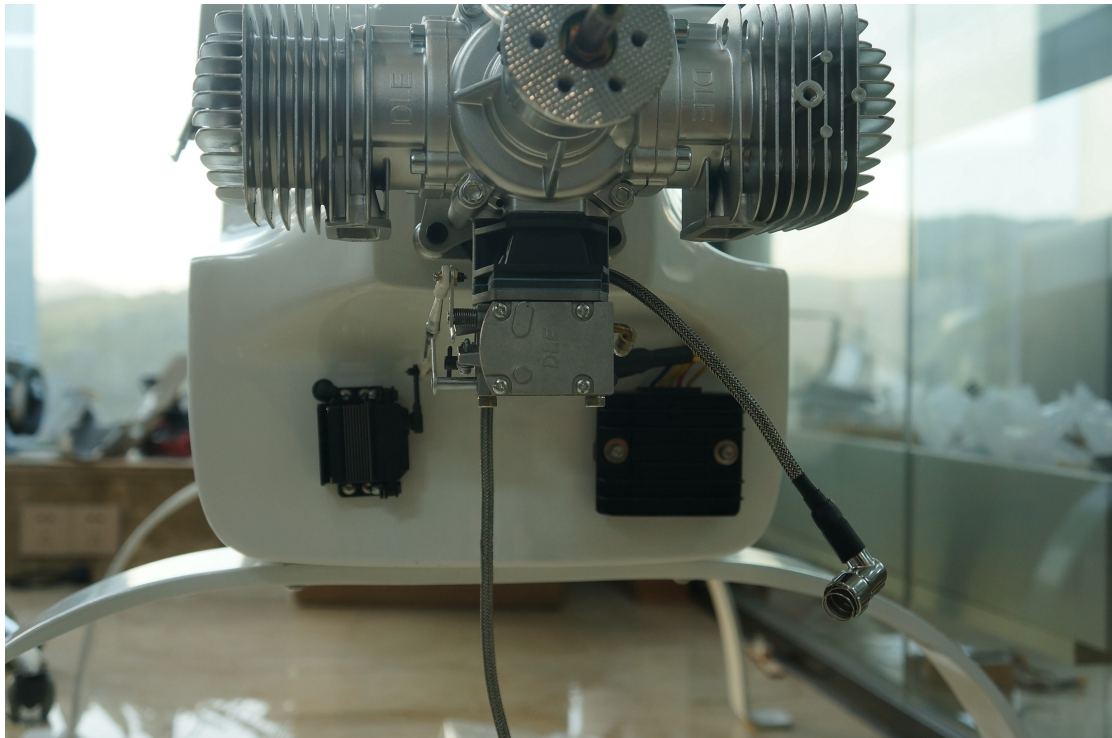
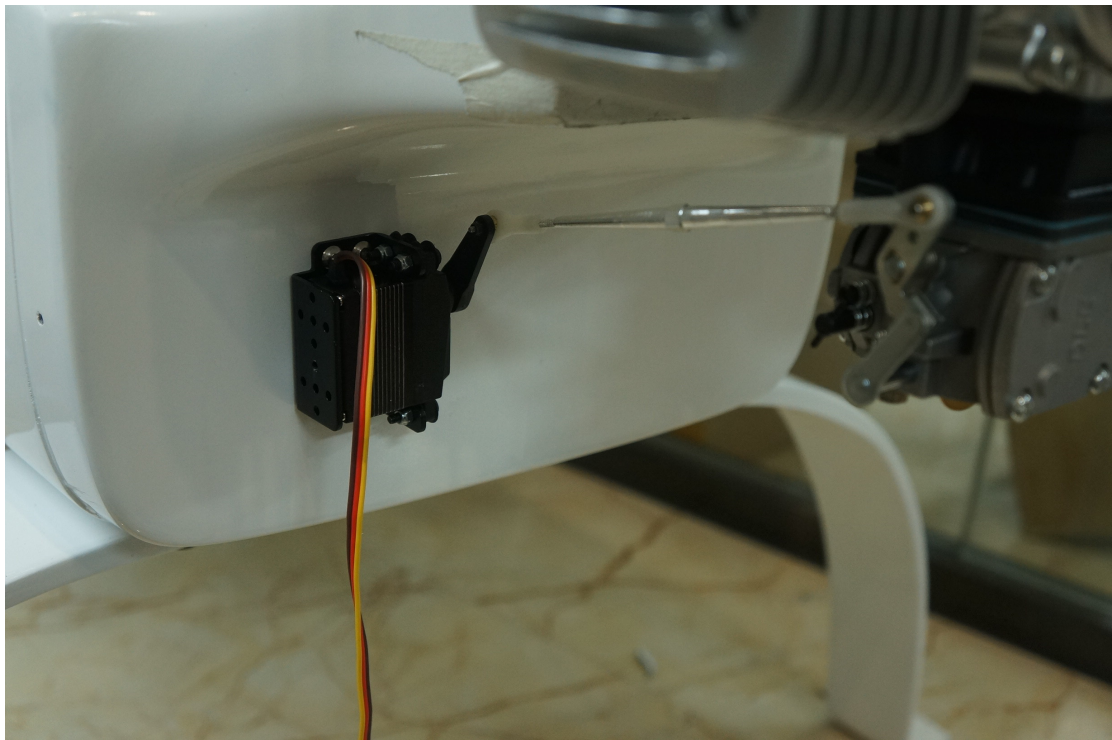


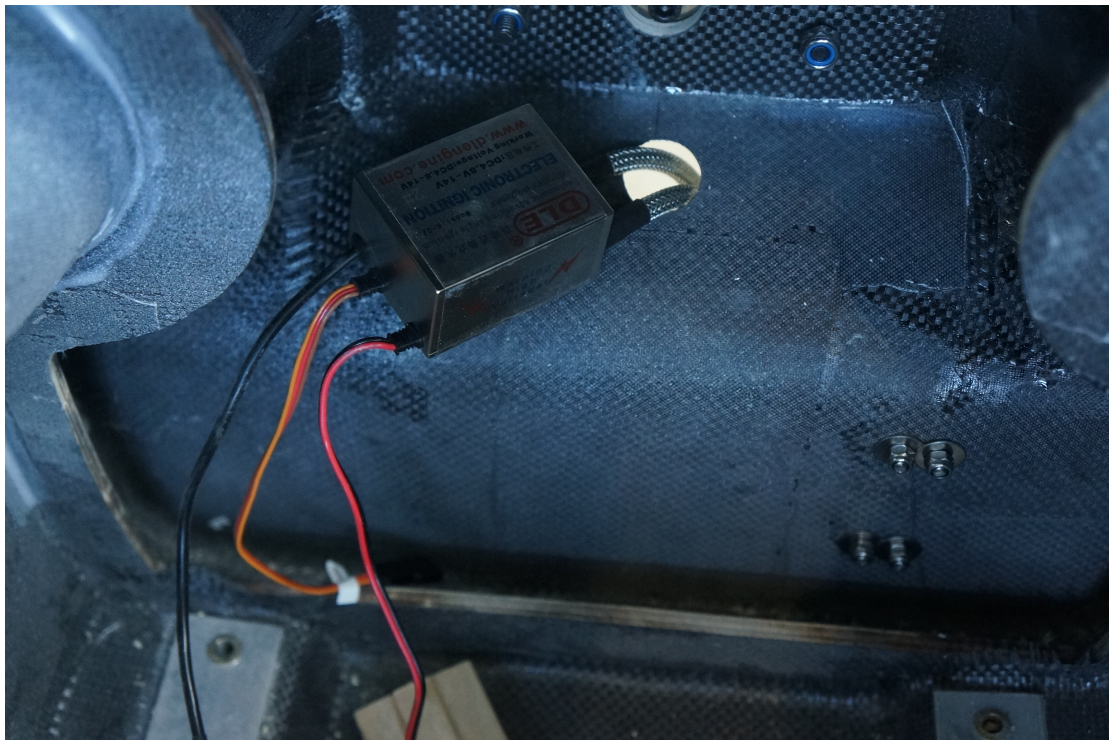
8. Fuselage installation.

- A. Drilling and polishing are required while install the engine.
- B. Better place metal plate on the base before installing the engine.
- C. Make certain the drilling holes are in correct locations.
- D. Do not squeeze or bend the oil pipe while installing.
- E. No special requirement for the servo installing locations.

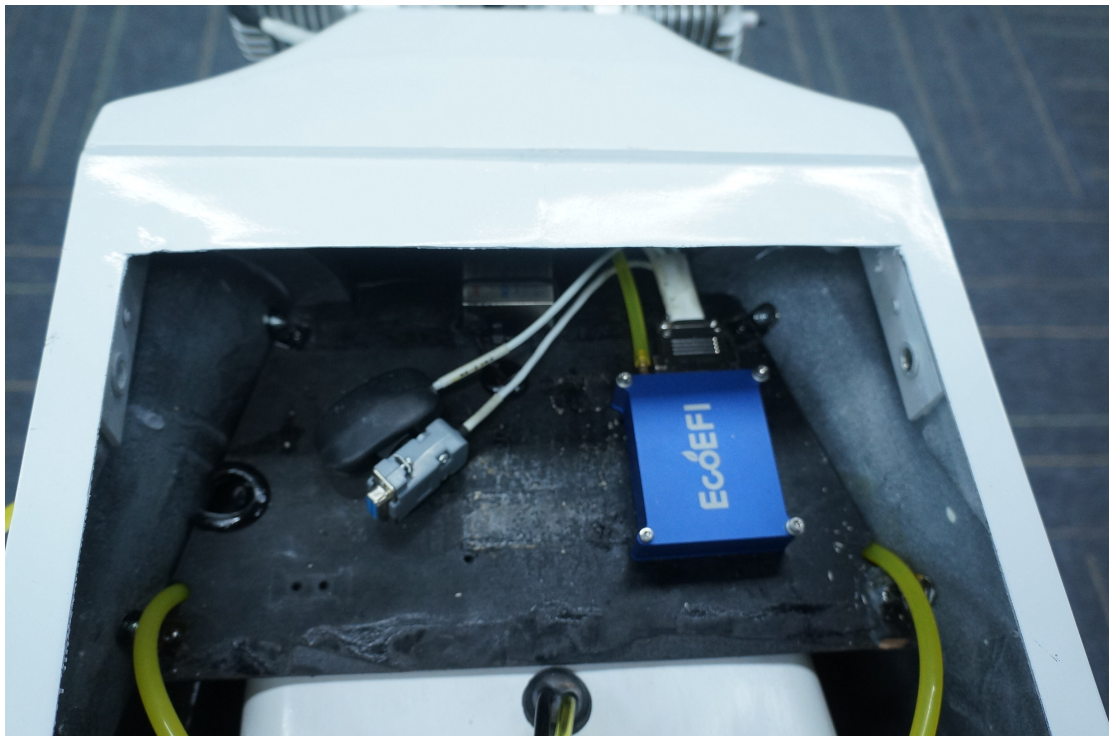
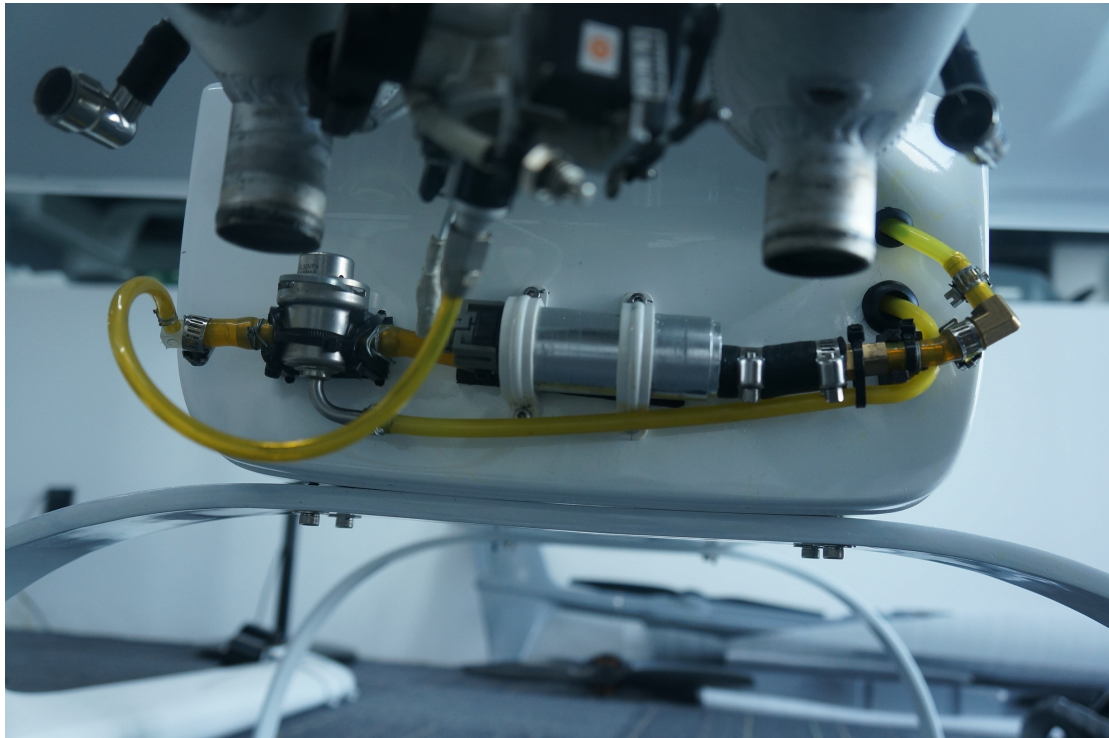








If you are installing EFI on the engine, please take a reference to the pictures below:



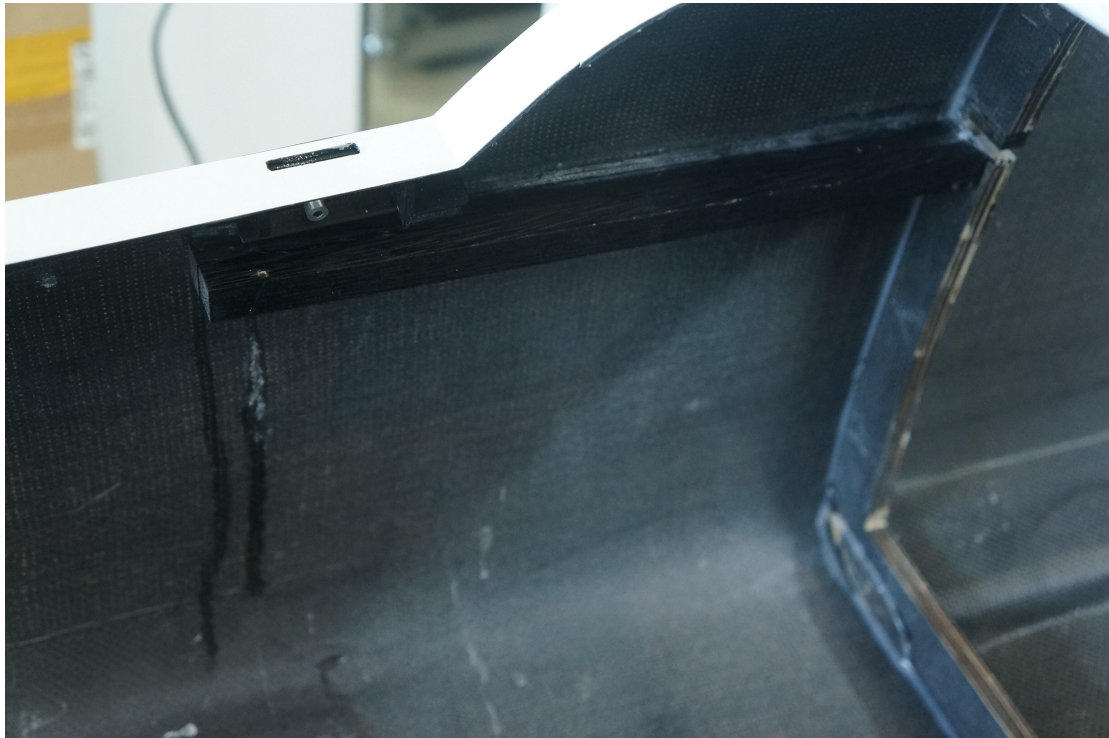
9. Engine cover installation.

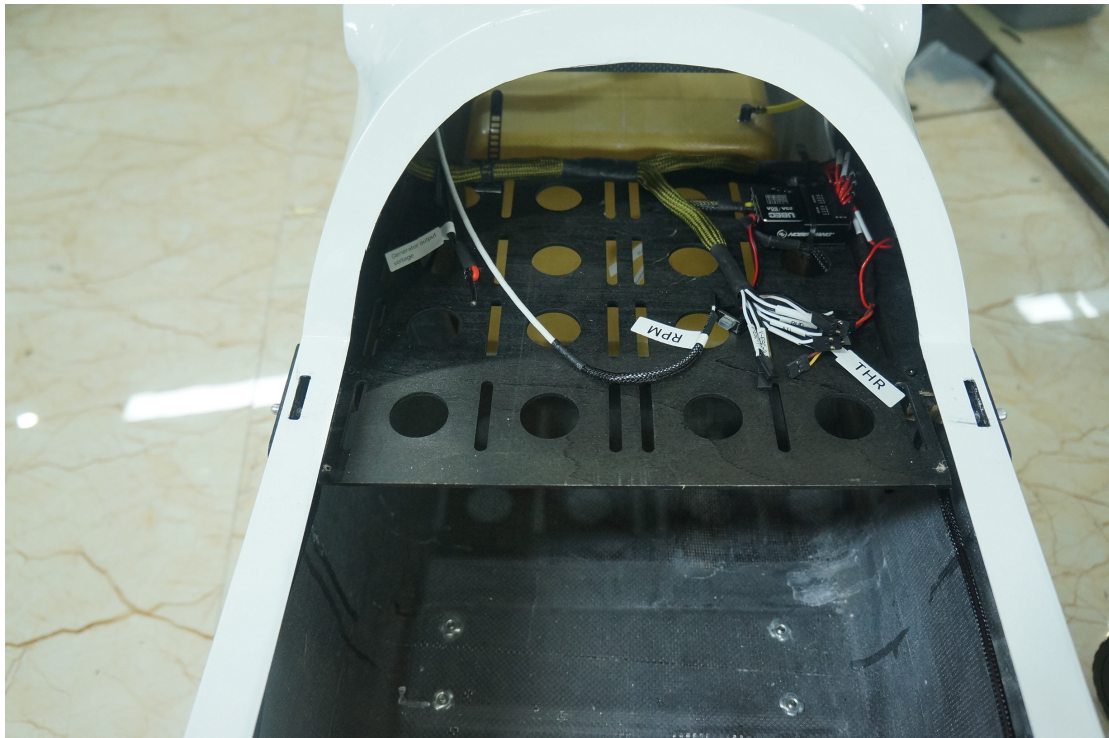
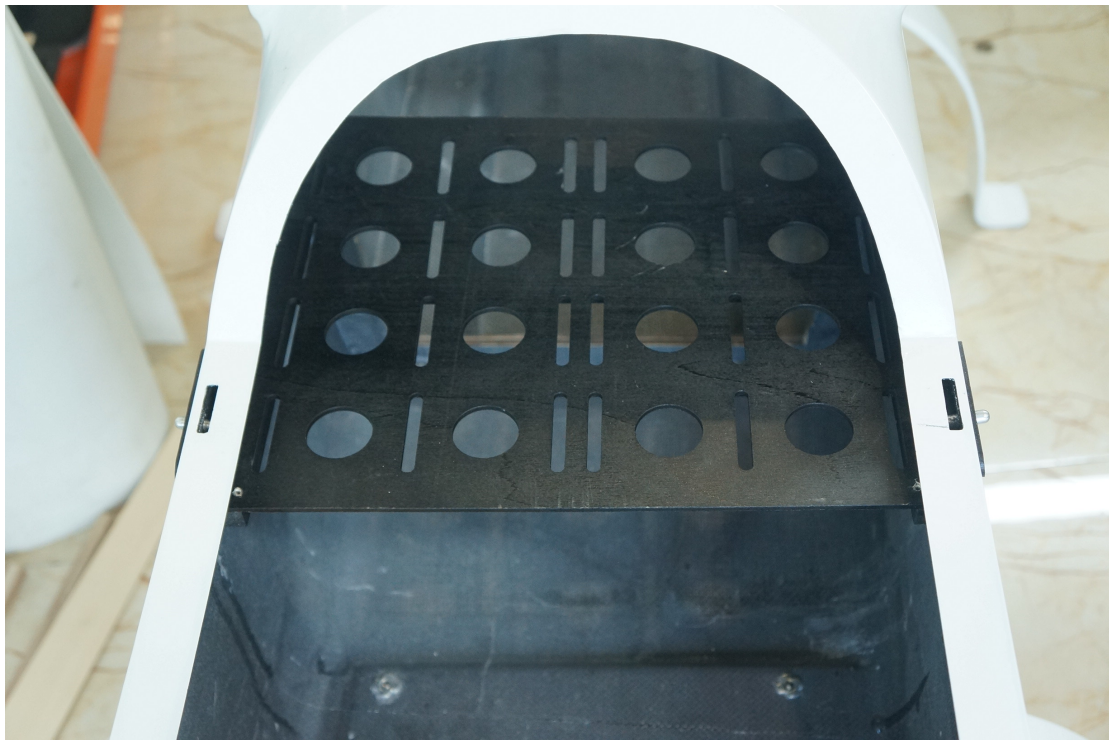
The installation of engine cover requires drilling and polishing.





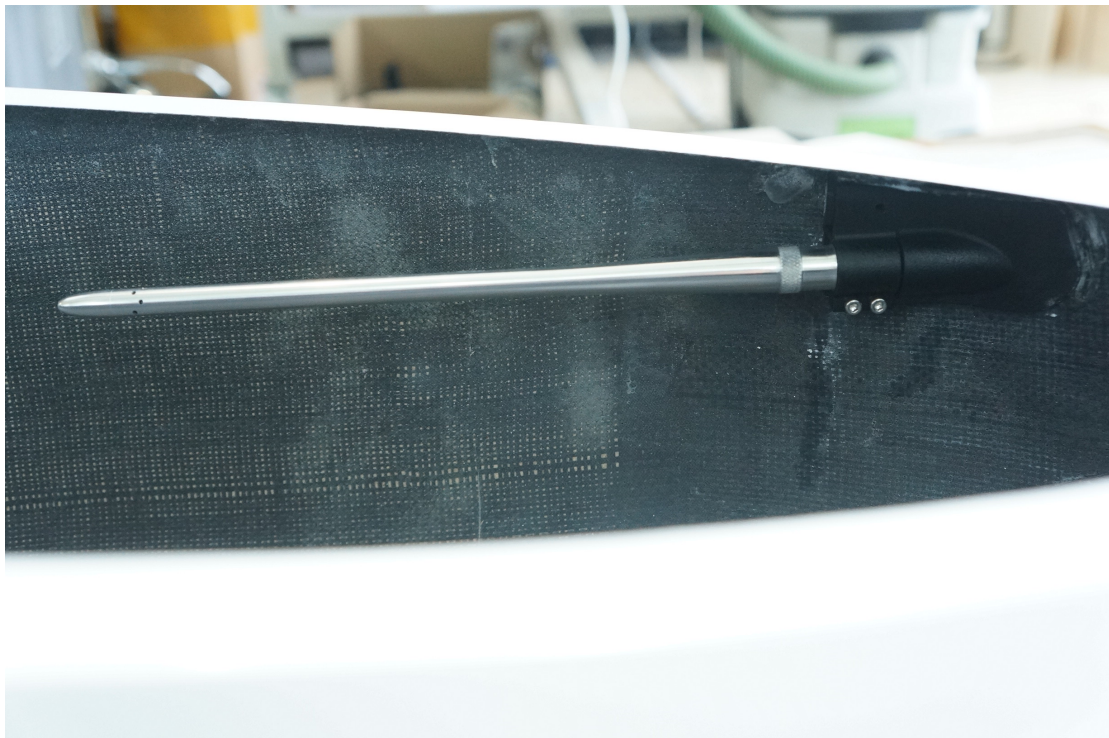
10. Flight Controller Board Installation





11. Pitot tube installation.

Drilling is required for the installation.





12. Landing gear installation.



Now, the installation for the power system completed.

A. Make certain the wires and wired correctly before powering on.

B. Make certain the positive and negative are correct.

C. Make certain apply the screw glue when use the screws.

