



Instruction Manual

KINETIX

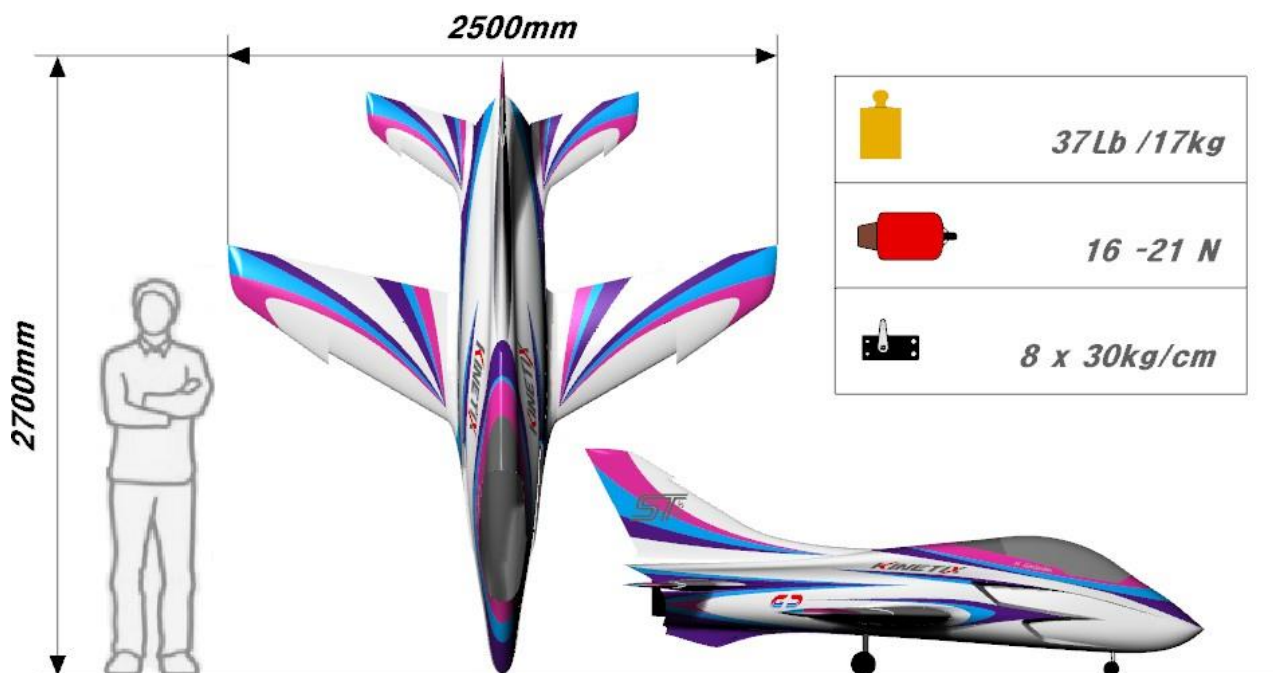


KINETIX

Thank you for selecting the KINETIX as your new project. From ST Jets we are very proud about it, and we want you to have the best experience during the assembly process, maiden flight, and tuning of this latest generation sport jet. The KINETIX has been designed in collaboration with Mariano Gostian; multi time Argentinian F3A champion and designer of other successful RC jets like the ANDEX. For the design of the KINETIX we utilized the most advance design software combined with the most modern building techniques in carbon/composite construction. The result is an amazing modern sport jet.

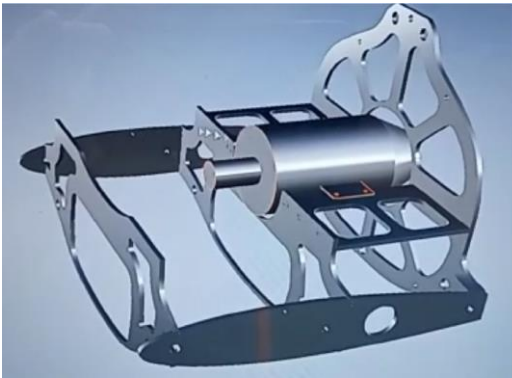
With very solid, precise, and docile flight characteristics the KINETIX has no bad habits and can be enjoyed as an introductory jet while at the same time providing maximum performance for the most experienced pilots. The KINETIX low speed characteristics provide very precise control in the pattern and spot landings. Low and slow passes with full flaps are confidence inspiring. Increasing the power and you will unlock the potential to perform the highest performance acrobatics.

Technical Datasheet:



KINETIX

The KINETIX is built with composite material. High stressed ribs and internal structure are of carbon fiber laminated Airex providing a robust, rigid, and light weight aircraft.





The **KINETIX** is painted out of the mold with a 2K system technique and can be finished in mate or gloss finish.

Most of the build has been done at the factory allowing the owner to get the **KINETIX** ready to fly quickly. You will need only to install the turbine and fuel system, retracts and electronics, the rest we take care already.

Included with the model:

- Internal structure installed.
- Two-piece fuselage for easy installation.
- Pre-installed nose wheel doors.
- Control horns installed in all surfaces.
- Carbon Fiber Wing, stab, and vertical fin tubes.
- Center hinged rudder for high effective results.
- Thrust tube (Pipe)with double side wall.
- Wing, stab, and vertical fin covers.
- Hardware (screws, ball links, push rod, etc.).
- Canopy locking system.
- Clear Canopy.

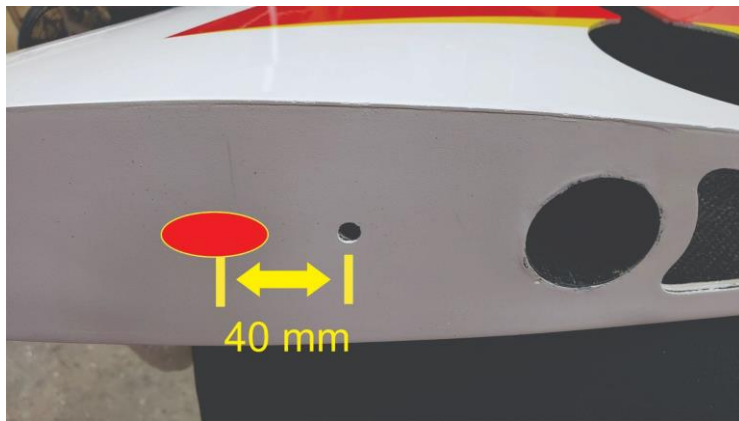


Elements not included:

- 5,5 L. FUEL TANK (OPTIONAL)
- AIR TRAP (UAT)
- ELECTRONIC RETRAC SYSTEM (RECOMMENDED ER-40 ELECTRONICS) (OPTIONAL)
- TURBINE ENGINE 160-210 NEWTONS
- COCKPIT (OPTIONAL)
- 1/3 SCALE PILOT (OPTIONAL)
- 2X 38mm (1.5") SERVO ARMS (ELEVATORS)
- 1X 25mm (1") SERVO ARM (RUDDER)
- 2X 25mm (1") SERVO ARM (AILERONS)
- 2X 20mm (3/4") SERVO ARM (FLAPS)
- 1X 20mm (3/4") SERVO ARM (STEERING)
- 3X EXTENSIONS 750mm (29.5") (ELEVATORS / RUDDER FUSELAGE FRONT)
- 3X EXTENSIONS 850mm (33.5") (ELEVATORS / RUDDER FUSELAGE REAR)
- 2X EXTENSIONS 650mm (25.5) (FUSELAGE FLAPS)
- 2X EXTENSIONS 650mm (25.5) (FUSELAGE AILERONS)
- 4X EXTENSIONS (2 POLES) 650mm (25.5") (RETRACTS & BRAKES)
- 2X EXTENSIONS 650mm (25.5") (STEERING SERVO & FRONT DOOR)
- 1X EXTENSION 500mm (19.75") (FRONT DOOR/SPEED BRAKE SERVO)
- 4X EXTENSIONS 400mm (15.75") (AILERONS & FLAPS WING)
- 8X SERVOS 30 KG. STANDARD SIZE SERVOS
- 2X SERVOS 13 KG. (15 x 17mm width) MINI SERVO (DOORS)



WING INSTALLATION



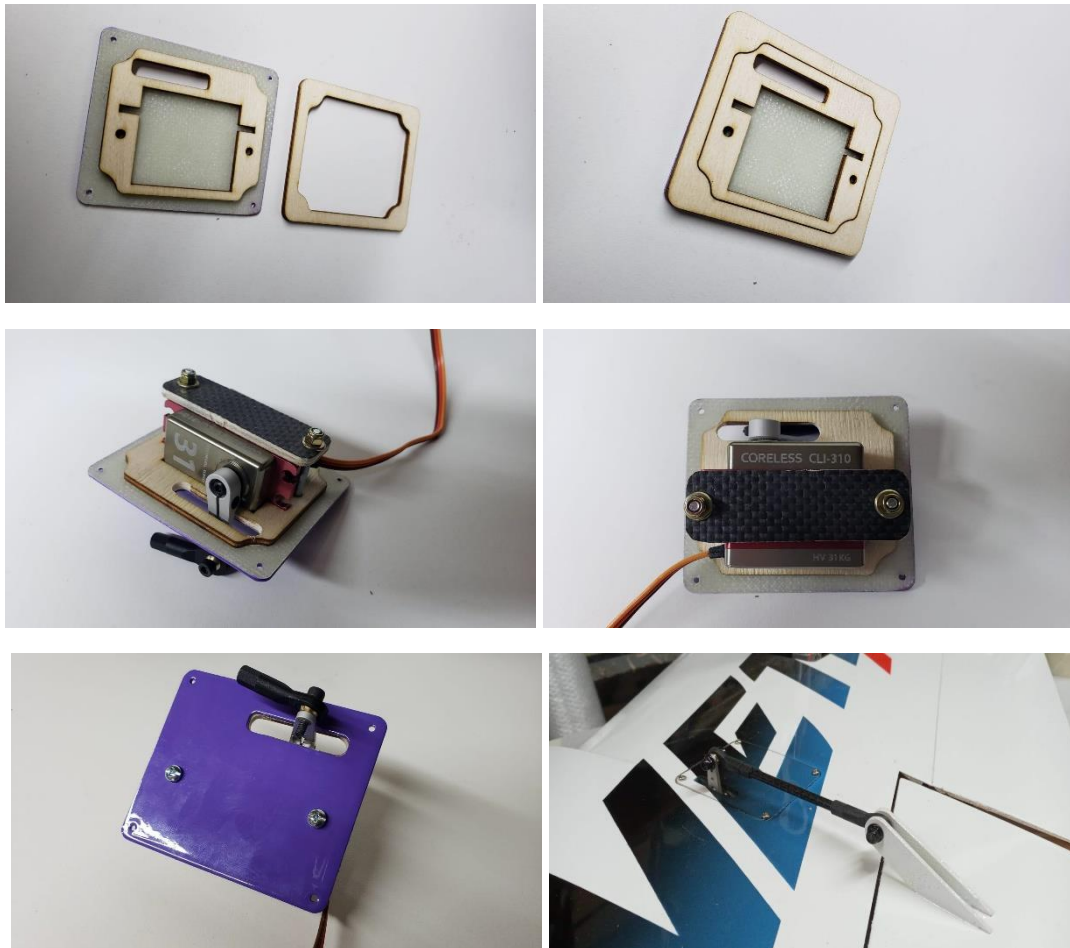
Make a hole 40mm from the front of the alignment pin with a size that allows you to run the wire harness for servos, retract, brake & lights if they are desired.



Space is provided where the mechanics for the retracts are installed to accommodate the connections between the wire harness (extensions) and the retract/brake system connectors.



AILERON SERVO



Inside the wing bag you will find the wood servo mount pictured above. Verify that the servo fits the mount tightly and adjust it if needed. Not all servos have the same dimensions. The outer portion of the of the supplied mount is used as a guide to help align the mount itself. The exterior dimensions are aligned with the aileron servo hatch. Mark the location of the inner portion that contains the servo and glue with medium CA. Once this step is completed, drill the holes for the M3 x 30mm bolts using a 3mm drill bit, (not included in the kit). Secure the servo using the carbon laminated wood plate and supplied hardware as shown in the pictures above. Use a 25mm servo arm.



Assemble the push rod for the Aileron utilizing the carbon fiber rod between the ball links. Verify the length and sand the ends if any adjustments need to be made to reduce the length of the rod until the correct length is found.



Assemble the flap servo with a 20mm arm and install the ball link to the arm of the servo. If this step is not performed now, it will be difficult to do so later on.

Mount the flap servo using the four Allen screws.

Assemble the pushrod for the flap, utilizing the carbon fiber rod between the ball links. Verify the length and sand the ends if any adjustments need to be made to reduce the length of the rod until the correct length is found.



Assembling the Landing Gear

Set the landing gear in the retracted position. For the strut, you will need to adjust the offset in the Electron retract using the set screw. Once the position is set, secure the set screw using the manufacturer's instructions.

Run the wire harness for the brakes and gear together with the Aileron flap, as shown in the pictures.

You can install the landing gear with your preferred method. Either using self-tapping wood screws (5mm) or with bolts and blind nuts. If you are using blind nuts, you will have to drill the holes with a 5mm drill bit to then put the blind nuts on the lower side. The Electron retract combo for the **KINETIX** does not include the bolt and blind nuts for this.





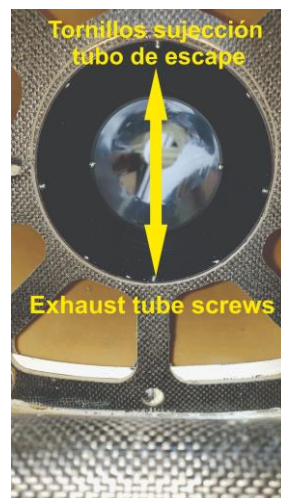
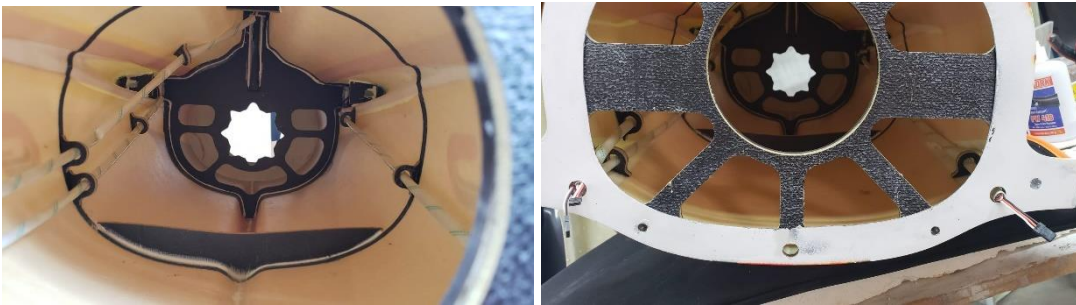
Fuselage (Rear)

Run the 75cm long elevator and rudder extensions (not included) through the guides, as shown in the pictures below. We also recommend covering the cables with a high temperature protector.

Secure the guides with medium CA glue to the fuselage.

Mount the exhaust pipe with the four wood screws as shown in the picture.

Screw the rear of the fuselage to the front part of the fuselage with the four M6 Hex driver bolts and washers.





Fuselage (front)

It is time to start on the front side of the fuselage

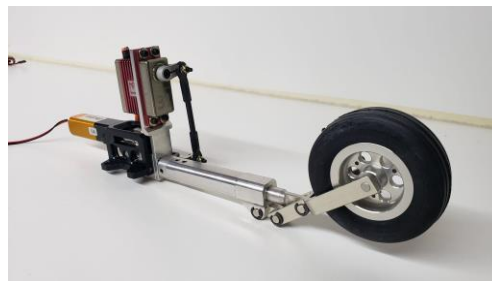
The first step is to assemble the nose gear.

For this, we should begin by assembling the front mechanism and strut, tightening the strut bolts and applying a drop of Loctite 242 (blue) Thread locker so it does not become loose over time.



Mount the servo onto the servo plate, as shown in the pictures. The length of the servo arm should be 20mm.

Assemble the nose wheel push rod, using the carbon fiber rod between the ball links. Verify the length and sand the ends if any adjustments need to be made to reduce the length of the rod until they get the correct length.





Position the retractable mechanism as shown in the pictures, respect the 4mm measurement. This ensures that it will stay in the right place and there is no interference at the time of extension and retraction of the landing gear.

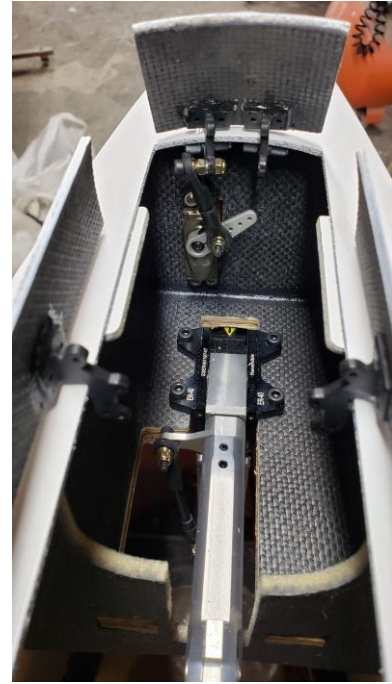
Now, it is time to mount the mechanism. For this, we recommend drilling a hole with a 4mm drill bit, screwing one of the M4 screws provided in the Electron combo, then drilling another hole and screwing another one of the M4 screws. The mechanism is now aligned. Repeat the same technique with the rest of the position holes.

Remove the mechanism and enlarge the holes with a 5mm drill bit. This is necessary in order for the blind nuts (provided in the Electron combo) to be able to enter. Mount the blind nuts using some glue and then screw the mechanism into its final position after the glue dries.

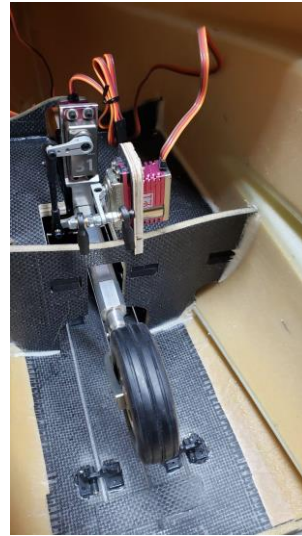
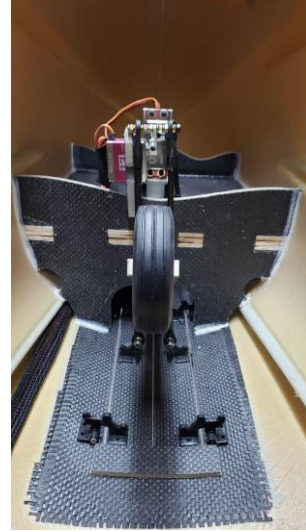
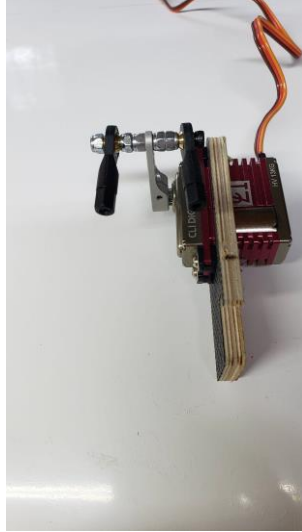


KINETIX

Install the servo for the front door. The space is 36 x 17mm. Use a 20mm servo arm. Assemble the push rod with two ball links on both ends as shown in the picture to the right.



KINETIX



Mount the back door servos on the carbon laminated wood.

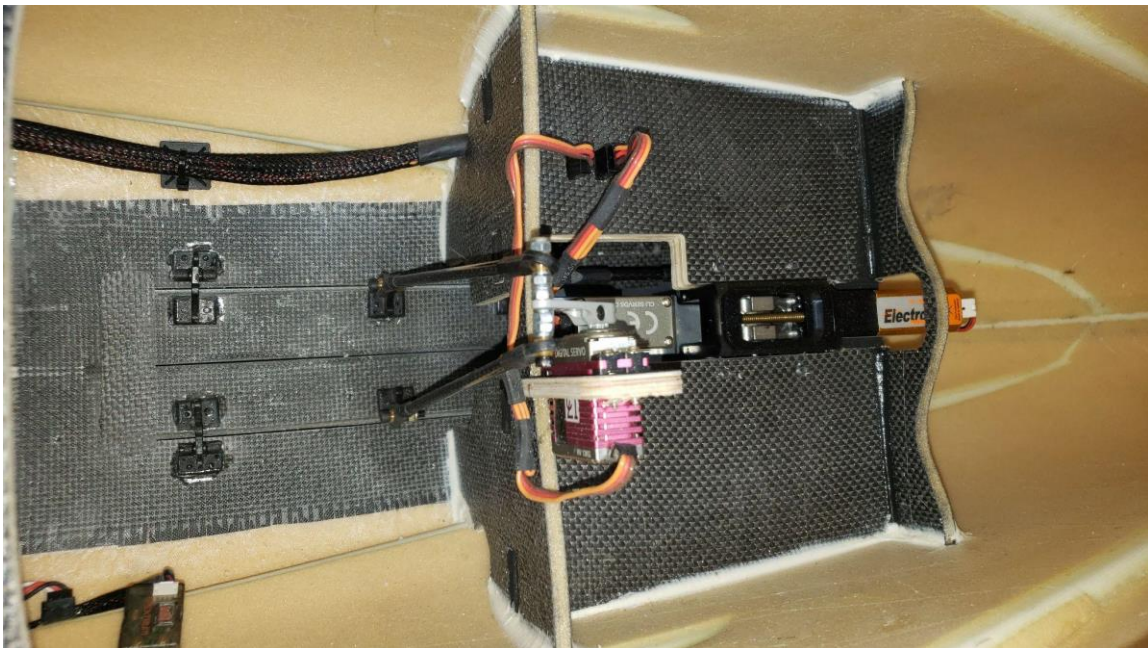
Use a 20mm servo arm for this.

Connect the ball links to the servo arm how it is shown in the photo. Use a M3 x 30mm screw. First, thread the ball links. Then, screw two M3 lock nuts. This combination is then screwed to the servo arm to then screw two M3 nuts. Thread the second ball link and finish assembling the combination with a M3 lock nut as it is shown in the pictures.



Glue the control horns on the doors.

Assemble the push rod for the doors, using the carbon fiber rod between the ball links. Verify the length and sand the ends if any adjustments need to be made to reduce the length of the rod until get the correct length.



Run the cables of the mechanism along with the front door ones through the holes that are found on the sides of the frame.

At the base of the front retractable mechanism, you will find two slots on the left side. These will serve to mount the connectors for the nose wheel servo extensions and the rear door servos. These connectors can be glued to the base with CA glue.



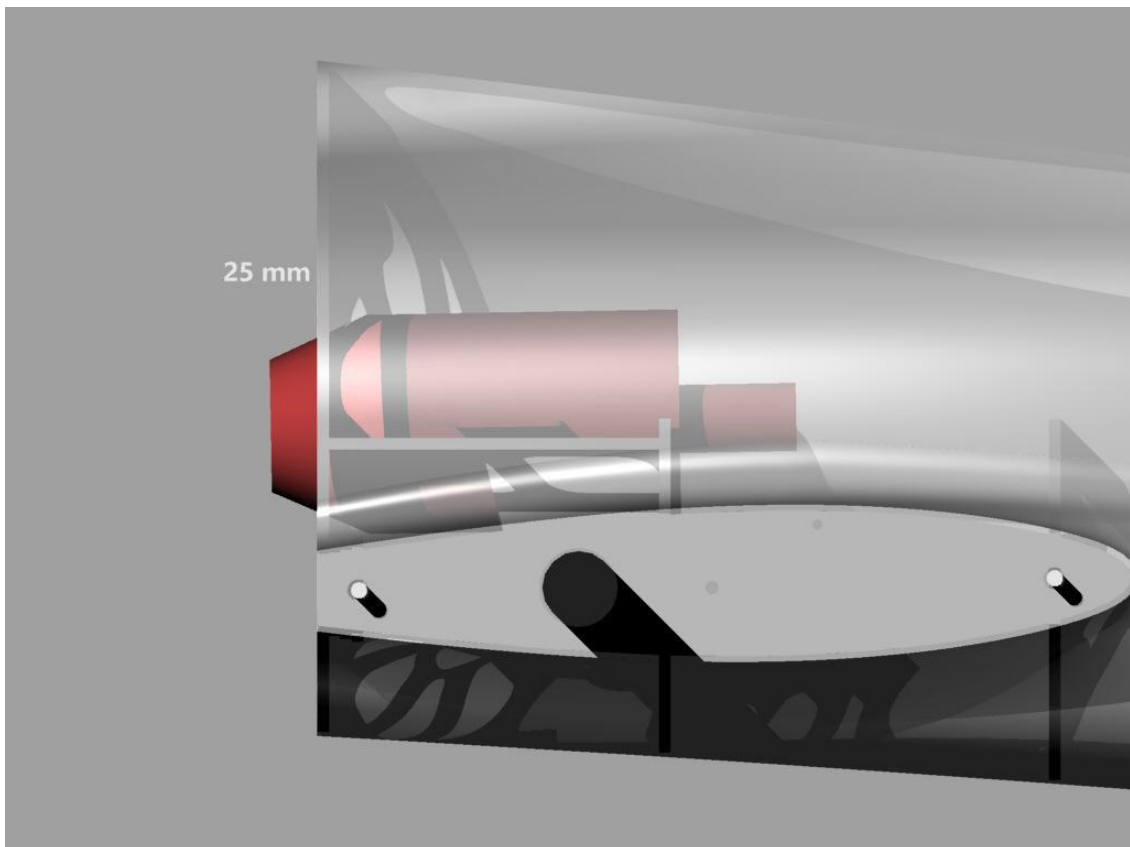
We provide an electronic tray where you can install the electronics (Receivers, ECU, Landing Gear Control, Gyro, and batteries). This tray is made of wood with laminated with carbon fiber. Check your radio manufacturer recommendations for the setup of the receivers to avoid any radio signal interference.



Pass the wire harness for the Ailerons, Flaps, Landing gear and brakes through the oval shape inside the fuselage.

Install the turbine engine (not included) with four screws, follow the manufacturer instructions for this process. The tail cone of the turbine exhaust should be 25mm outside of the front part of the fuselage (see picture below). The KINETIX has been tested with turbines up to 21 kg/thrust, this propulsion is enough for perfect performance.

Install the UAT (not Included).





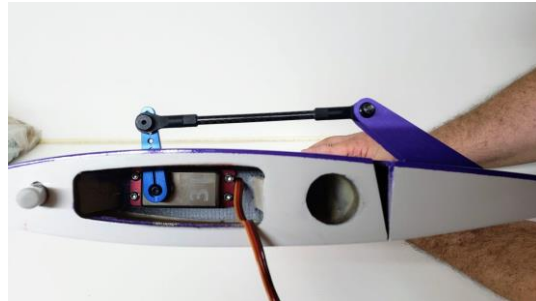
Stabs (Elevators) Installation

Install the servo in the slot provide for the servo inside the stab using a self-tapping screw or the hardware provided by the servo manufacturer.

Use the 38mm servo arm for this surface.

Assemble the elevator push rod, using the carbon fiber rod between the ball links. Verify the length and sand the ends if any adjustments need to be made to reduce the length of the rod until they get the correct length.

Repeat this process for the other elevator.





RUDDER INSTALLATION

Install the 25mm servo arm before mounting the servo in place. Once the servo is located there is no access for adjustment.

Install the servo (see picture below).

Assemble the rudder push rod, using the carbon fiber rod between the ball links. Verify the length and sand the ends if any adjustments need to be made to reduce the length of the rod until they get the correct length.



ADJUSTMENT PRE-MAIDEN FLIGHT

After the installation process it is important double check everything.

The **KINETIX** has been tested using a turbine up to 21 kg. of thrust, we do not recommend exceeding this thrust.

We provide a template to check the CG balance. This is located in front of the wing tube. The landing gear should be extended and the UAT full of fuel.



Travel Adjustment:

Elevator up & down 25mm measured at the root. Expo 20%

Aileron up & down 14 mm measured at the wing tip. Expo 20%

Rudder right & left 60 mm measured at the rudder bottom. Expo 25%

Flaps take-off 30mm measured at the wing root.

Flaps Landing 100mm measured at the wing root.

From ST jets we wish you the best experience on the first flight and all after.



