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Global Professional RC ModeL Brand

Installation Manual

104 “Extra NG 100-130cc



Zhuhai Edge smart drive technology Co., Ltd

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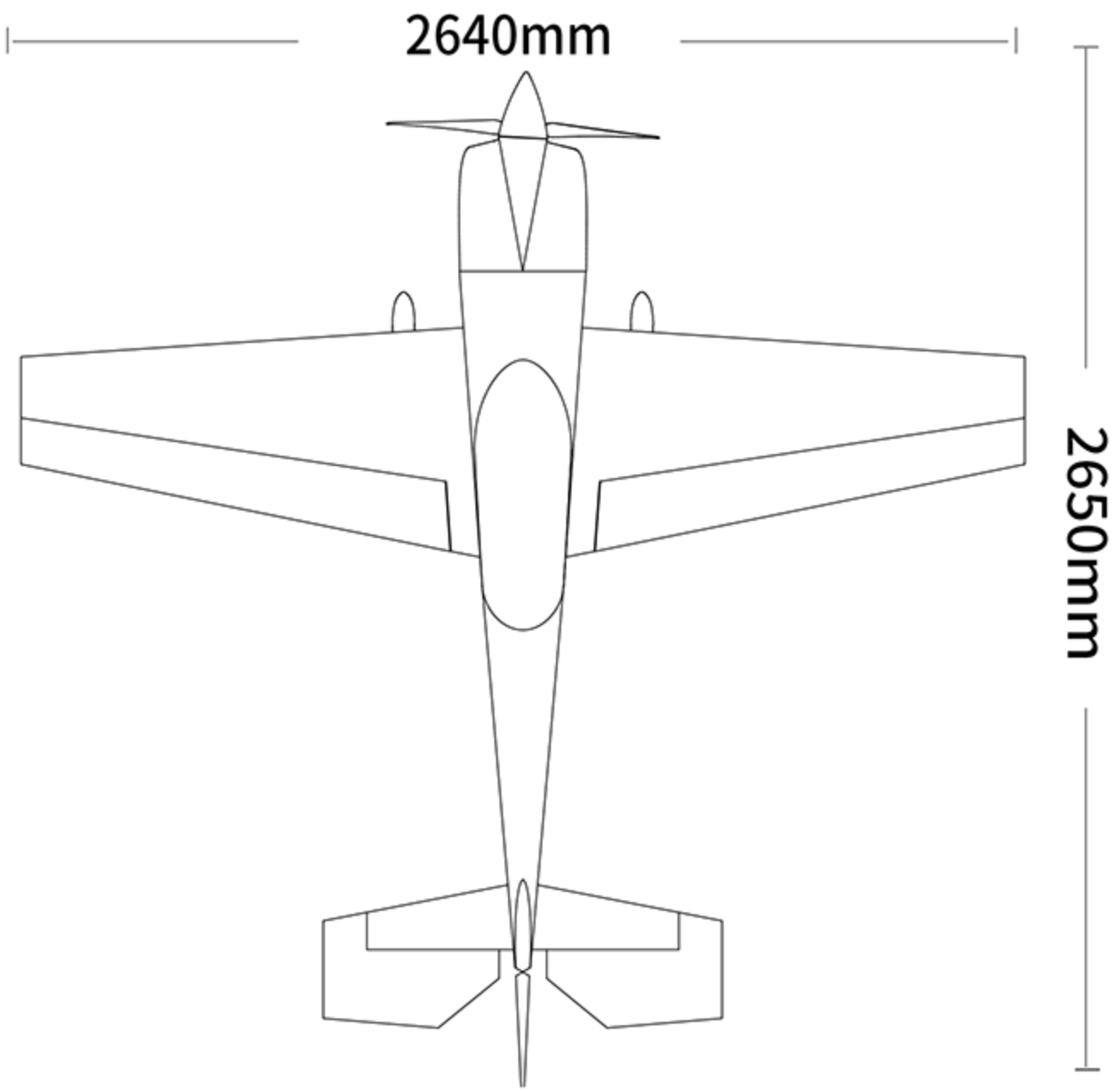
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104"Extra NG
Balsa Wood Airplane

OMPHobby 104” Extra NG 100-130cc is a great all-around plane with a wide range of flying styles. This design not only has an excellent 3D performance both at low speed and high energy manoeuvres due to his manoeuvrability and predictability, but it’s also tracking great into precision flying. Our proven quick-release system is used for wings, horizontal stabilizers and canopy, significantly reducing the installation time at the field. Plane comes with hinges already glued and sealed, carbon fiber spinner, all the needed hardware and each aircraft has a metal nameplate with a unique serial number.



Product Specification



Item:
104” Extra NG

Wingspan
2640mm(104in)

Full Length
2650mm(104in)

Wing Area
119.86d㎡

Wing Load
102.6g/d㎡

Motor Thrust Angles
Down 0° & Right 3°

Gross Weight:
12-12.5KG

The Center of Gravity (CG):
Approx.170mm-205mm

Wing Angle Of Incidence
0°

Servo:
40~55Kg.cm*9 (Aileron*4, Elevato*2, Rudder*2, Throttle*1)

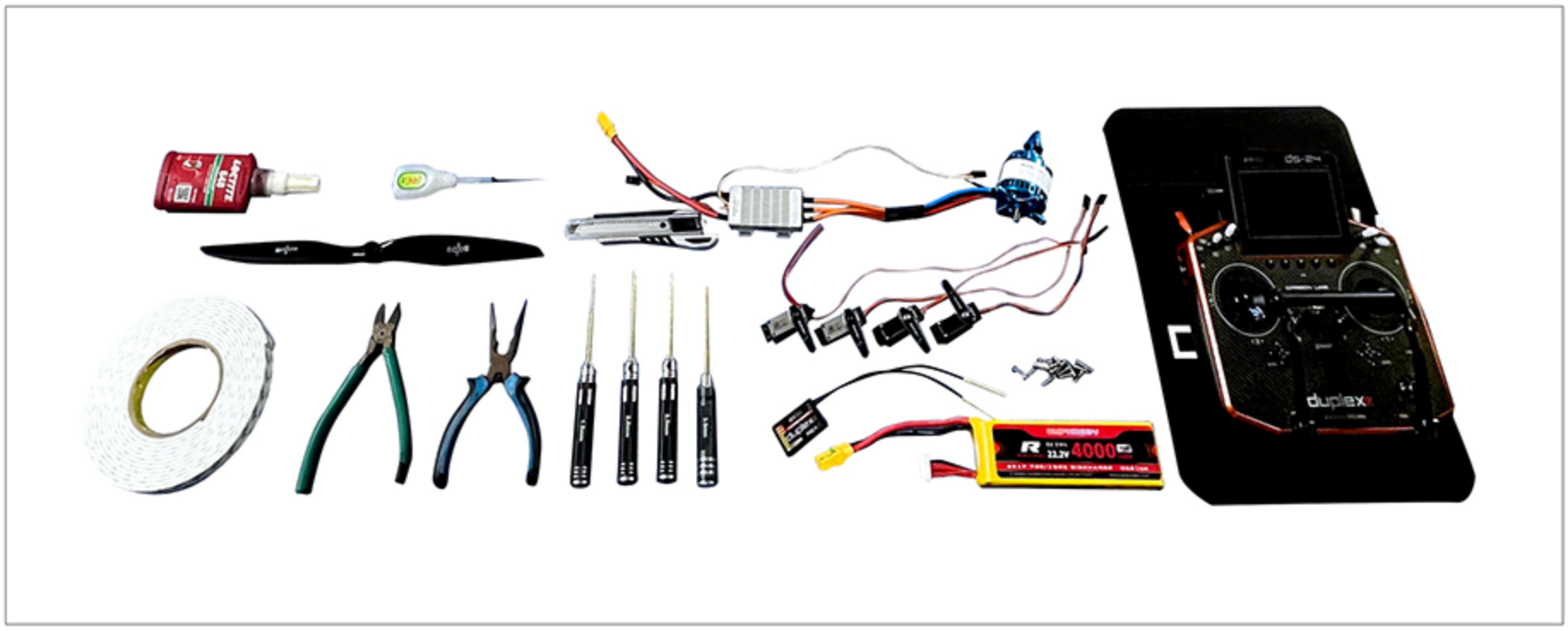
Servo Arm:
2" 25T Servo Arm

Electric Power (Recommended):
Engine: 120-130CC, Propeller:28x10/28x11

Package contents (ARF version)



Tools Needed



- Blue Painters Tape
- Denatured Alcohol & Paper Towels
- Blue Loctite
- Metric & Standard Allen Wrenches
- Hobby Knife & Fresh Blades
- 15 – 30 Minute Epoxy (or Gorilla Glue)
- Thin C/A
- Electric Drill with Assorted Small Bits
- Small Flat Head & Phillips Screwdrivers
- Sanding Block & Sandpaper
- Needle Nose Pliers
- Adjustable Wrench or Socket Set
- Measuring Tape & Ruler
- Fine-tip Sharpie Marker

Landing gear installation

① Unscrew the hexagon screws from the fuselage. Then use them to bolt the carbon fiber landing gear to the fuselage using threadlocker. Be careful to install it with the slight sweep and the airfoil facing the front.





② Slide the cuffs through the landing gear and secure them with the provided screws. Be careful to not break the screws and cuffs by over-tightening them. If the screws seem to be difficult to insert, use a drill to open up the hole a bit. (Some people prefer a dob of silicone inside the cuff to hold them.) The cuffs will keep the landing gear cover in place.





③ Install wheels by using the provided washers and screws. Slide them inside the wheel pants and then bolt them to the landing gear with the metal plate on the inside as shown in the photo. Use threadlocker to secure all the screws.





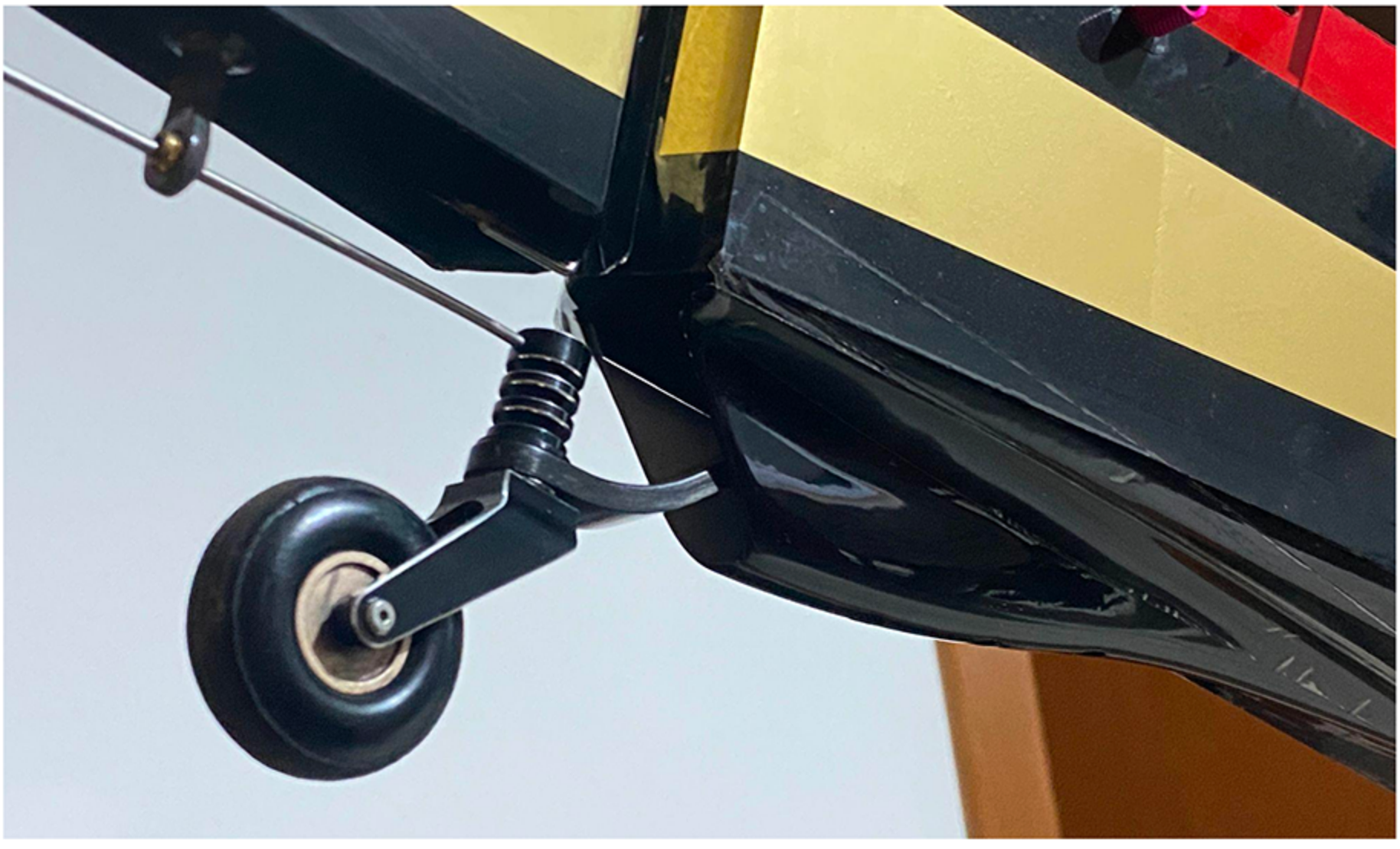


Tail gear installation

Install the tail wheel assembly with the provided socket head screws and washers, using threadlocker. Install the tail gear cuff as well, by using a contact glue such as CA or you can just tape it.



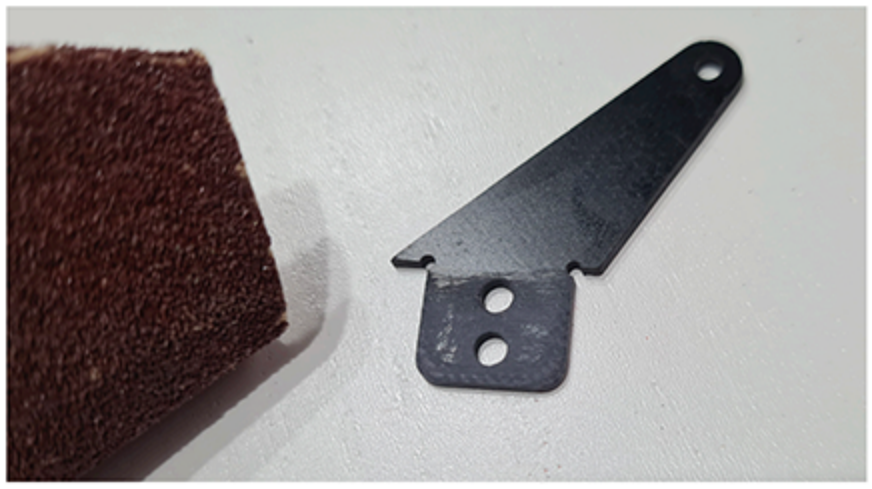




Control horns installation

① If not already opened, find the slots which have been made on elevators, ailerons, rudder, and carefully cut the covering. Use sandpaper to scuff the root of control horns for a good glue bond.

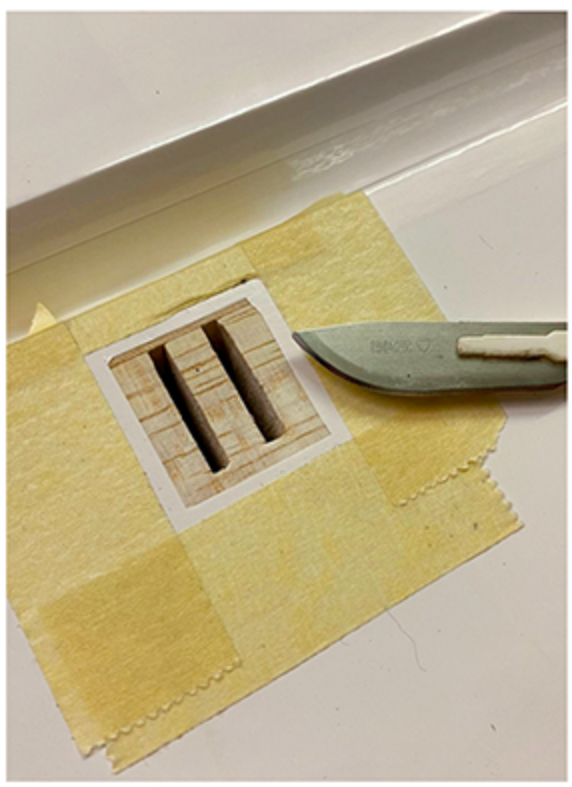


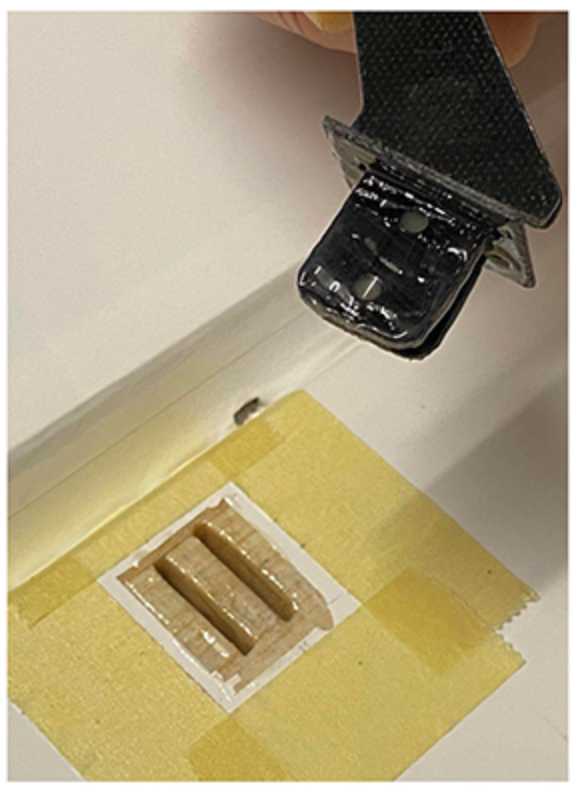


② Slide the cuffs through the landing gear and secure them with the provided screws. Be careful to not break the screws and cuffs by over-tightening them. If the screws seem to be difficult to insert, use a drill to open up the hole a bit. (Some people prefer a dob of silicone inside the cuff to hold them.) The cuffs will keep the landing gear cover in place.

③ Slide the horns through the reinforcing plate, try a dry fit first making sure they are positioned correctly (hole must be directly above the hinge line) then stick masking tape around as shown in the picture and cut about 1-2 mm inside with a sharp knife and remove the covering.







Servos installation

Install the servos using screws, washers and nuts as shown in the photos. With servos in neutral position, place the servo arm perpendicular to the servo case on elevators, and parallel to the hinge line on ailerons and rudder; then adjust the length of the linkage. We recommend putting a drop of CA on the four holes to have a stronger area where servos are screwed.

① On ailerons we have been able to reach the desired throw by using a 1,5" on the 1,25" hole

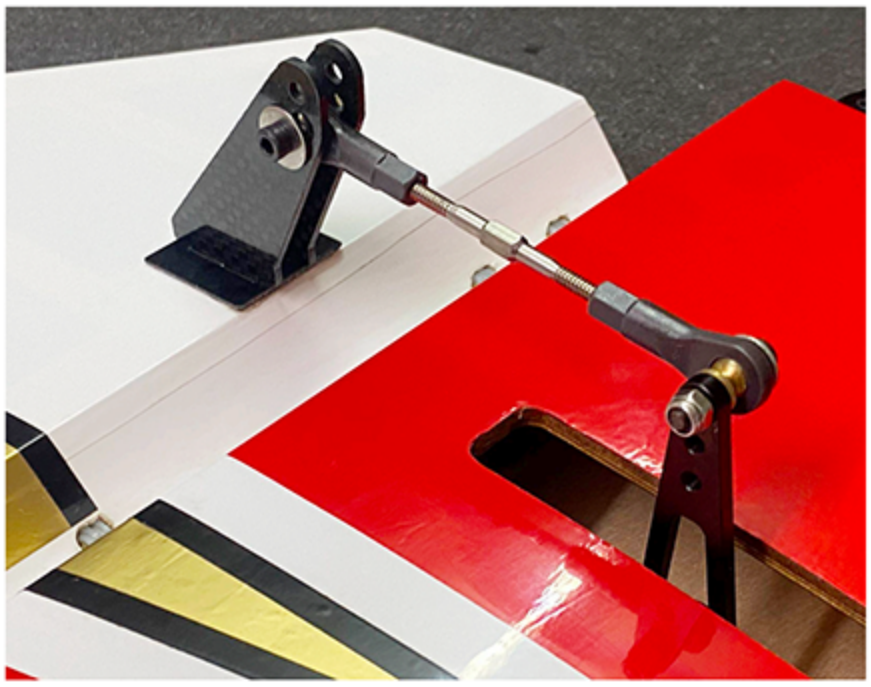


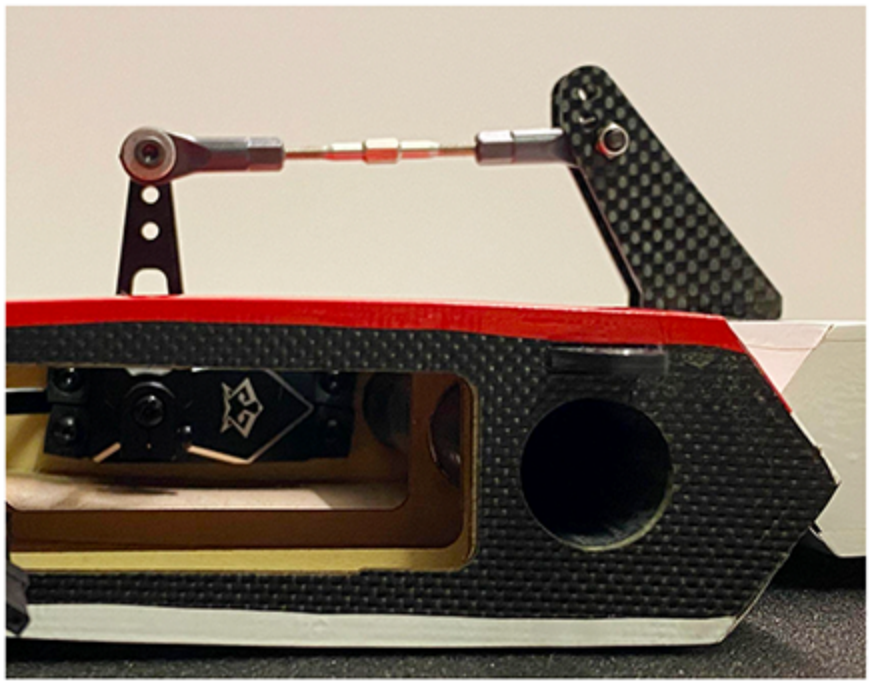




Servos installation

② On elevators we used the servo arm on the 1,75” hole.



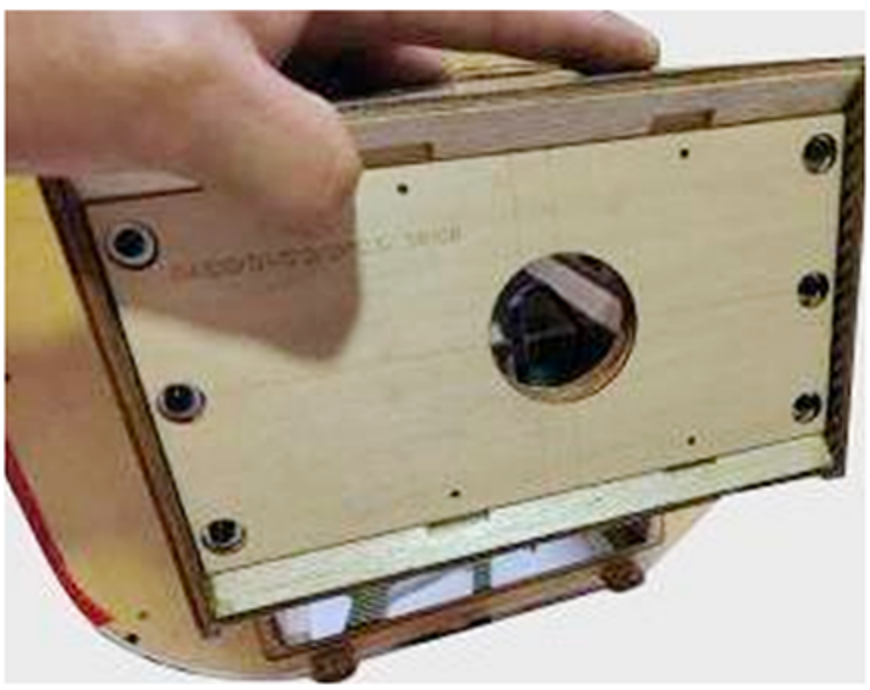


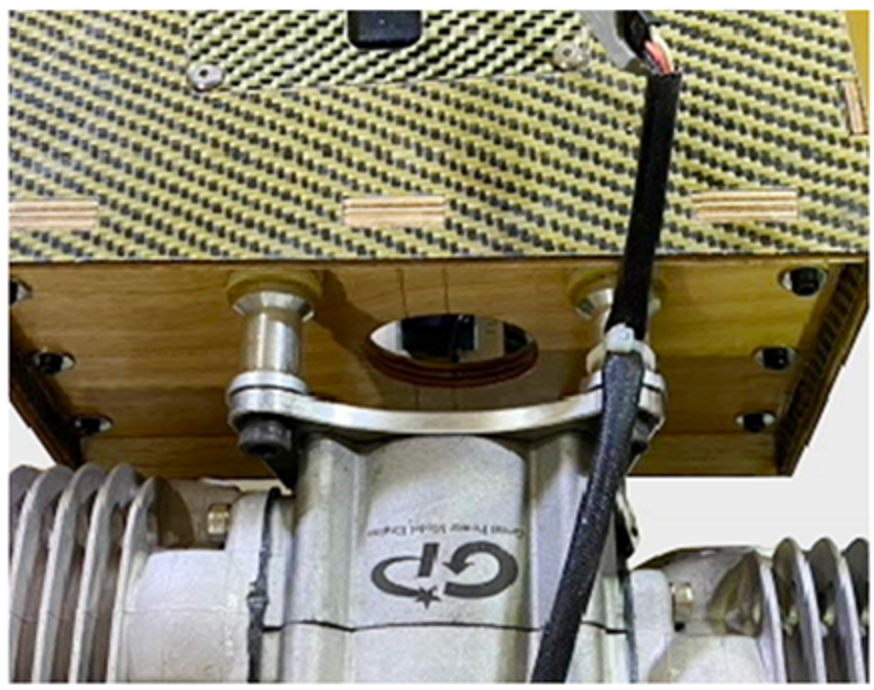
③ On the rudder you can get the maximum deflection with a 1,5” arm.



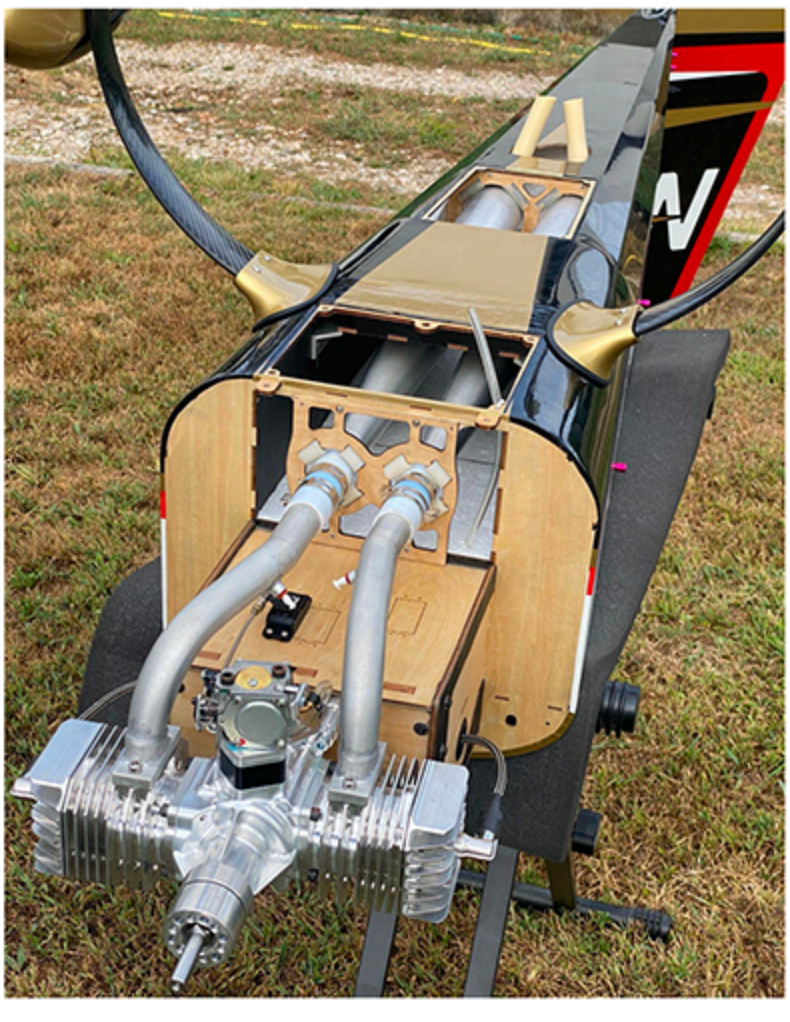
Engine and throttle servo installation

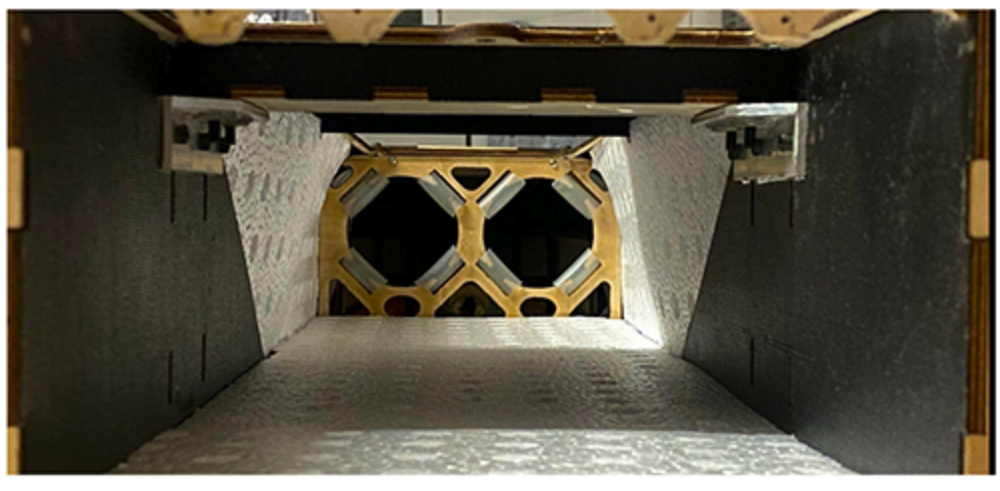
① Use the provided wood template to mark the position of the engine, then drill the firewall carefully. Check the distance between the firewall and the front of the cowl and choose which spacers to use that are included in the kit. On the inside, use a big washer and locking nut to secure the engine.





② Here is an example with tuned pipes installed.
If you are using canisters or tuned pipes we raccommand building a tunnel as shown in order not to overheat the electronics and equipment.

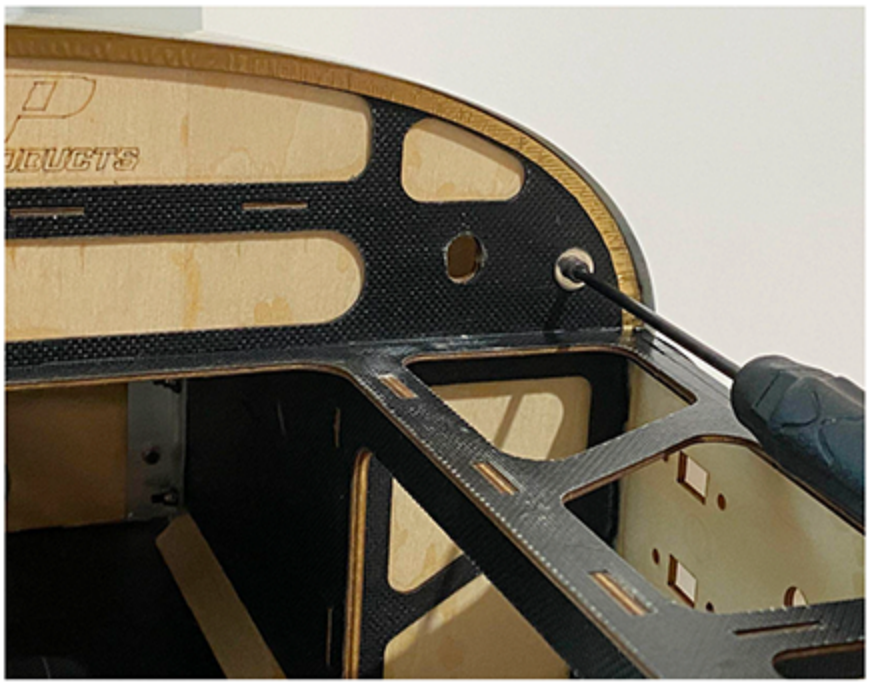






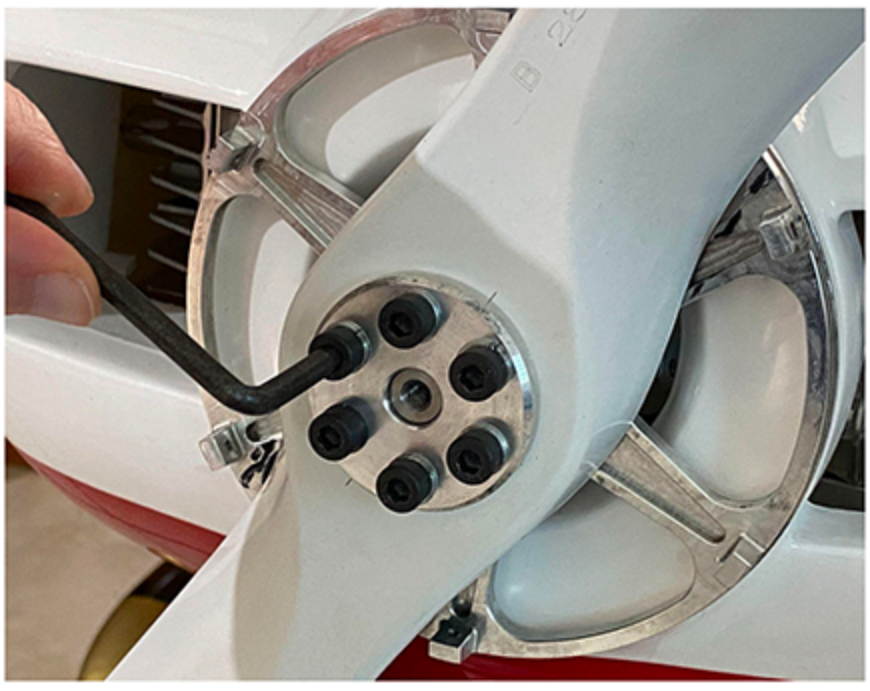
Cowl, propeller and spinner installation

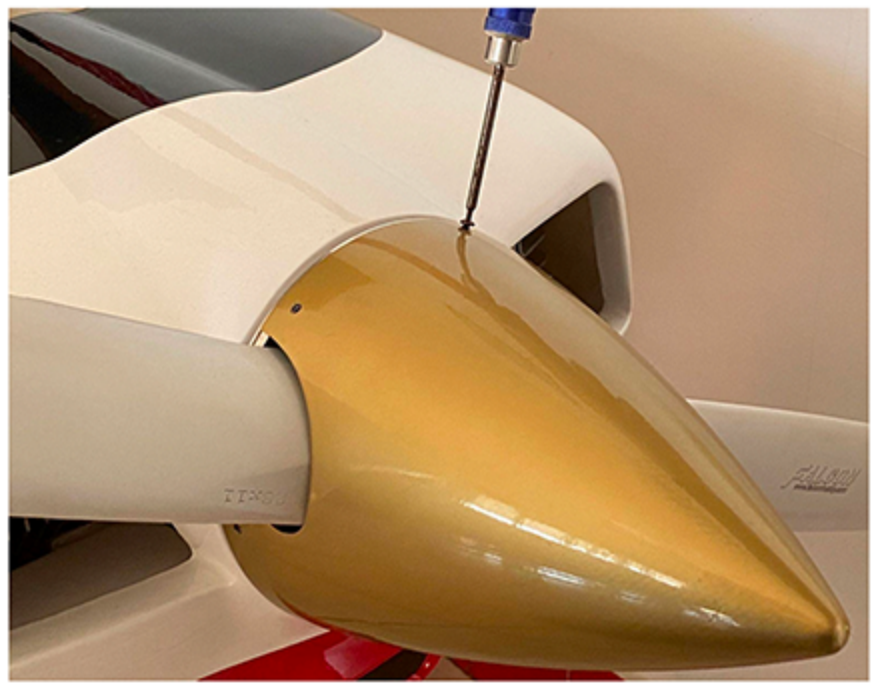
① Put the cowling on and secure it with the provided screws and washer as shown in the photo. There are two from the inside of the canopy and two on the bottom.





② Slide the aluminium spinner-backplate on the engine, bolt the prop equally tightening the six screws, then install the carbon fibre spinner by screwing the provided M2.5 screws with a 1,5mm hexagon screwdriver.





CG and Final settings

This plane has a wide range for CG and it won't be critical if not too wrong. However,we found out that a range between 170-205mm (measured at the wing root, from the leading edge) suits better to our pilots' liking and therefore it's a good starting point.

Recommended throws are as follows:

Ailerons:
Low rates 15-20° and 30-40% expo
High rates 38° up - 37°down and 50-70% expo

Elevator:
Low rates 15-25° and 30-40% expo
High rates 45-55° and 60-70% expo

Elevator:
Low rates 30-35° and 30-40% expo
High rates 45° or more and 50-70% expo



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For customer support outside of the USA, please contact OMPHobby in China.

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Website: www.omphobby.com

Disclaimer and Safety

- This product is not a toy. It is not recommended for children under age 14.
- Fly the airplane by abiding by local laws and rules.
- Fly the airplane in a designated location, and always maintain visual contact of the aircraft.
- Avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- Read the safe code of AMA before flight. The guideline can be downloaded from the following link: https://www.modelaircraft.org/sites/default/files/documents/100.pdf