

# *H-KING TL2000 Sports Plane with Floats or Wheels*



# INSTRUCTION MANUAL

## INTRODUCTION.

*The H-King TL2000 EPO RC Plane (PnF) is a fun plane to fly and has both wheels and floats in the kit so you can fly off land or water. The wingspan is 1160mm so it can easily fit in your car for transport to your favorite flying areas. The TL2000 is built from tough EPO foam so it will take all the knocks and bangs in its stride.*

*The TL2000 is a single-engine, two-seat ultralight which was designed in the Czech Republic. It first flew in 1997 and is a low wing monoplane with a large bubble canopy for excellent visibility.*

*The H-King TL2000 comes complete with motor, ESC and servos pre-fitted to make assembly easy and very quick. The horizontal stabilizer is glued on but the wings and the float option are held in place with thumb screws. The wheel undercarriage is held on with screws and the nosewheel and water rudder are held in place with grub screws. All you need to supply is a battery, transmitter and receiver.*

*The powerful 2838-1500KV brushless motor combined with a 3-blade prop has lots of power to do exciting aerobatics like loops and rolls. It also has fitted a 40 amp brushless ESC with 3 amp BEC and 4 x 9g servos*

## ***SAFETY INSTRUCTIONS***

- 1. Please read this manual carefully and follow the instructions before you use this product.*
- 2. This airplane is not a toy, due to its advanced flying qualities it is only suitable for pilots with intermediate or higher experience. If you are a novice then please only operate with the assistance of an experienced pilot.*
- 3. Not recommended for children under 14 years old.*
- 4. Please set up this plane according to the instructions and make sure you keep your hands and other parts of your body out of the way of the rotating propeller at all times. Failure to do so will result in damage to yourself and to the airplane.*
- 5. Do not fly in thunderstorms, strong winds or wet weather.*
- 6. Never fly R/C planes where there are overhead power lines, automobiles, airports, railway lines or near a highway.*
- 7. Never fly R/C planes where there are crowds of people or over organised games. This airplane requires a very flat landing and take-off area or lake that is clear of trees and other obstacles. Remember safety is the responsibility of the pilot.*
- 8. Do not attempt to catch the plane when you are flying it.*
- 9. The operator will bear the full responsibility of flying and the proper operation and usage of this model. We at Hobbyking will not be responsible for any liability or loss due to improper use of this model.*

## **Specifications:**

*Wingspan: 1160mm*

*Length: 888mm*

*Motor: 2838-1500KV brushless outrunner*

*ESC: 40A with 3A BEC brushless*

*Servos: 4 x 9g digital*

*Propeller: 8x4.5 3 blade*

*Weight with Floats: 1020g*

*Weight with Main Gear and Nosewheel: 940g*

*Material: EPO*

## **Features:**

- *Lightweight EPO foam fully molded with scale detail*
- *Detail cockpit including an instrument panel and factory applied decals*
- *Quick build time*
- *Efficient 3-blade propeller*
- *High power to weight ratio*
- *Water floats and rudder (included)*
- *Main U/C and nosewheel (included)*
- *Assembly hardware pack (included)*

## **Requires:**

*1 x 4ch Transmitter or greater*

*1 x 4ch Receiver or greater*

*1 x 1300mAh 3S lipoly battery*

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## KIT CONTENTS

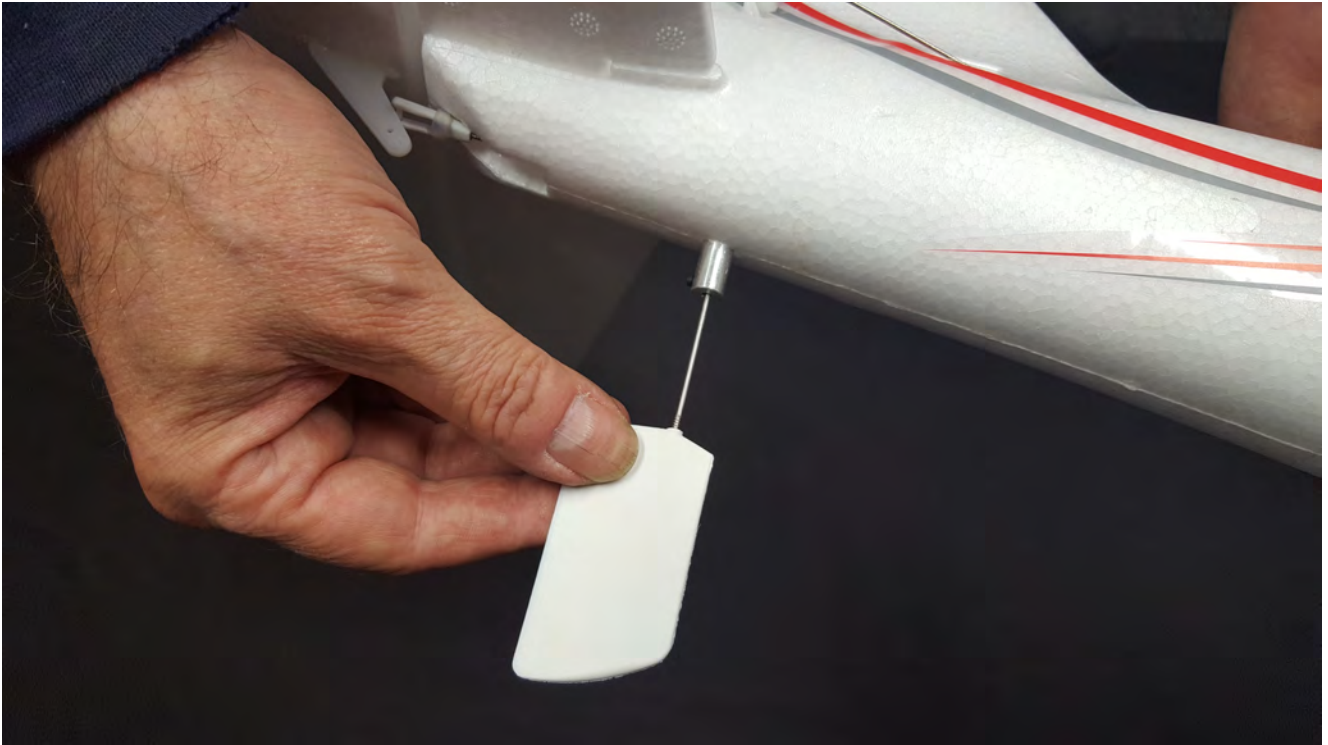




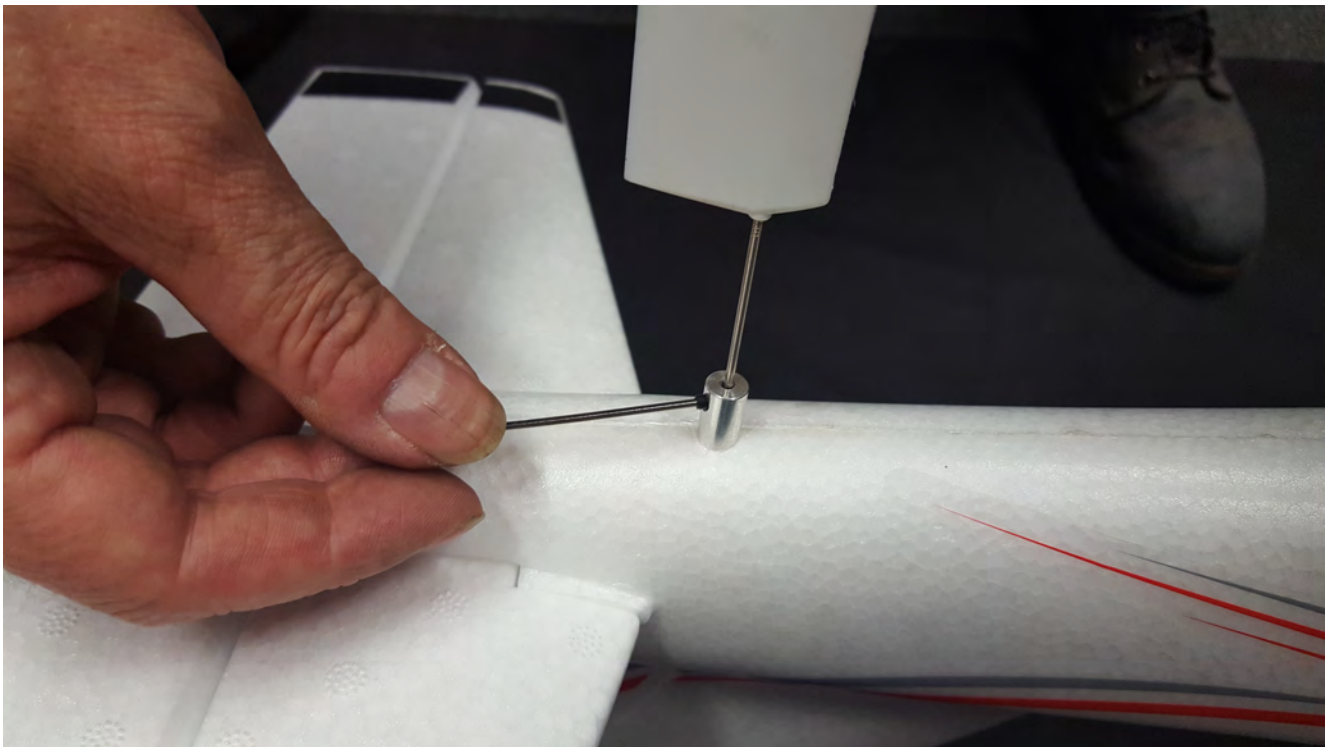
**Step 1:** Apply a medium or slow setting CA glue to the slot in the rear of the fuselage for the horizontal stabilizer.



**Step 2:** Slide the horizontal stabilizer into place ensuring it remains square and true to the fuselage while the glue sets. Once the glue has set run a small bead of glue around the joint to make sure of a strong assembly.



**Step 3:** *If doing the float plane version then follow these steps. If fitting wheels go to **Step 6**. Centralize the rudder servo and fit the water rudder.*



**Step 4:** *With the rudder servo central tighten the grub screw in the water rudder steering collet.*

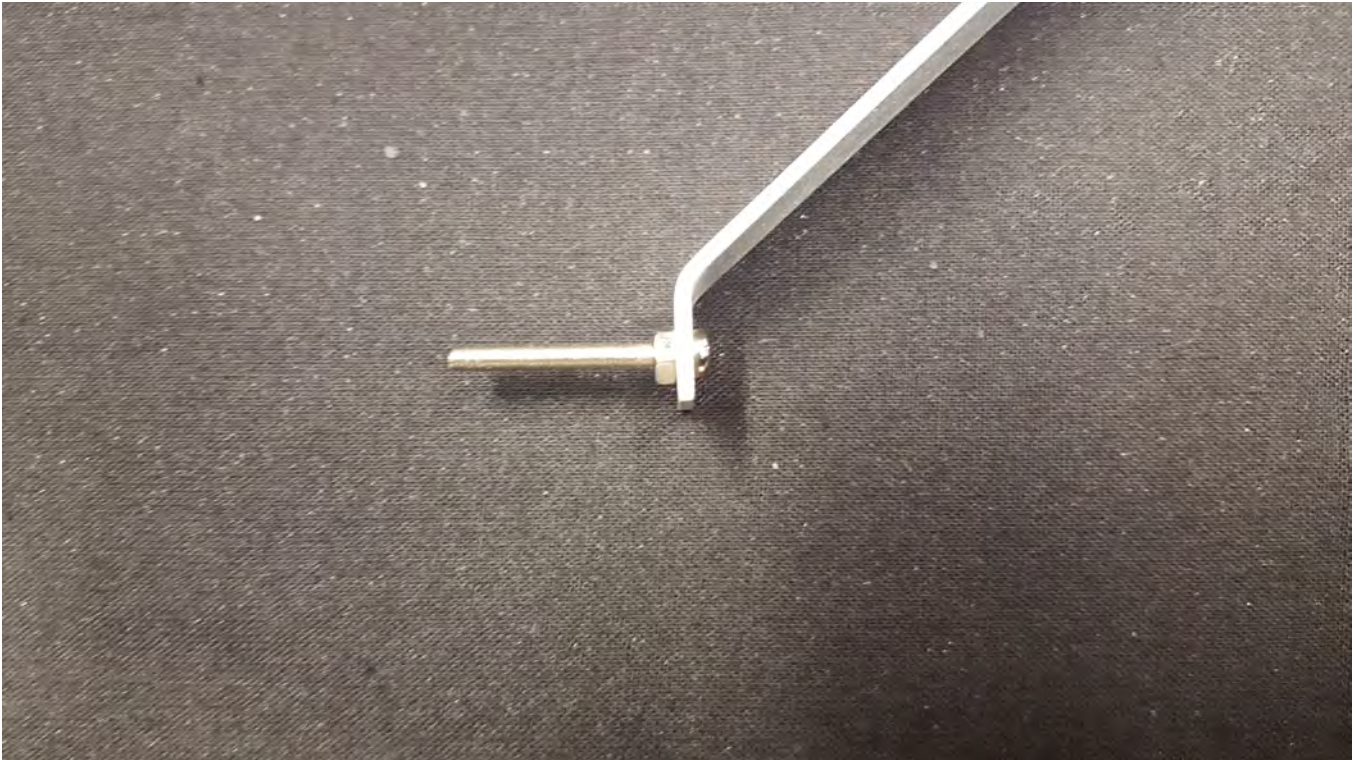


**Step 4:** *Attach the floats with the 4 supplied thumb screws*



**Step 5:** *Finished float assembly.*

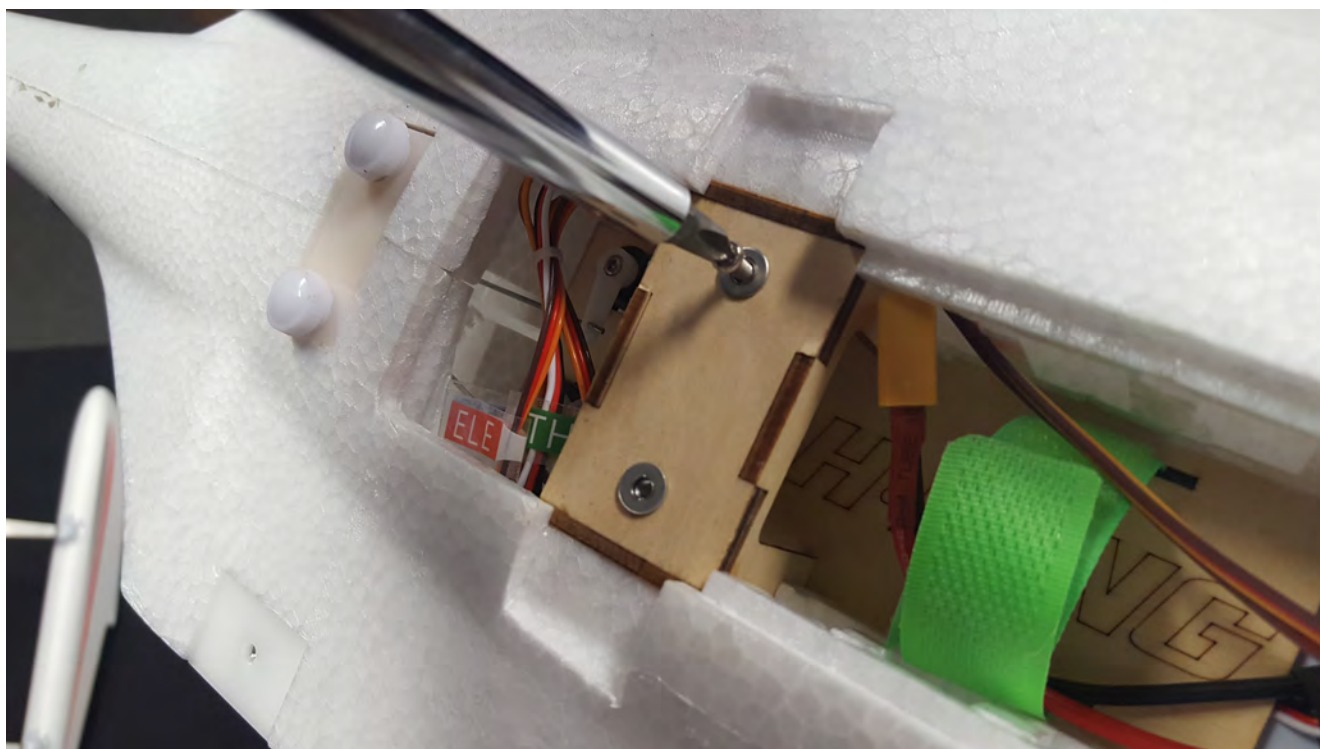




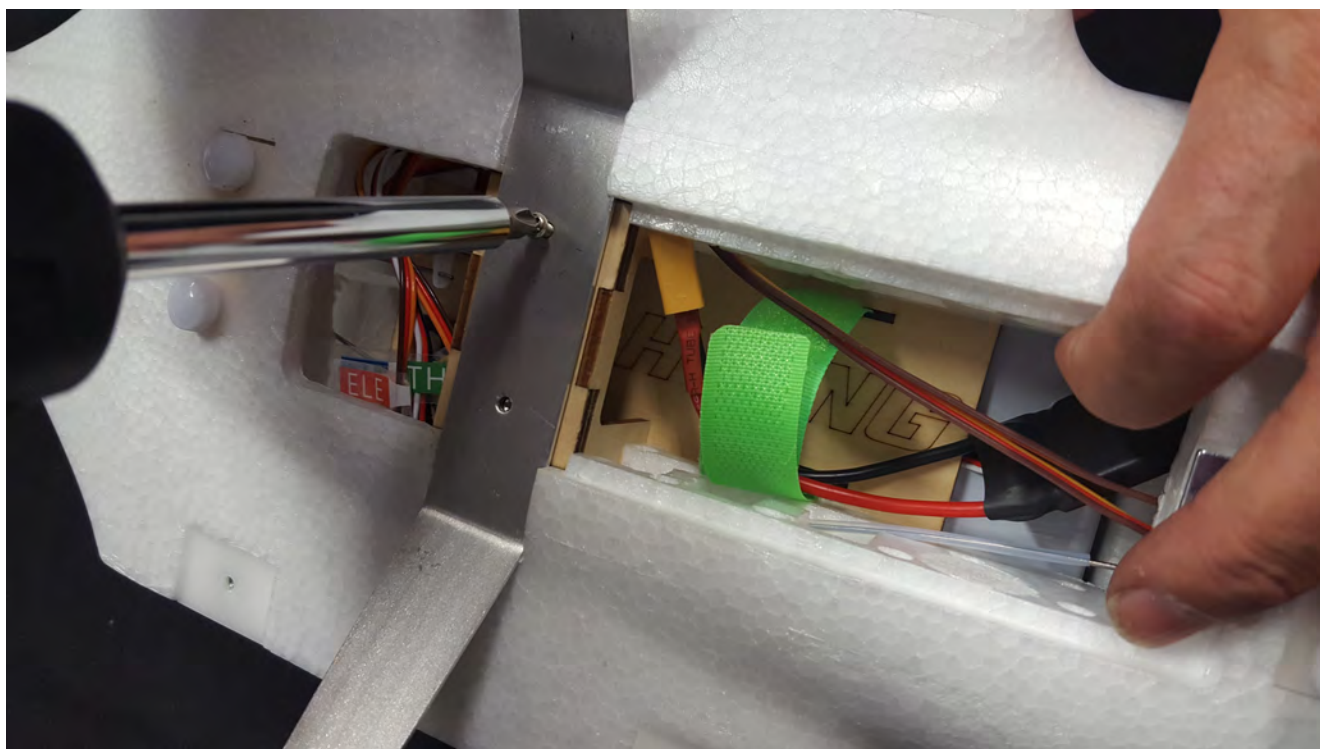
**Step 6:** Put the M3 x 25mm screw through the hole in the bottom of the aluminum U/C and lock into place using a plain M3 nut. Repeat for the other side.



**Step 6:** Slide the wheel over the M3 x 25mm screw and secure the wheel with a M3 locknut. Repeat this process for the other side.



**Step 7:** Remove the battery hatch cover then remove the 2 M3 screws in the plywood undercarriage mount.



**Step 8:** Using the M3 screws fit the aluminum undercarriage to the plywood mount. **Note:** Straight edge of undercarriage faces forward.



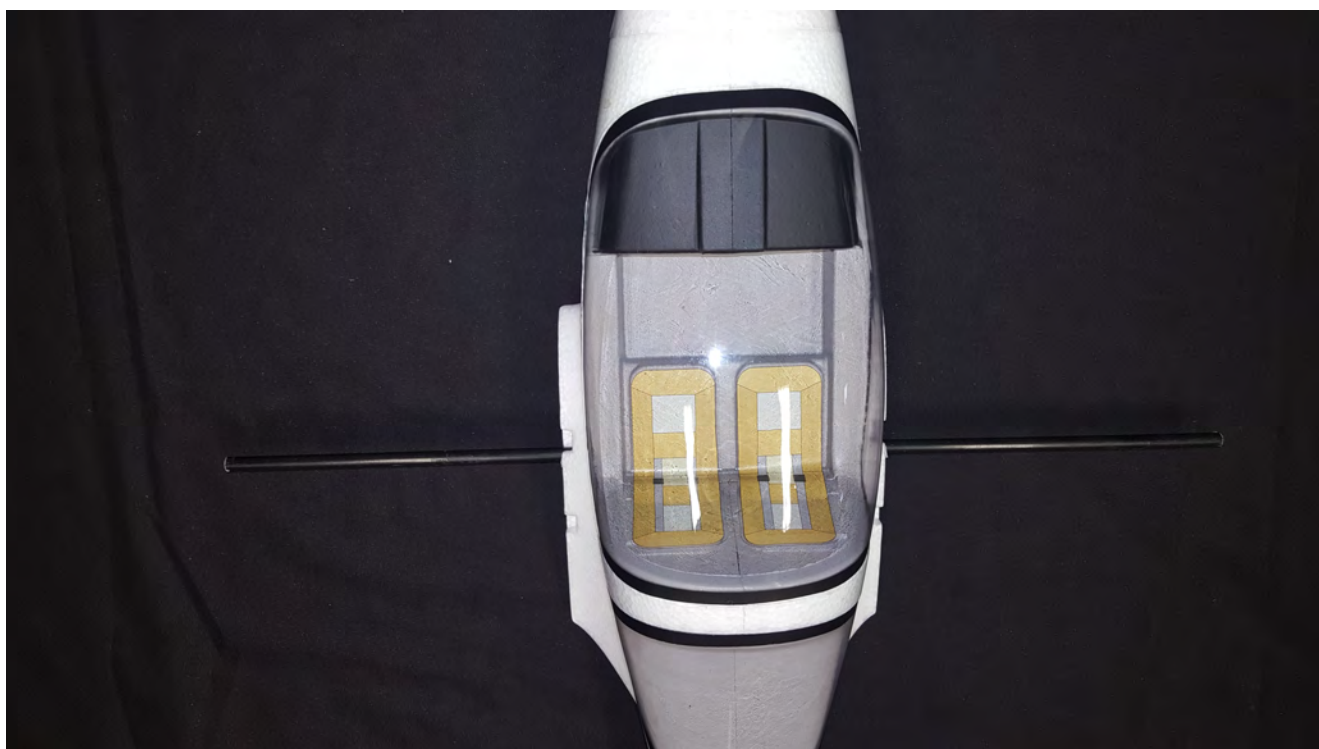
**Step 9:** *Replace the battery hatch.*



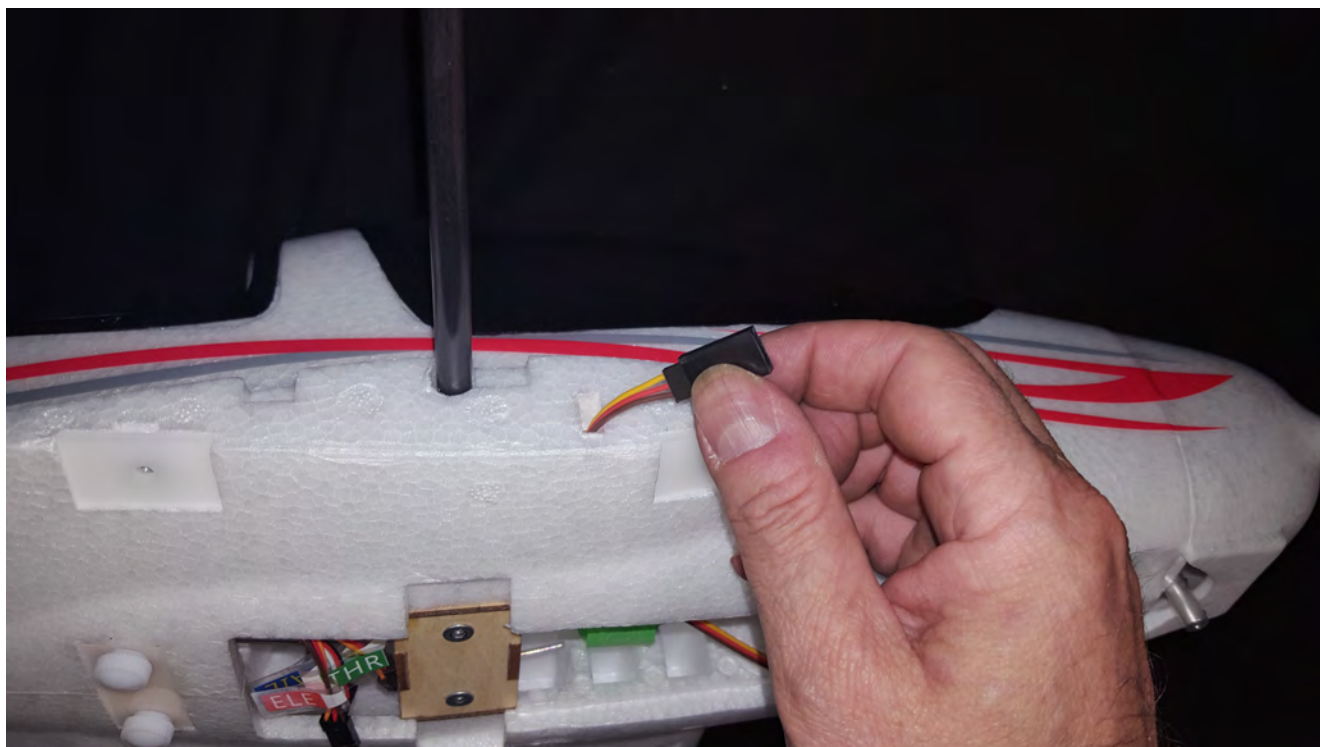
**Step 10:** *Centralize the rudder servo and fit the nosewheel into the steering collet.*



**Step 11:** Lock the nosewheel into place using the grub screw and supplied hex wrench.



**Step 12:** Slide the carbon wing tube through the hole in the fuselage, ensure that it is central.



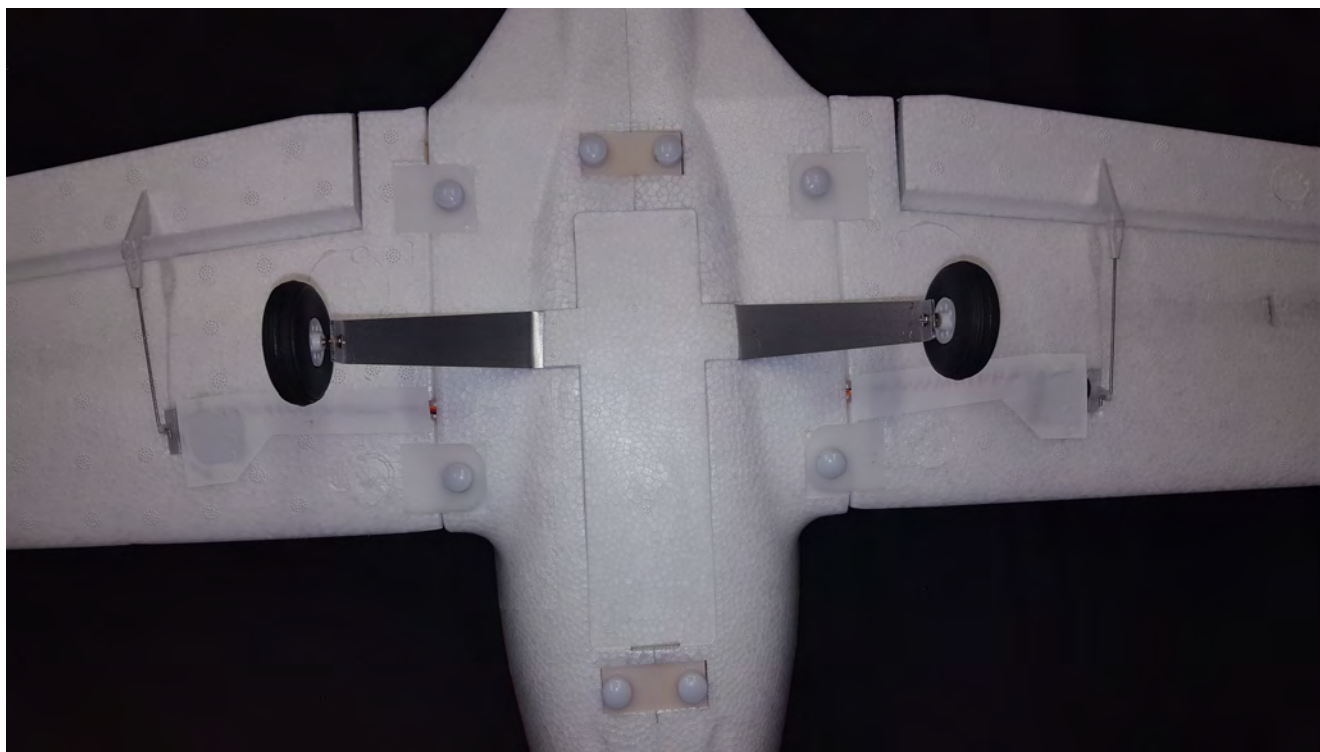
**Step 13:** Feed the aileron servo connectors through the slots in either side of the wing roots.



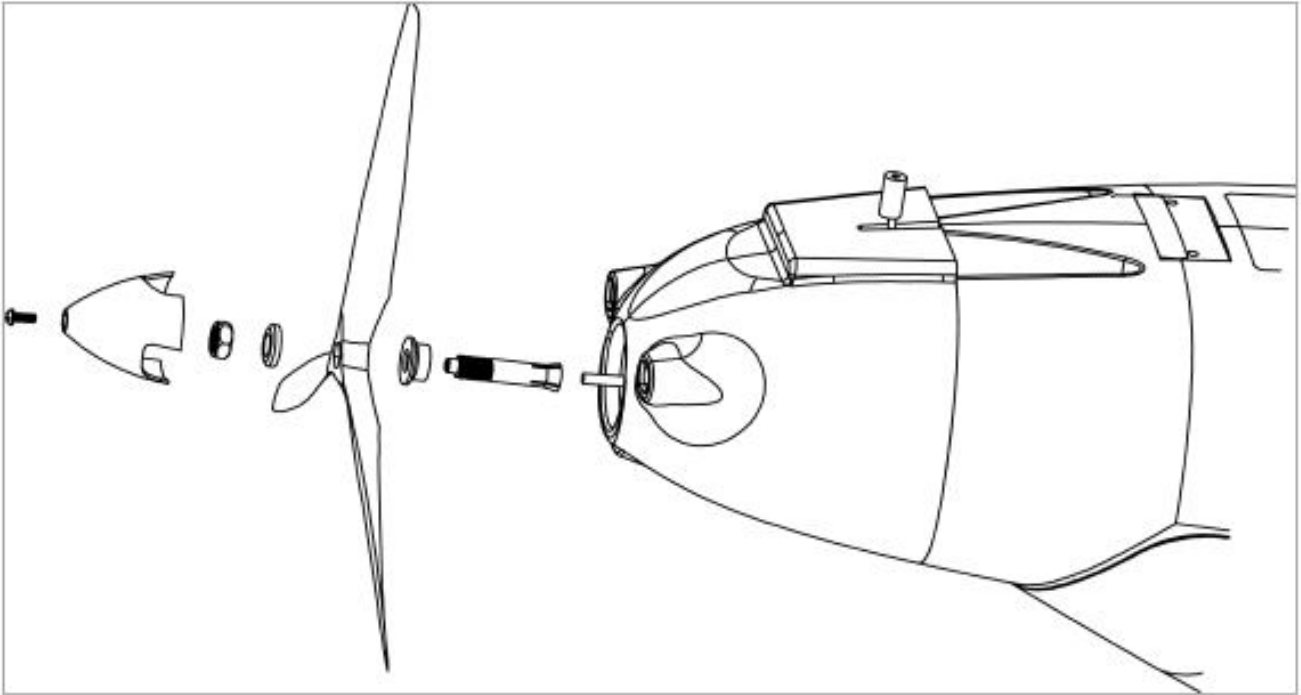
**Step 14:** Slide a wing onto the carbon wing tube, connect the aileron servo lead to aileron connector then push the wing fully home. As you do this carefully feed the connector back into the slot in the wing root. Repeat with the other wing.



**Step 15:** Retain the wings using the supplied 4 thumb screws.



**Step 16:** Finished wing assembly.



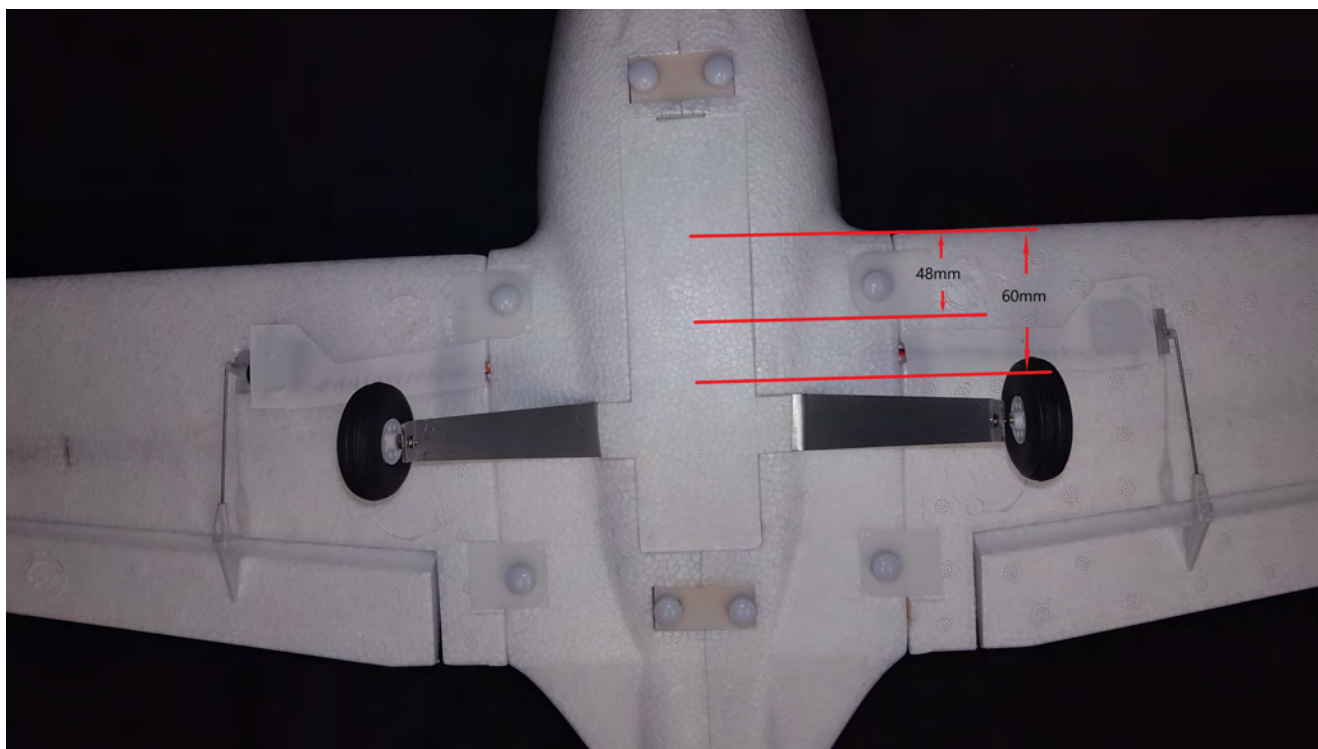
**Step 17:** Fit the propeller and spinner assembly as shown above.



*Wheel version assembly finished.*



*Float version assembly finished.*



**C of G:** This is between 48mm and 60mm measured from the leading edge as shown. For your first flights we recommend aiming to be near the forward mark for improved stability.



## **Suggested Control Throws.**

**Ailerons:** 10~12mm each way (measured at the root).

**Elevator:** 12~15mm each way.

**Rudder:** 30mm each way (measured at the base)..

### **Flying (with wheels).**

We shall not go too much into flying the TL2000 as it is not a model designed for beginners but for the model pilot who has flown low wing type aircraft before.

Before flying first thing is to double check all the controls are moving in the correct direction and the control throws have been set to approximately the suggested movement. Re-check the C of G position and then do a range check of the radio. Please ensure that you have a fully charged battery installed.

Line the model up into wind on your runway with a touch of up elevator and smoothly open the throttle keeping it straight with the steerable nosewheel. The TL2000 has an abundance of power so will lift off very readily and climb away rapidly gaining height. Once at a safe height explore the delightful handling characteristics of your TL2000. It is very smooth and aerobats very nicely, a very pleasing aeroplane to fly that will put a smile on your face.

Landings really are a non event, the plane virtually lands itself. Fly a nice circuit at reduced power and when on finals take most of the power off and glide onto your landing area controlling the airspeed with the elevator. At about shoulder height or a bit less start to very gently raise the nose with a small amount of elevator until you are flying level with the ground at about half a wingspan. Keep very gently pulling back the elevator until the rear wheels kiss the ground and you have landed.

### **Flying (with floats).**

Carry out the pre-flight checks as above.

Place the TL2000 on the water then slowly taxi out into the lake and turn into wind, hold full up elevator whilst taxiing. Hold in about half up elevator and smoothly open the throttle keeping straight using the water rudder, the TL2000 should very quickly get on the step (of the floats) then gracefully lift off. Circuits and landings are the same as above with wheels but do make sure you do a fully held off landing. You should have almost full up elevator in when you touch the water, then keep the elevator fully back.

We hope you enjoy flying your H-KING TL2000 and if you haven't already tried out the others in our range then we recommend you visit our website at [www.hobbyking.com](http://www.hobbyking.com) and take a look at our ever increasing range of quality model aircraft and accessories.

**Have fun.**

## Recommended Batteries.

Turnigy 1300mAh 3S 20C Lipo Pack

SKU: T1300.3S.20



ZIPPY Compact 1300mAh 3S 25C Lipo Pack

SKU: ZC.1300.3S.25



Turnigy 1300mAh 3S 25C Lipo Pack

SKU: T1300.3S.25



Turnigy nano-tech 1300mah 3S 25~50C Lipo Pack

SKU: N1300.3S.25



**Recommended Accessories.**



**Turnigy TGY-i6 AFHDS Transmitter and 6CH Receiver (Mode 2)**

**SKU: 911400020-0**



**OrangeRx TX10i Full Range 2.4GHz DSMX/DSM2 Compatible 10CH Radio System (Mode 2) International Version**

**SKU: 9171001401-0**



**HobbyKing 2.4Ghz 4Ch Tx & Rx V2 (Mode 2)**

**SKU: HK-T4A-M2**



**Turnigy T6A-V2 AFHDS 2.4GHz 6Ch Transmitter w/Receiver V2 (Mode 2)**

**SKU: 9114000074-0**

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