KRILL AIRCRAFT

Mini AreS V2 1.7m Jet FC PNP

for P80 turbine or EDF

ASSEMBLY MANUAL

by Moritz Rudolph

There we go :

The all new **KRILL Aircraft AreS Mini V2 PNP** represents the next evolution of the highly successful AreS Mini platform, combining proven aerobatic performance with an advanced Plug-and-Play system engineered for maximum efficiency, precision, and reliability.
Designed for pilots seeking maximum performance with minimal assembly time, the V2 arrives factory-equipped with numerous pre-installed systems, including new quick-lock-systems, retractable landing gear, fuel bags, internal wiring harnesses, vector pipe, and essential structural accessories. This significantly reduces build time while preserving the premium engineering standards expected from KRILL Aircraft.
With high-end included components such as the turbine, KST servos and complete installation accessories, the AreS Mini V2 drastically simplifies the building process without compromising performance, serviceability, or professional presentation quality.
The result is a high-performance sport and aerobatic turbine jet that offers:

- Exceptional precision
- Simplified assembly
- Advanced system integration
- Outstanding reliability
- Professional-grade flight performance

This manual is intended to provide a structured, real-world assembly reference based on practical builder experience, optimized installation techniques, and maintenance-focused system organization.
Beyond standard kit instructions, this guide supports:

- Professional assembly
- System optimization
- Service-friendly installation
- Safe operation
- Setup validation

The final objective is to help builders achieve a competition-grade turbine jet platform that combines performance, reliability, visual excellence, and the unmistakable engineering quality of **KRILL Aircraft**.

Specifications:

Wing span: ……..1500 mm
Length:…… 1700 mm
Wing area:…….. 42,50 dm2
Radio:….. 7+ channels
Servos:… minimum 8 servos (KST A12-610)
+ 2 servos for the vector (if installed)

Required radio system:

- Minimum 7-channel radio system (better 9ch)
  -> In this Manual we used a Radiomaster TX16s with 2x ER8 Receiver's

- 8 + 2 mini servos for elevators, ailerons, flaps, rudder, steering + vector

Warning

This RC aircraft is not a toy!
If misused, it can cause serius bodily harm and damage to property. Fly only in open areas, preferably in official flying sites, following all instructions included with your radio and motor.

Before starting assembly

Before starting the assembly, remove each part from its bag and protection for a prior inspection. Closely inspect the fuselage, wing panels, rudder, and stabilizer for damage. If you find any damage or missing parts, contact the place of purchase.

Warranty information

KRILL MODEL guarantees this kit to be free from defects in both material and workmanship at the date of purchase.
This warranty does not cover any parts damage by use or modification, and in no case shall KRILL MODEL's liability exceed the original cost of the purchased kit.
Further, KRILL MODEL reserve the right to change or modify this warranty without notice. In that KRILL MODEL have no control over the final assembly or materials used for the final assembly, no liability shall be assumed or accepted for any damage of the final user-assembled product. By the act of using the product, the user accepts all resulting liability.
If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.

RADIO SET UP

For a more realistic jet fying, more stable and easy in the wind, we recommend to install the 3 axis gyro system stabilizer as **Bavarian Demon Cortex**, **Spectrum Synapse**, **I-GIRO Power Box** or the **Mercury SRS Power Box** that include the gyro feature and offer more safety.

Flaps (standard flight):

We recommend to use flaps down for starts and landings to make them shorter and easier.

- ✧ Activate the FLAP function in your radio.
- ✧ For take off use approx. 20° flaps down and mix 5% elevator down
- ✧ For landing use approx. 40° full flap down and mix 8% elevator down

Flaps (3D flight):

We recommend to use flaps with 2 independent channels and mix them with ailerons only in the 3D flight mode.

Control throws:

- **For the AILERON** we recommend the following throws:
  Use approx. 10% aileron differential (more up) for normal flight.

High rate:	30° left & right	
Normal flight:	D/R: 50%	Expo: 10%
3D:	D/R: 100%	Expo: 30%
Start & landing:	D/R: 60%	Expo: 20%

- **For the ELEVATOR** we recommend the following throws:

High rate:	30° up & down	
Normal flight:	D/R: 60%	Expo: 40%
3D:	D/R: 100%	Expo: 60%
Start & landing:	D/R: 100%	Expo: 80%

- **For the RUDDER** we recommend the following throws:

High rate:	30° left & right	
Normal flight:	D/R: 80%	Expo: 20%

3D:	D/R: 100%	Expo: 40%
Start & landing:	D/R: 100%	Expo: 40%

Note: the Expo is (+) for JR systems, and (–) for Futaba systems.

Mixing:

We recommend the following mix (if you have a programmable computer radio):

- ***Rudder →Elevator DOWN***

full rudder to the right, the elevator have to go up (positive) approx. 2%
full rudder to the left, the elevator have to go up (positive) approx. 2%

- ***Rudder →Ailerons***

full rudder to the right, the ailerons have to go left approx. 3%
full rudder to the left, the ailerons have to go right approx. 3%

Recommended Center of Gravity

The recommended CG is **190mm** behind the front leading edge of wing on fuselage. (Around the Carbon-Tube)

Pre-flight

Never attempt to make full throttle dives! This model have to be flown like a full-scale airplane. If the airframe goes too fast, such as in a high throttle dive, it may fail. Throttle management is absolutely necessary.

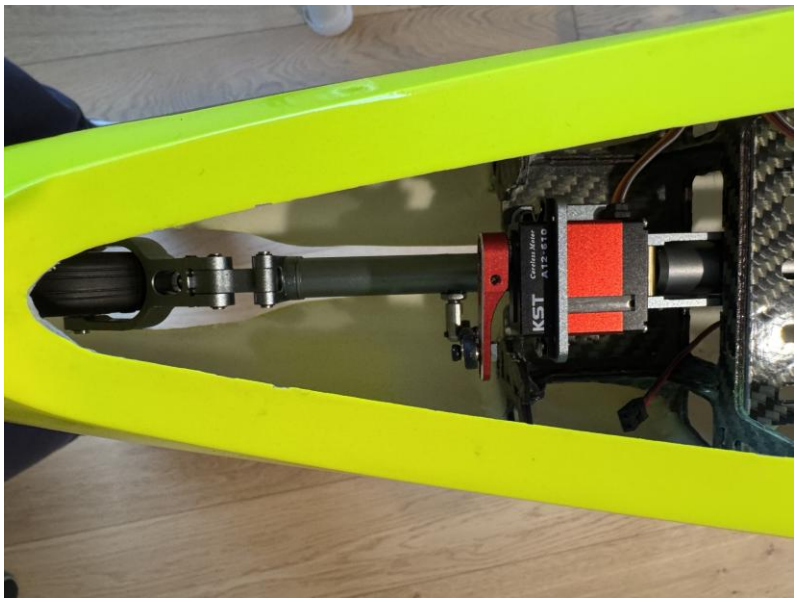
Range test your radio

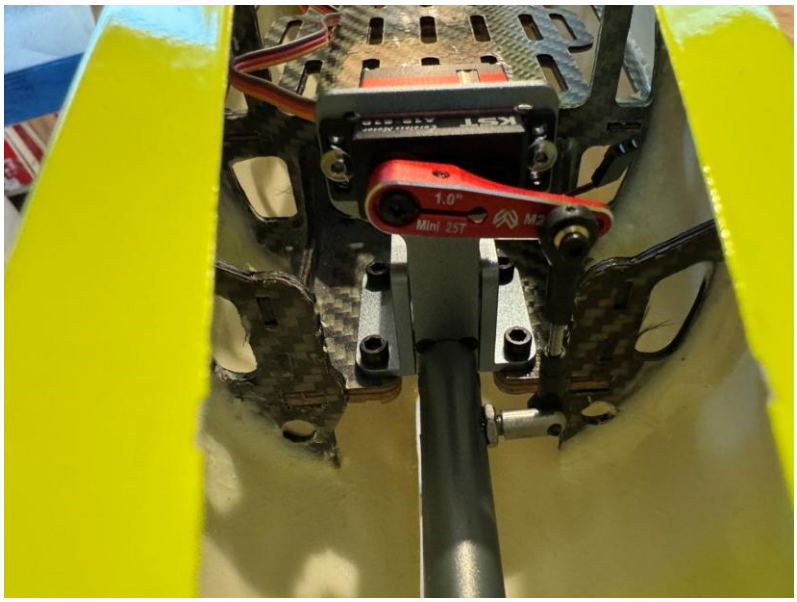
- ✓ Before fly, be sure to range check your radio as manufacturer's instruction manual of you radio-system recommend.
- ✓ Double-check all controls (aileron, flaps, elevator, rudder and throttle) move in the correct direction.
- ✓ Be sure that your motor battery pack is fully charged, as per the instructions included with your batteries and that your radio is fully charged as per its instructions.

Finally... have nice flights! :)

BUILDING IN PICTURES:

In the Box…

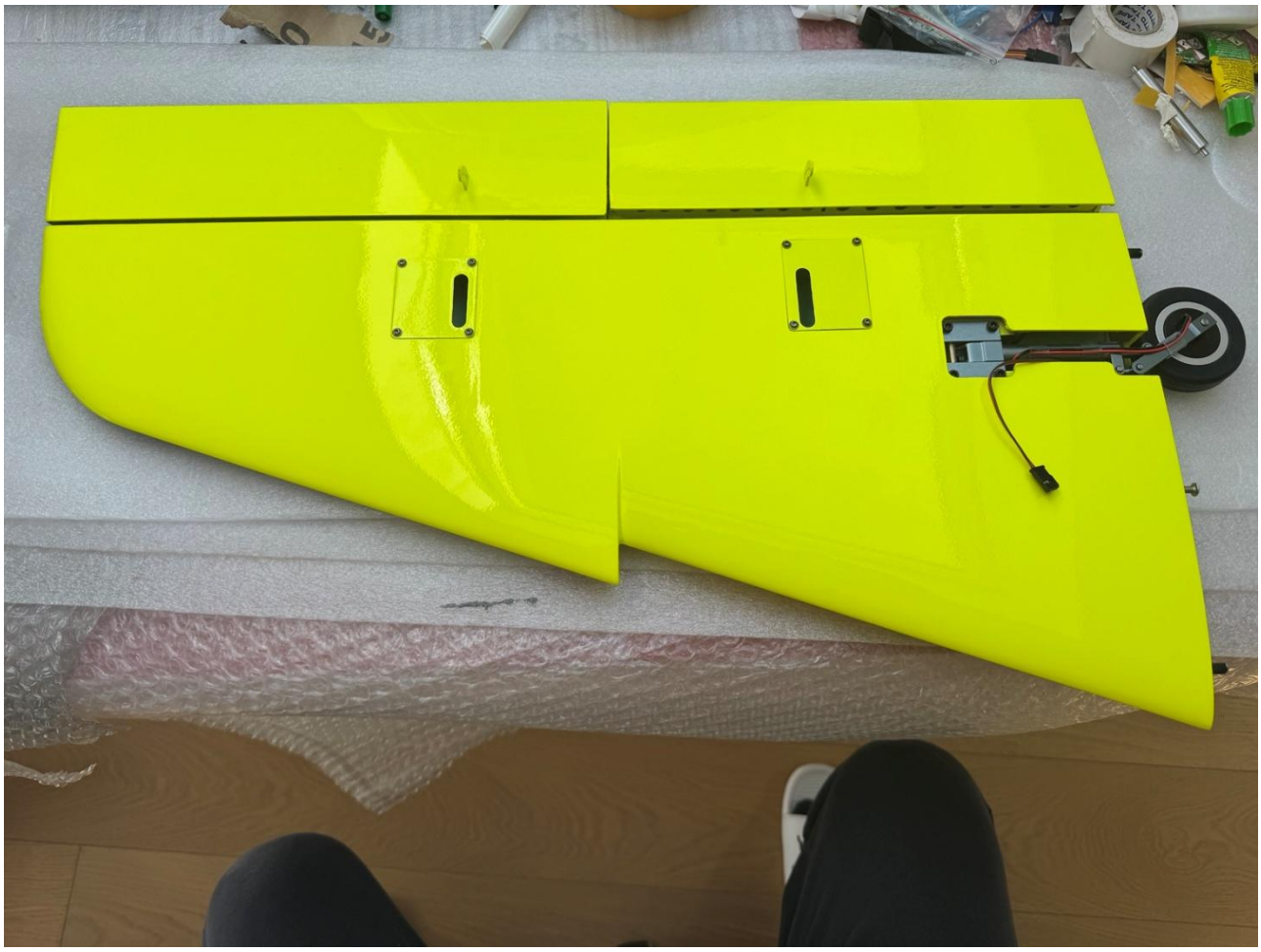




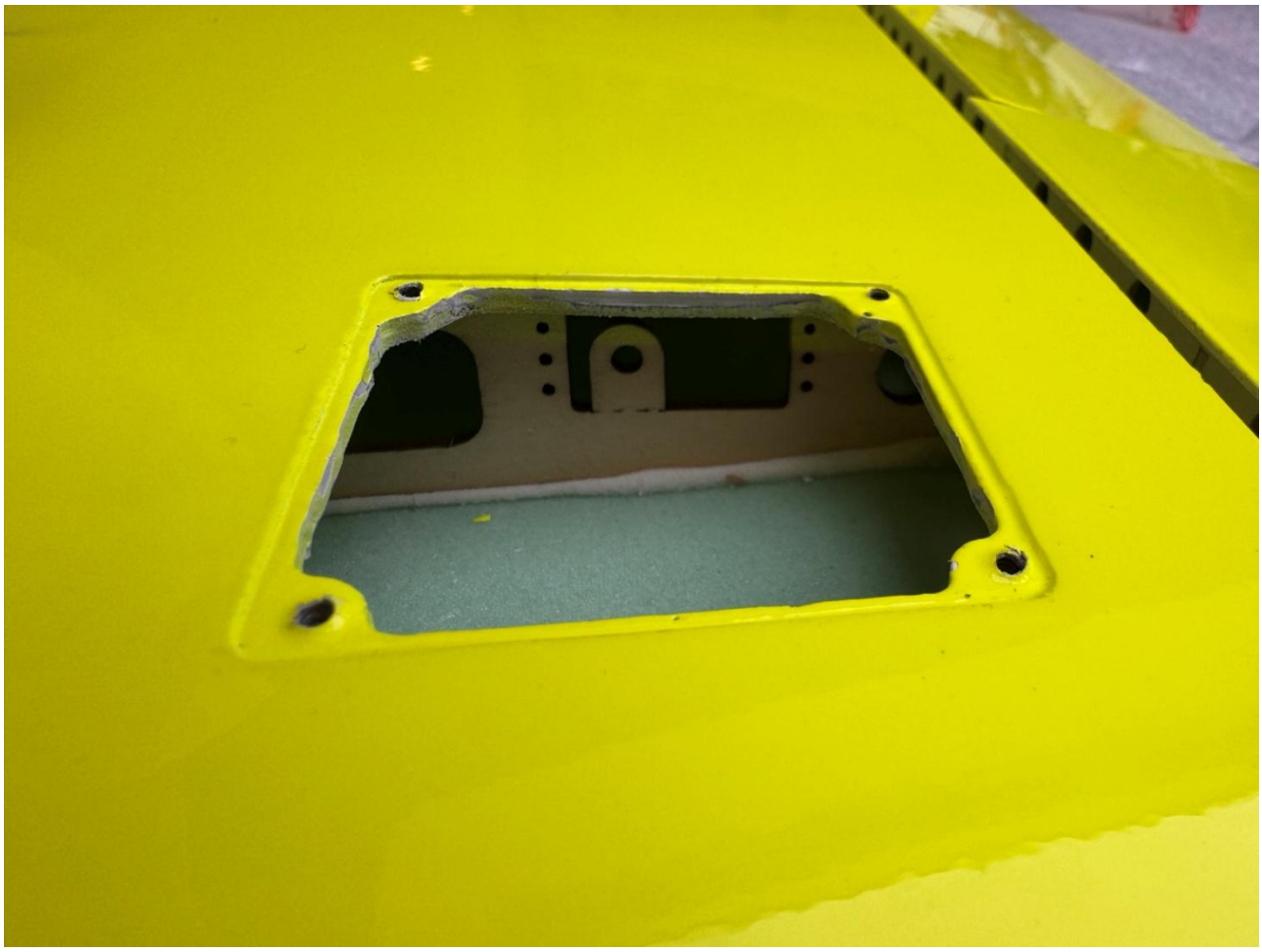
Front Gear (Nose)

To install the nose landing gear, the CFK-brace between the two formers must first be removed. This allows the landing gear to be inserted and subsequently screwed into place.

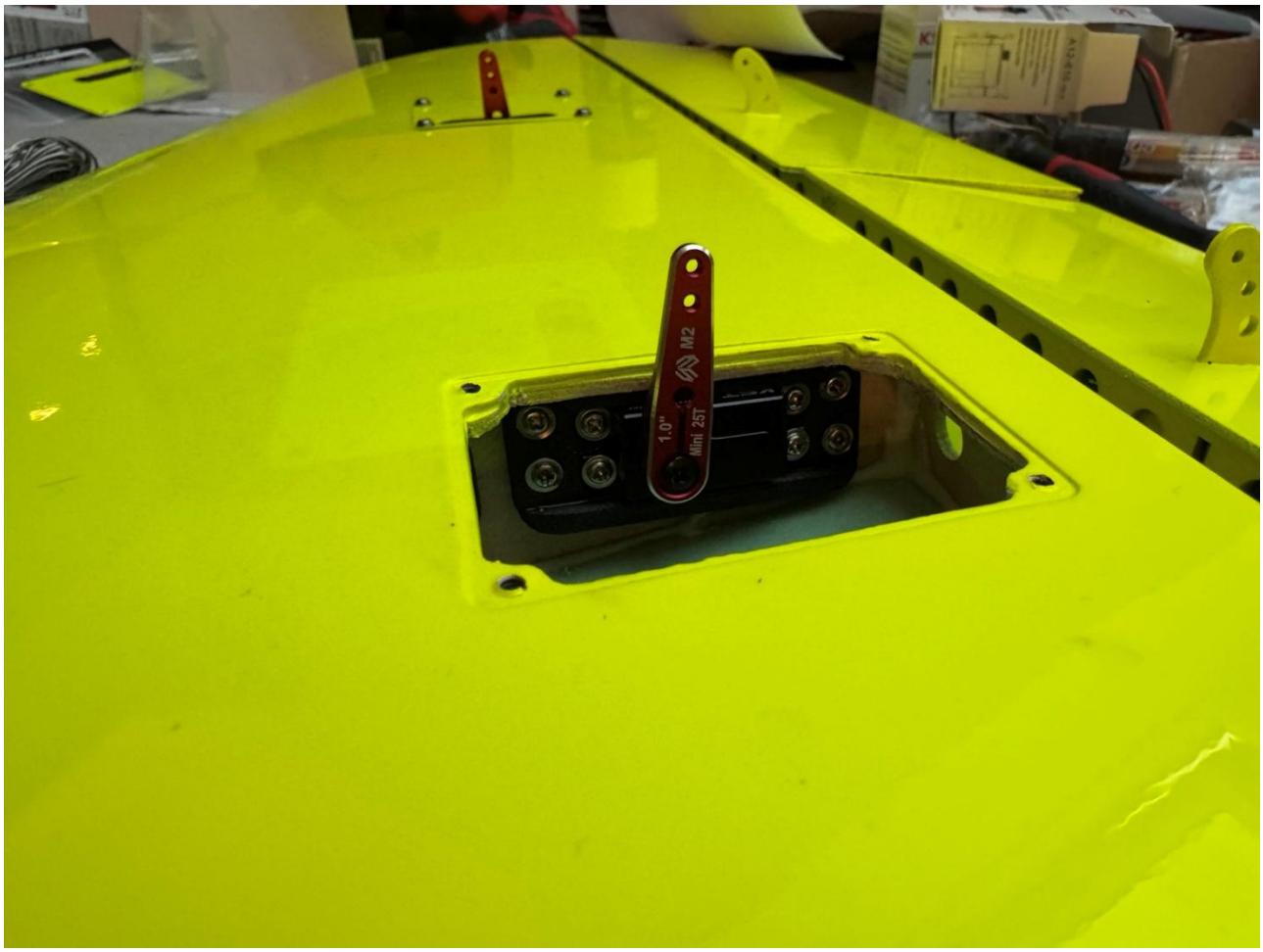
In the picture, you can see the ready mounted gear with servo. The CFK-brace has already been removed and the landing gear has already been installed and secured with screws.



Wings

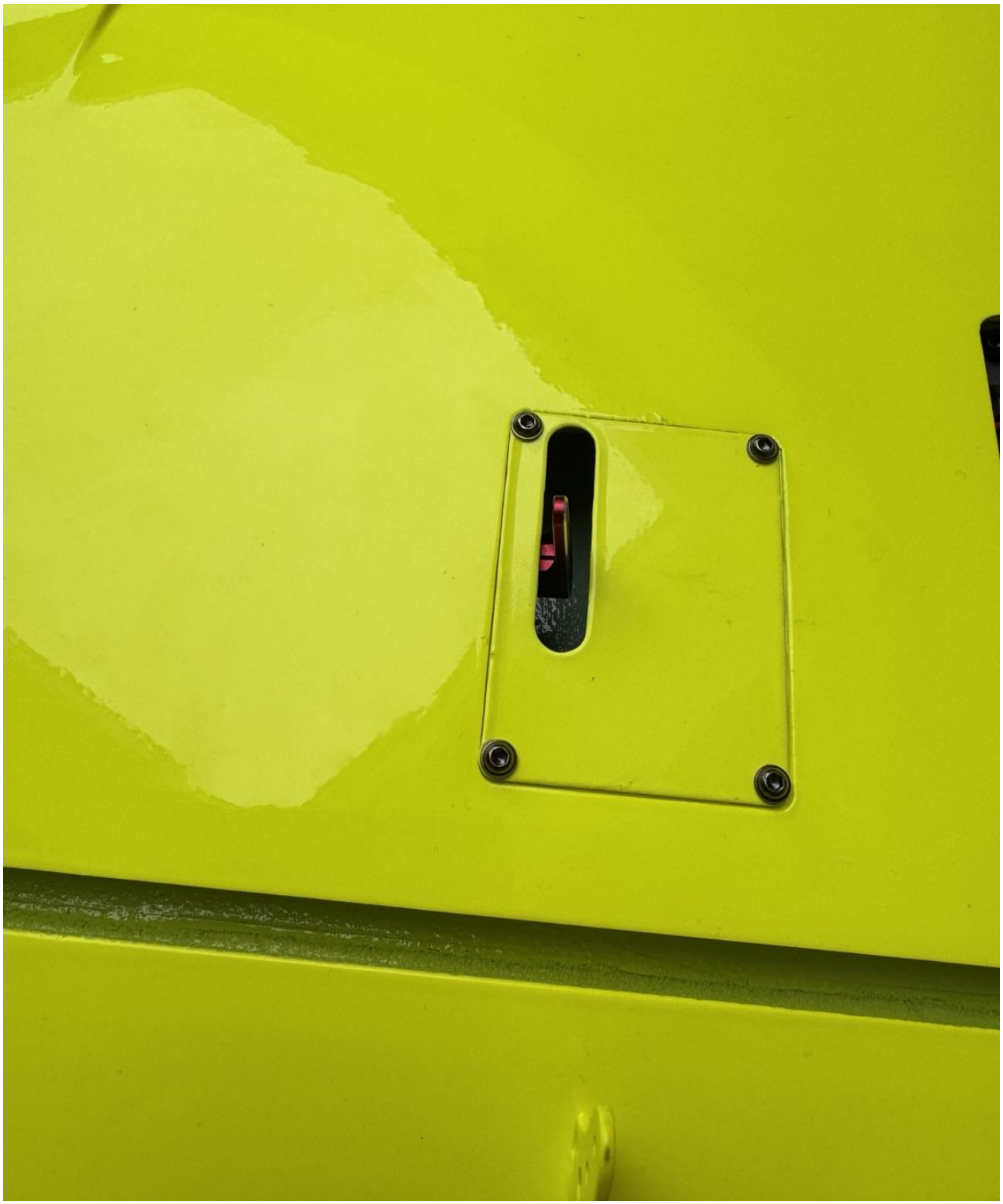


Open all the servo-doors.

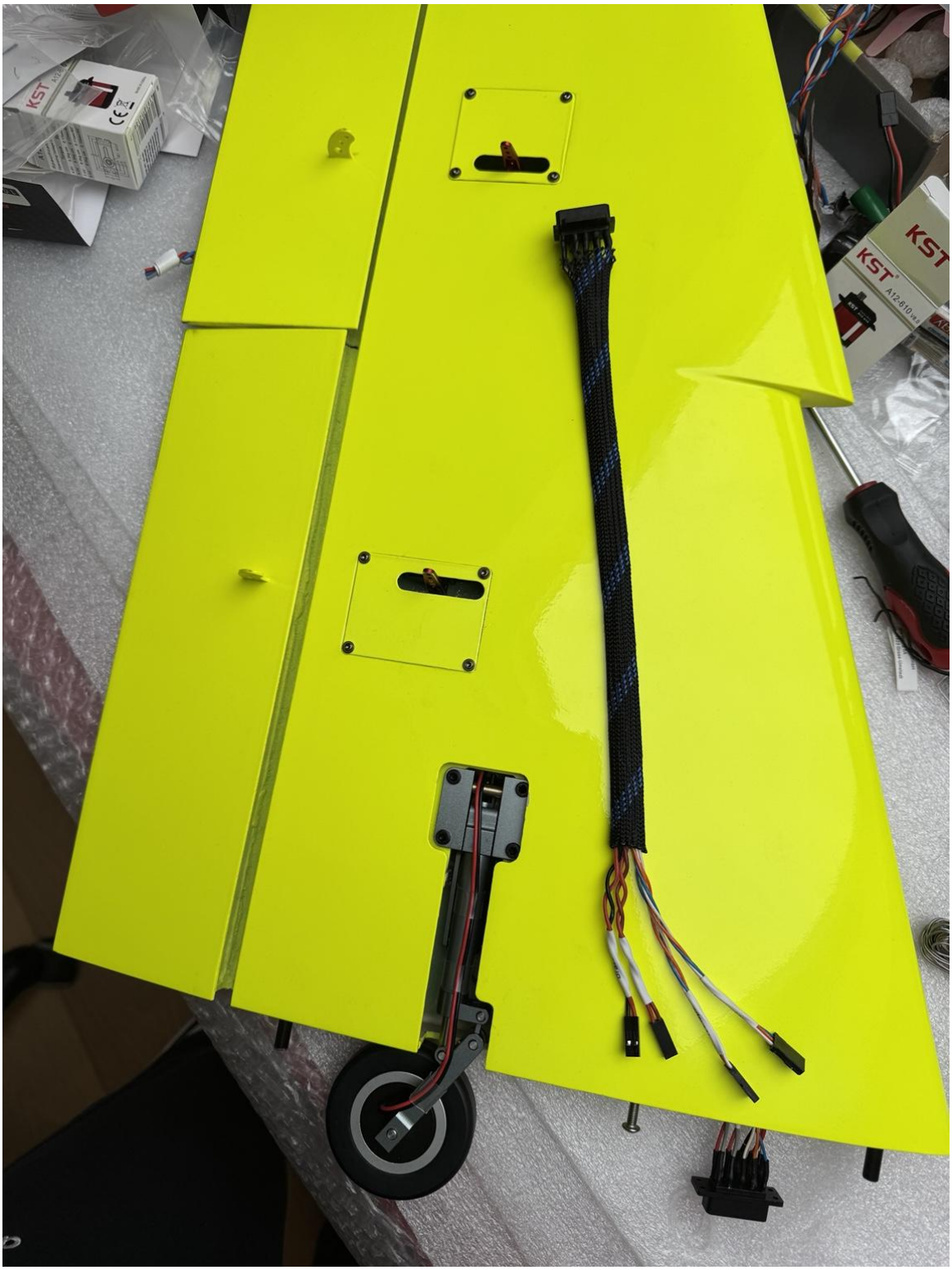


2x Servos (A12-610) → each wing
1x Adapter plate → each wing

Use the adapter plate between the flap-servo and the frame, to generate a perfect fitting.



Now close the Servo-doors.

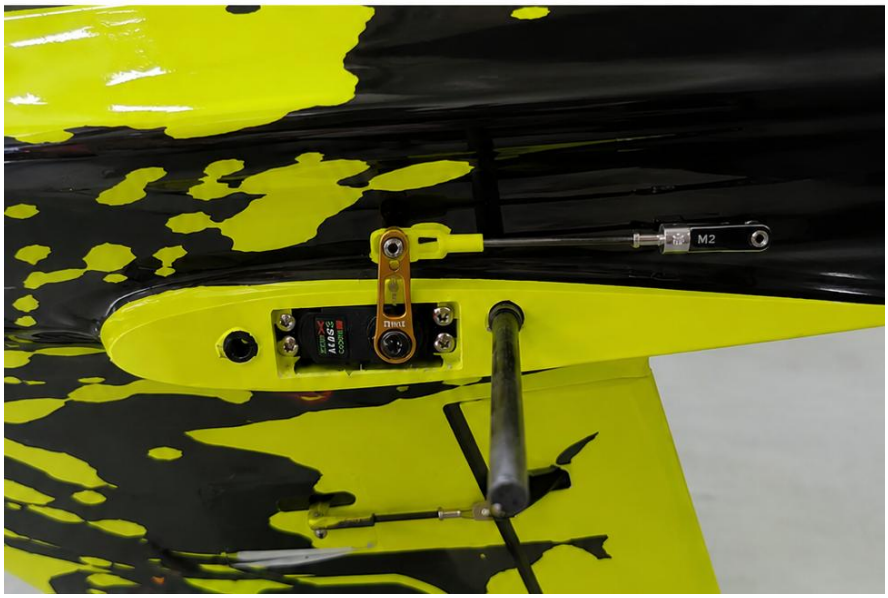


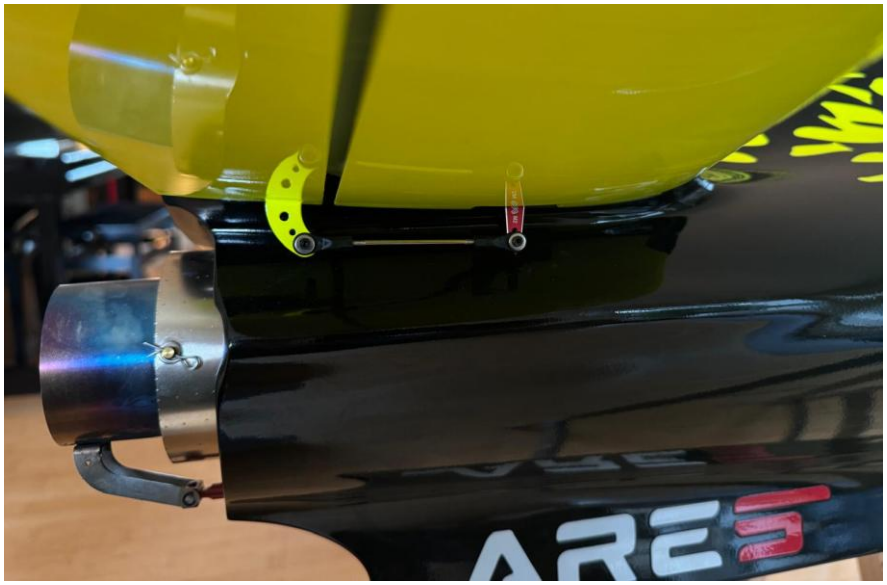
Prepare all the cables for the wings. (in the photo we used a cable-protection for more safety)
After that, connect the cables inside the wings.

Elevators

Elevators:
2x Servos (A12-610) → 1x each side

Install the Elevator-servo’s in the fuselage and connect the elevator’s to the fuselage:


M2


ARES

While connecting, the elevators will automatically lock in the Lock System. (no screws needed)

➔To disconnect the elevators, use the enclosed wedge.

Rudder

Rudder:
1x Servo (KST A12-610)

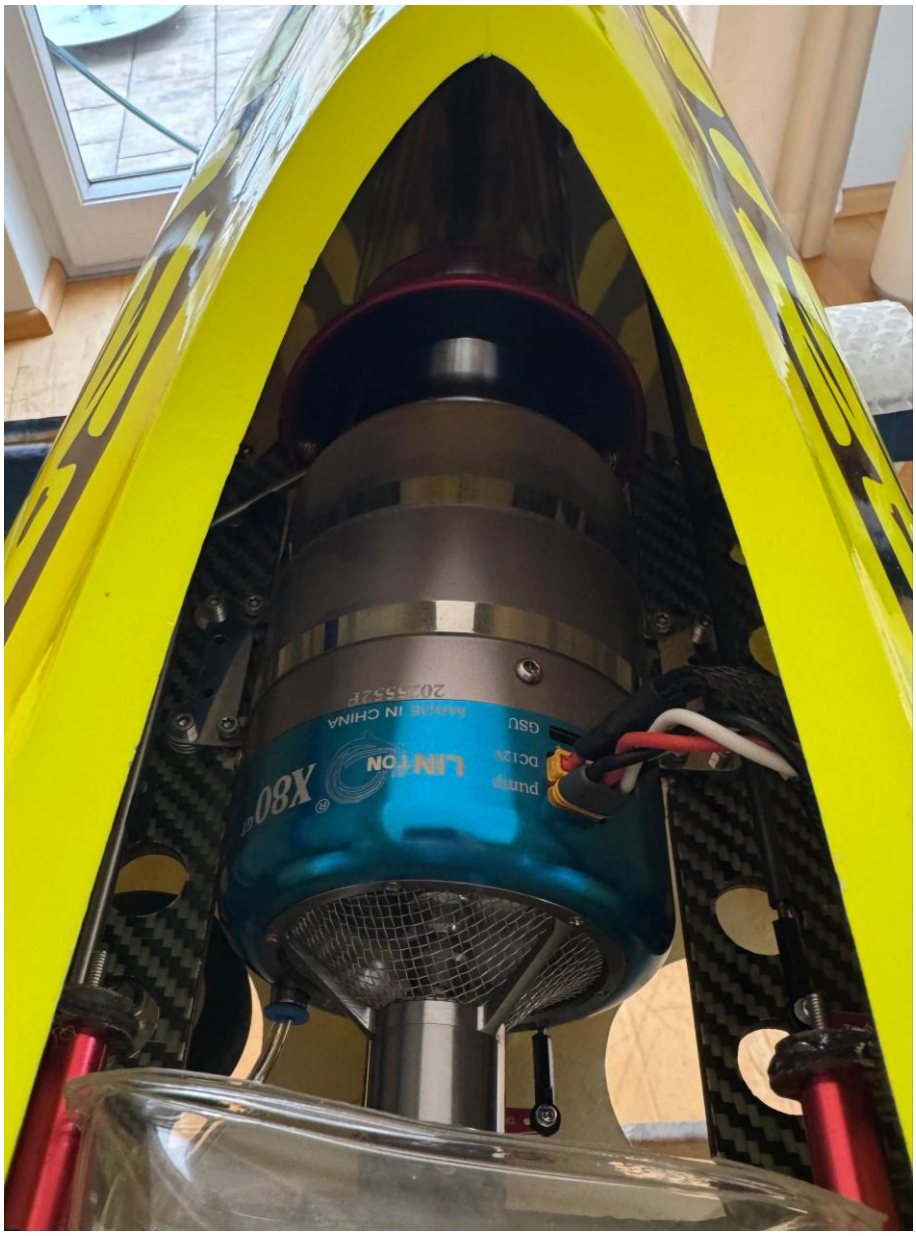
Install the Rudder-Servo (KST A12-610) in the tail and connect it with the rudder.

Connect the wings to the fuselage. The wings will inserted in the integrated Lock System (orange).

To lock the Wings, push the right button.
To unlock the Wings, push the left button.
(its reversed on the other wing)

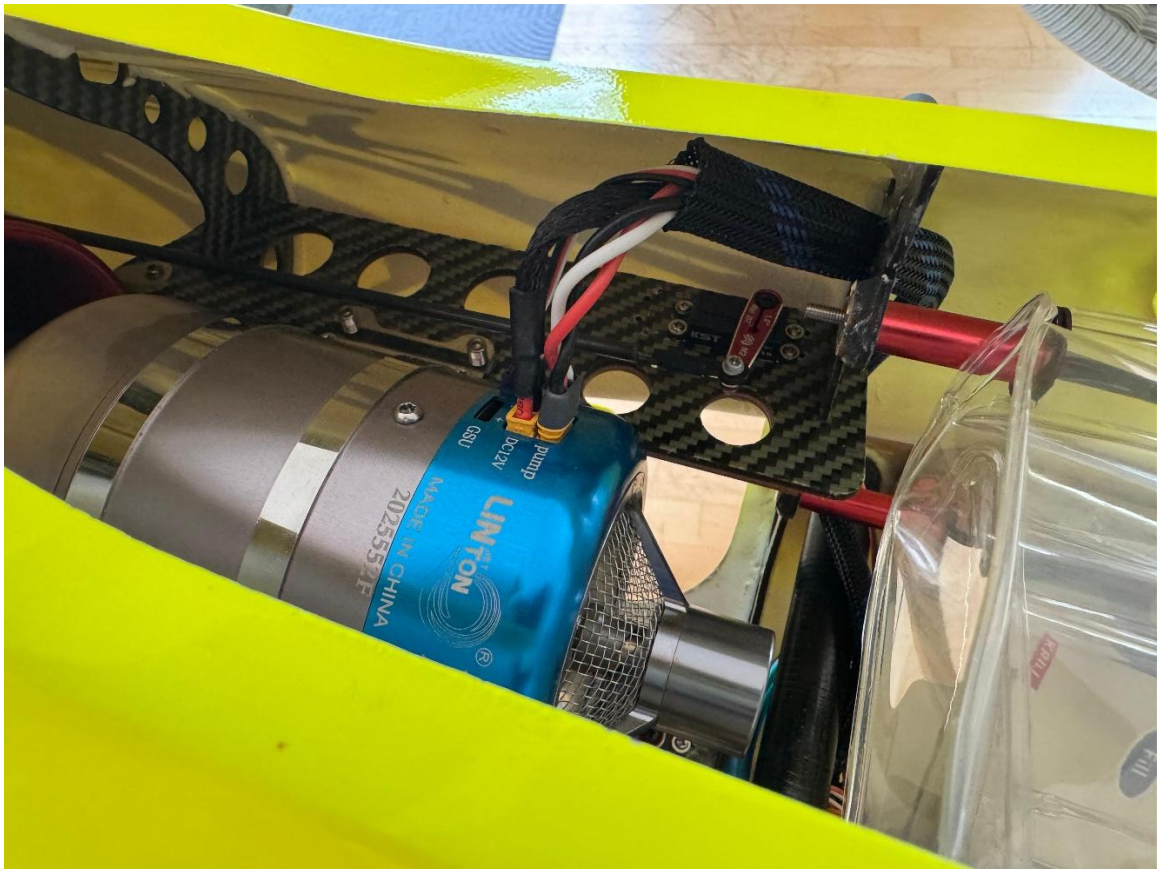
Wing connected

<u>Turbine & Vector installation:</u>



Install the turbine in the fuselage and make shure, that the turbine points directly and perfectly centered into the thrust tube. You may need washers in this process.

When the turbine doesn’t fit through the canopy opening, than you have to remove the two fuel / smoke-oil bag’s and bring the turbine from the front into the fuselage (because the canopy opening is bigger in the front).


GSO
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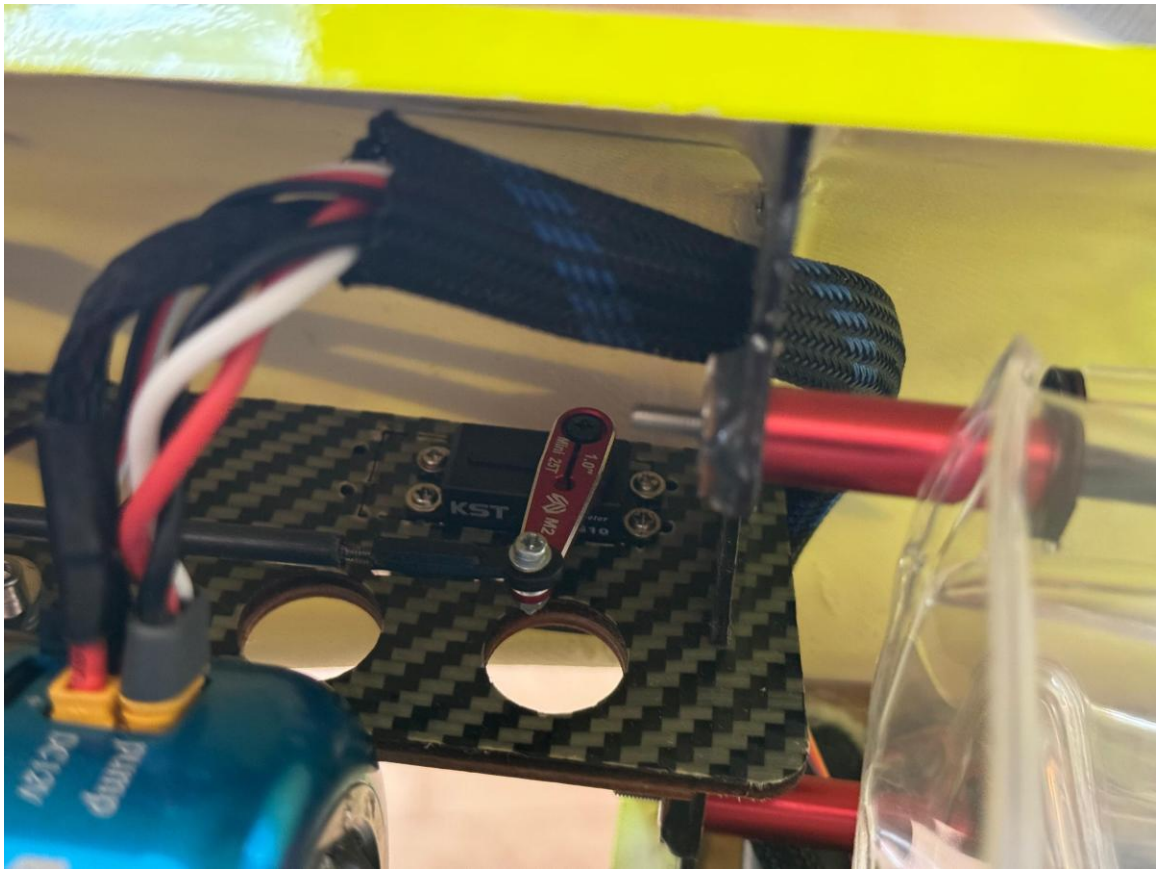
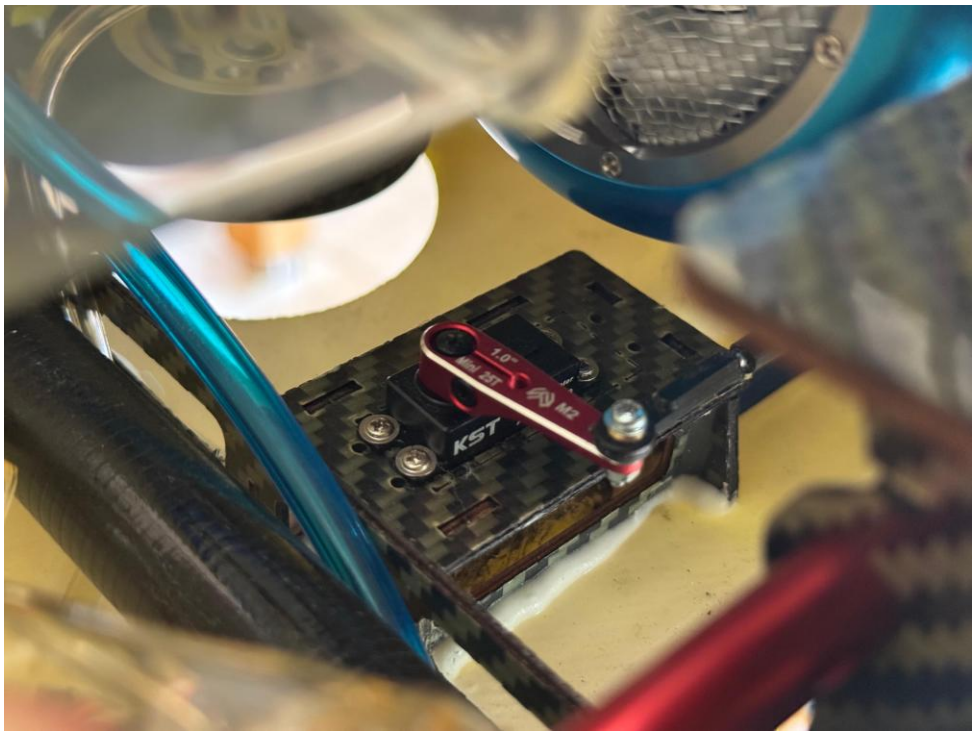
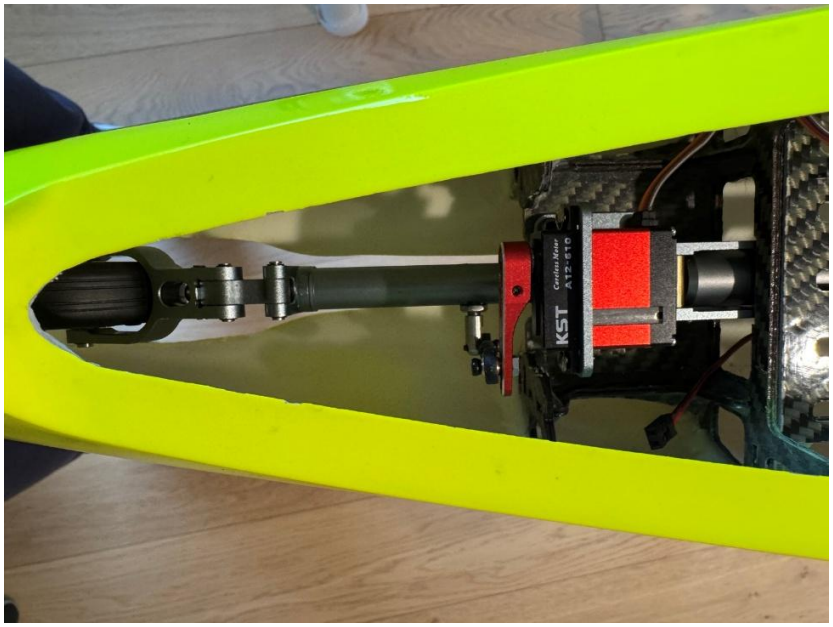

KST
PUMP
DC12V



Vector:
2x Servo (KST A12-610):
Install the vector-servos under and next to the Turbine.

Vector-Nozzle:

Front Gear



Front Gear:
1x Servo (KST A12-610)

Place the Servo in the preassembled front suspension.

Place your setup on the white board which you can slide into the fuselage.

Tipp: Place all fuel / smoke pumps in the lower section of the fuselage and all receivers, gyros, gear-controller or any other devices that should not come into contact with fuel or smoke-oil in the upper section.

Battery placement in the Nose.

2x 2S 2200mAh SLS → Receiverbattery (RX)
1x 3S 2400mAh Hacker → Turbinebattery

In case you have some questions, don’t be shy and write us a Mail.

→ sales@krill-model.com

Now you are ready for your maiden flight…

We as the **Krill Aircraft Team** wish you many nice flights and experiences with this beautiful Rocket !

SEND IT !!!