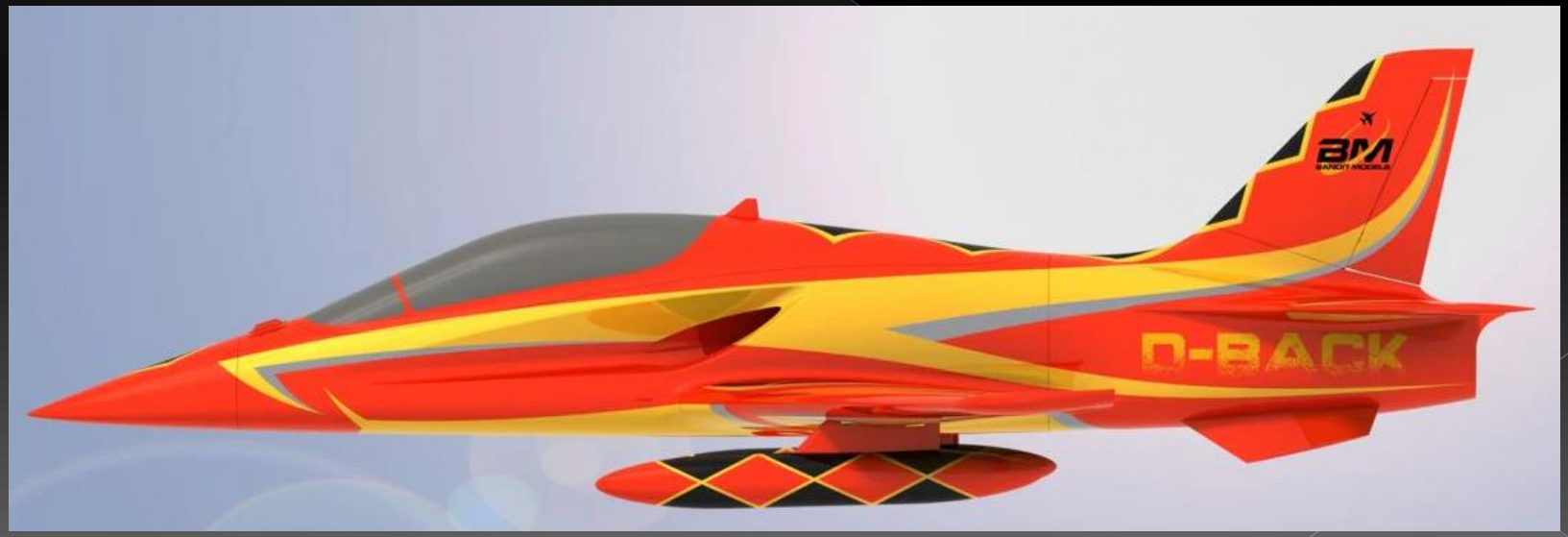
# Diamondback Build Guide

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# Introduction

## Thank you for purchasing our product. Bandit Models is very happy to introduce the Diamondback Sport Jet!

Bandit Models is a premier model jet manufacturer, there manufacturing principles and quality management standards are derived from 20+ years of design, manufacturing and engineering of hi-performance model aircraft, they strive to deliver high-end products and customer satisfaction.

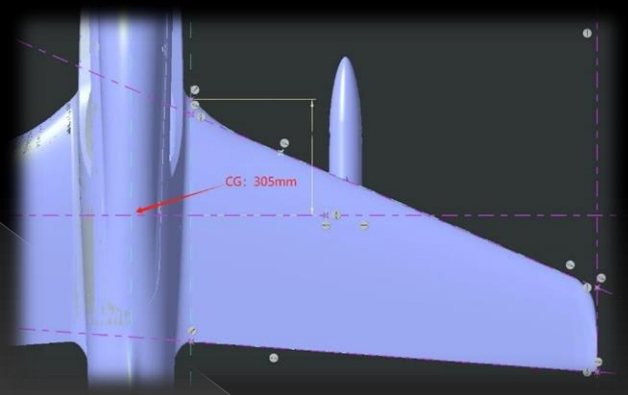
This Build Guide will help you with the assembly and basic lay-out of your model. The build information suggested in this manual will show you basics for installation. There are many ways to install components/equipments to personalize and make this model successful.

**Tips for Success:**

- Don't rush! Allow plenty of time for your build. Take your time, enjoy it, and do it right.
- Don't be afraid to ask questions!
- We recommend completing the latter part of your build on a CG stand…when you're down to the components, lay them out to get the proper location for the CG
- After your build is complete, have another turbine operator/pilot review your build. A fresh set of eyes is a good sanity check.

# Diamondback ARF Kit:

- Fuselage FWD & AFT section with canopy and nose cone
- Rudder and Stabs (Factory Hinged)
- Wings, Factory Hinged Ailerons with Flaps
- Painted Wing Tanks
- Electric Landing Gear with struts wheels and brakes. Includes T-One gear controller
- Complete Hardware Package
- Linkage and ball links
- Dual Walled Pipe
- Kevlar Fuel / Smoke Tank with fittings

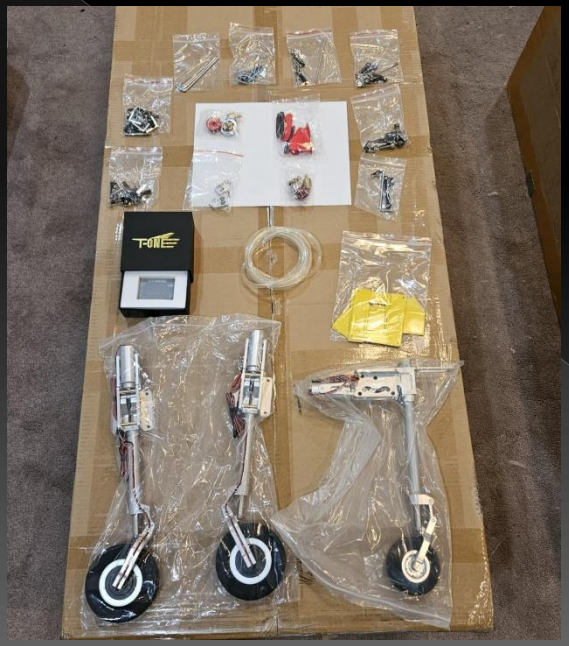



# Specifications, control throws and CG:

- Length: 95"
- Wingspan: 97"
- Fuel Tank: 5L Fuel, 1L Smoke
- Recommended Engine 160N - 180N
- Total Servos (9)
- Center of Gravity: 305mm from leading edge of wing root.
- Recommended Aileron Throw: +18.5mm Up / -16mm Down
- Recommended Elevator Throw: 30-35mm
- Recommended Rudder Throw: 50-55mm
- Recommended Flap Throw: Half flaps = 50mm, 120mm, Full flaps to the drop tanks

# Un-boxing and Inspection

Carefully remove all the parts from the boxes and bubble wrap that they are encased in. Do not use a knife or razor as you can inadvertently cut through the packaging and damage the finish of the parts. Peel or use scissors to carefully cut and remove the tape. Inspect all parts for any shipping damage and test fit.



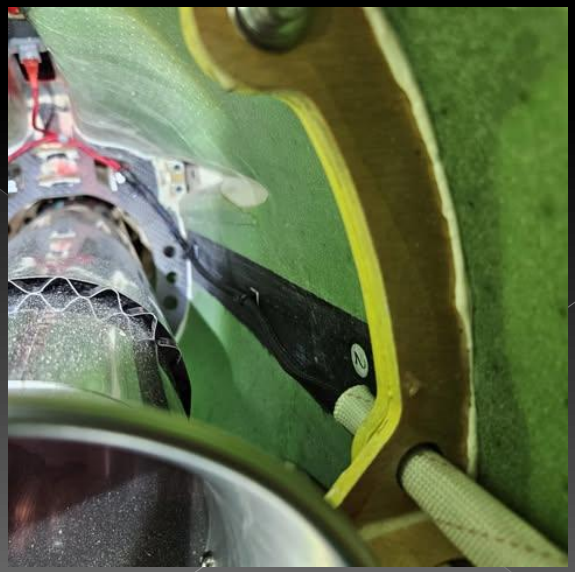
# AFT Fuselage Zip Tie Mounts & Harness Installation

For this process we use self adhesive Zip Tie mounts and small Zip Ties to secure the wire harness in place. You can use a wire heat shield to protect the wires as needed. Use the photos for reference on where to install the Zip Tie mounts and harness. Note: Start wire harness installation from the AFT forward leaving at least 2" of wire out of the fuselage at the vertical and horizontal attachment points.

Once wires are secure, test fit the pipe to make sure nothing in touching, the pipe. CA or Hysol on edges of Zip Tie mounts for permanent adhesion.

Make sure to have no sagging wires. You can use aluminum tape or Fiberglass heat tubing around wires for added heat protection.

**AFT Fuselage**



# Pipe Installation

Slide pipe into place and set the end of the pipe approx. ½" past the end of the fuselage at the bottom. We recommend using a heat shield coating/paint around and inside of the 'Duck Tail" area.

Measure, drill and mount the pipe using the tabs with the pre-drilled holes and screws making sure the pipe is center to the bulkhead opening.

# Servo Wires / Connections Installation

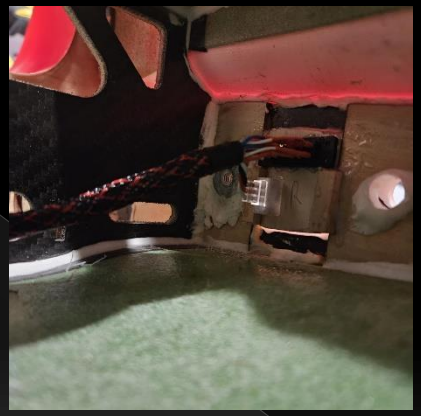
There is a Pre-Made wire harness kit available through *pacificrcjets.com* for the Diamondback.

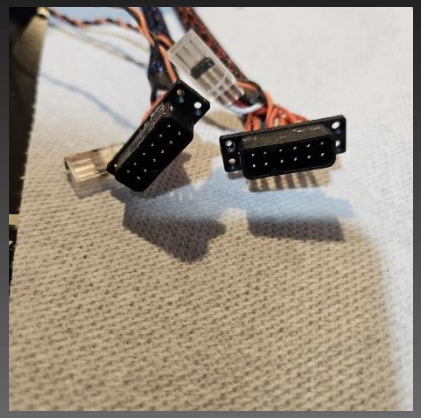
In this build we are using a hand made wire harness and custom connection points.

Install the harness throughout the wings, tail and front section of the model. Make sure the harness is secure.

For the Rudder and elevators, make sure your servo leads have at least 2" out from the connection locations.

For the Wings, make sure your connections are always at the servo mounting location just in case a servo needs replaced.



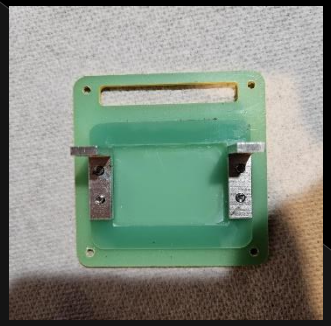


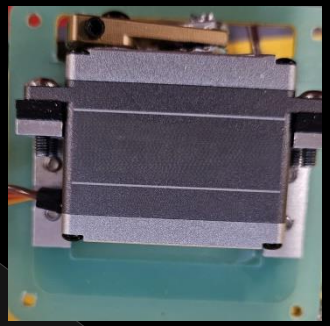
# Aileron & Flap Servo Installation

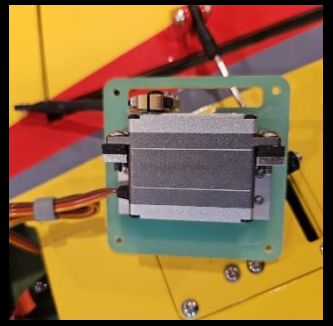
Using the provided “L” brackets, secure them to the Servo covers using the supplied button head screws, use Loctite. Center the Servo and install servo arm using Loctite. Install servo with the horn centered to the slot. Install 3mm servo screws and washers, secure screws using Loctite. Plug in and secure with Heat Shrink or clips to your wire harness. Secure servo hatch to the wing with screws.

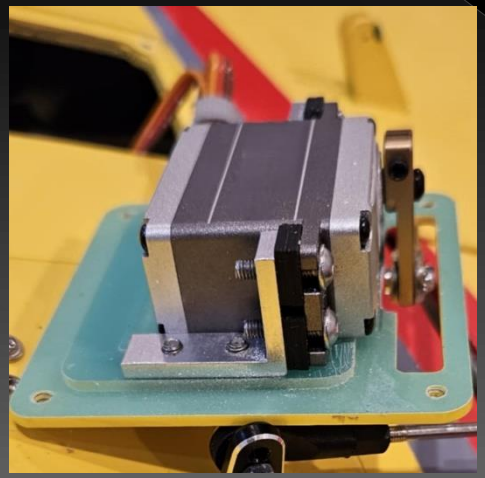
Make sure your servos are centered, adjust linkage so that the control surface is at neutral center position.

Install servo linkage using the supplied linkage, screws, washers and nuts. Repeat for the other aileron and flaps. ***(NOTE, Trimming may be needed for different servo types and horns)***









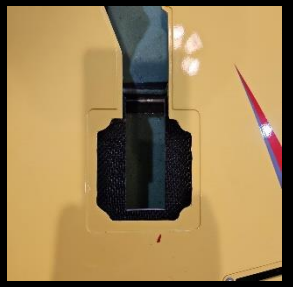
# Main Gear Installation

*If your Main Gear is not factory installed you will need to remove the strut from the retract unit and slide the Door Mount onto the main strut and re-install back onto retract.

Locate the Main Gear retract assembly on the gear plates in the wing making sure the tire clears the round cut-out all around evenly.

Carefully mark and drill the 4 holes to install the wood screws for the gear. *Do not drill to deep as you will damage the wing skin. Recommended to use a short drill bit.*

After gear is installed, fit the main door in place to the Door Mount and drill holes in door as needed. Use button head screws to install. Install gear cover and repeat other wing.



**Make sure all wires are secure and tied down from gear operations**

# Nose Gear & Steering Servo Installation

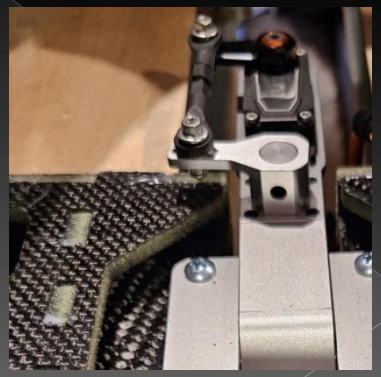
Your nose gear door will be pre-installed along with the Door and door servo*

You will need to install your steering servo. Center the Servo and install servo arm using Loctite. Install servo using 3mm servo screws and washers to secure Servo in place. use Loctite.

Connect ball linkage using 3mm screws and lock nuts.

Plug in the wire harness extension in and secure with Heat Shrink or clips.

**If your nose gear is not factory installed, it installs from the inside of the airframe Top Side of the gear plate mount. Center and pre-Drill holes then use wood screws to secure in place.*



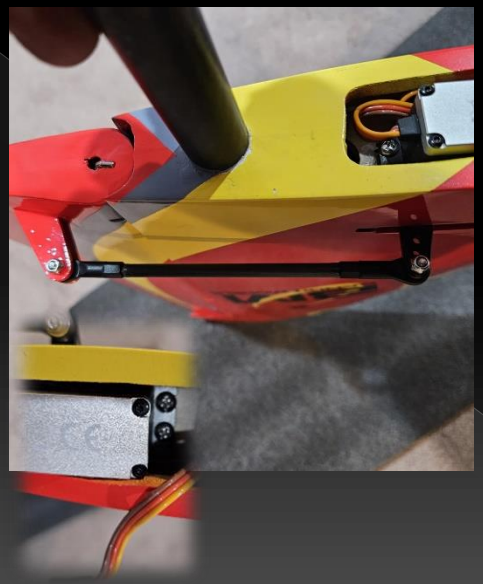
# Rudder Servo Installation

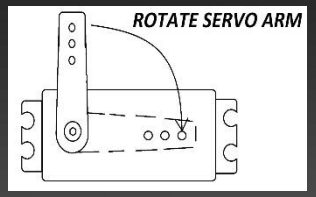
Center the Servo and install servo arm using Loctite. Rotate the servo arm and Install servo in Rudder. Rotate the servo arm back out of the slot and check clearance. Trimming/Servo spacing might be required.

Install 4 wood servo screws and washers.

Make sure your servo is centered, adjust linkage so that the control surface is at neutral center position.

Install servo linkage using the supplied 3mm screws, washers and nuts.






**MAKE SURE SERVO ROTATION IS MOVING THE CORRECT WAY AS TO NOT DAMAGE RUDDER!**

# Elevator Servo Installation

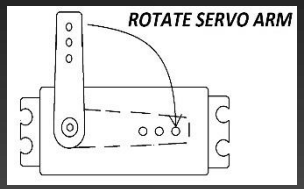
Center the Servo and install servo arm using Loctite. Rotate the servo arm and Install servo in Elevators. Rotate the servo arm back out of the slot and check clearance.

Trimming/Servo spacing might be required.

Install 4 wood servo screws and washers.

Make sure your servos are centered, adjust linkage so that the control surface is at neutral center position.

Install servo linkage using the supplied 3mm screws, washers and nuts.



**MAKE SURE SERVO ROTATION IS MOVING THE CORRECT WAY AS TO NOT DAMAGE ELEVATORS!**

# FWD/AFT Fuselage Bolt-Together

This processes is pretty simple. Run your AFT section wires through the forward fuselage.

Make sure not to pinch the wire harness in the process.

Line up the FWD/AFT sections together and Install the 4 Bolts with washers and tighten down.

# Turbine Install

When installing the Turbine, make sure the engine is centered to the pipe and the height and angles are correct as well.

You will want to make sure your spacing is correct to the engine you install. ***See your Turbine owner's manual for the correct spacing.***
In general, a normal spacing of 1" from the end of the tail cone to the beginning of the pip (NOT THE BELL MOUTH) is acceptable

Drill and secure engine with large wood type screws or bolts and blind nuts

# Nose cone Installation

Installation of the nose cone is simple. Access screws from the front of the fuselage area.

We have found that there is no need to install anything in the nose cone section for CG.

The nose cone bolts on with (4) machine screws.

Do not torque as that can cause damage to the paint, screws only need to be snug.

# Fuel Tank

For the Fuel/Smoke Tank, Install the fittings using a Hysol type adhesive, Unless fittings are pre installed from the factory.

Use a long brass tubing and build your clunk system similar to this setup. This will keep the tubing from curling and also keep it at the back of the tank. Make sure you have at least ¼' from the end of the clunk to the back of the tank for movement. Secure with wire-tie.

Run your Fuel/Smoke vent lines through the bottom of the airframe (Your Location)

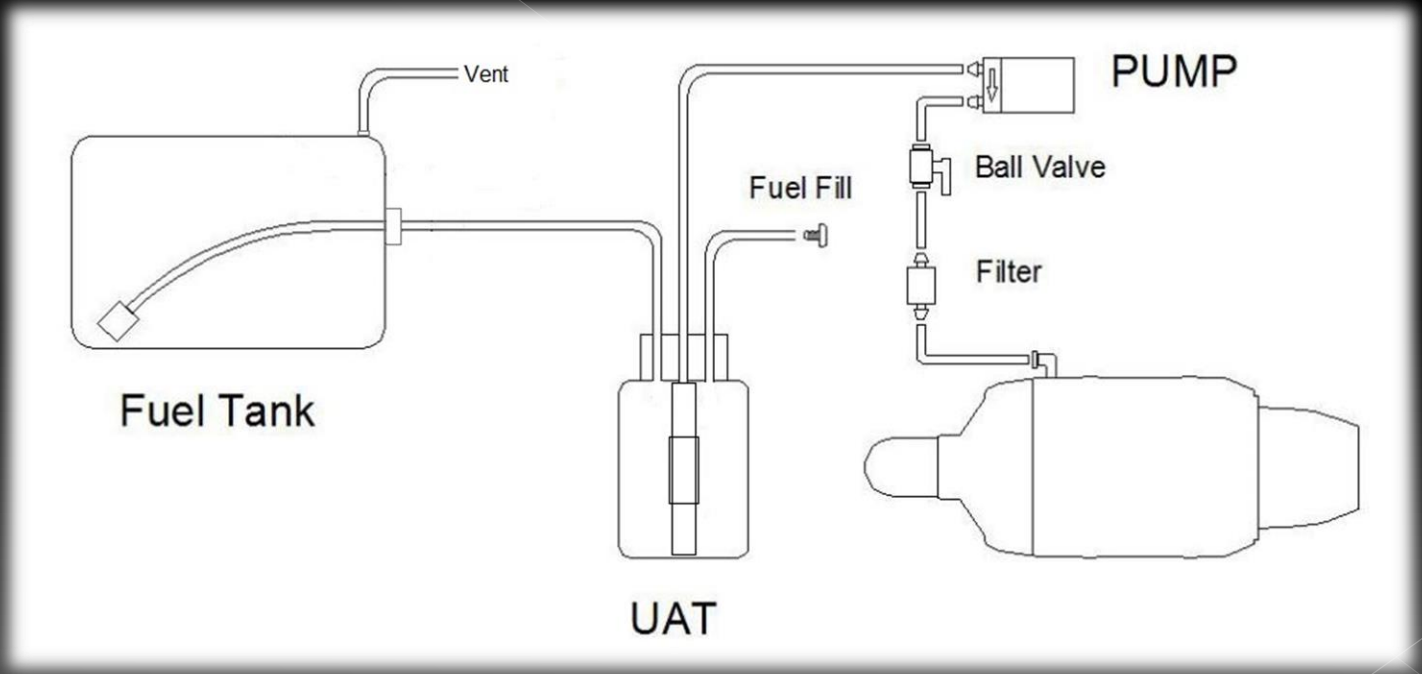
# Fuel Tank Installation

For Fuel Tank installation, use the supplied HOOP at the aft of the tank and bolt it in place.

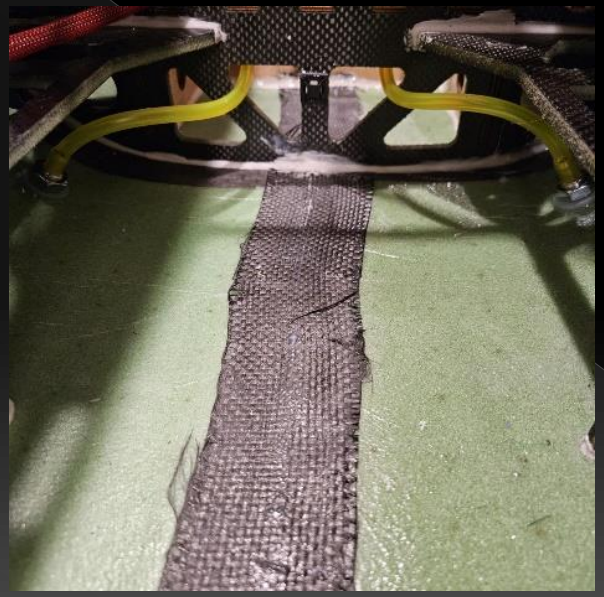
For the front you can use a large zip tie to secure around the lower frame.

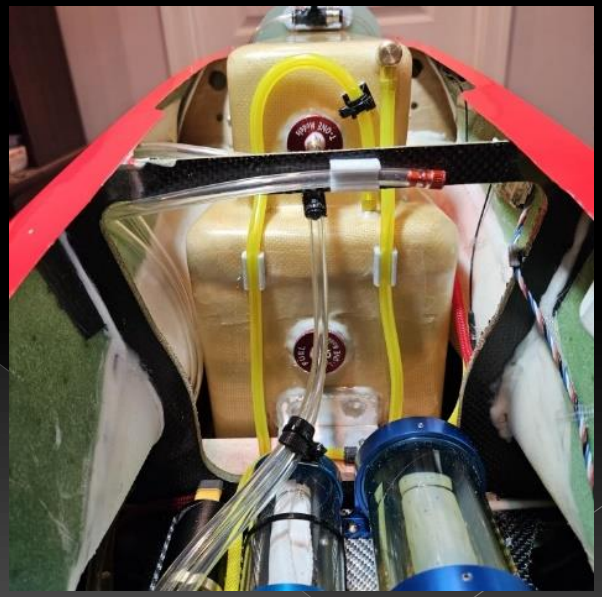
In this case we built a bracket and Hysol to the front of the tank to secure to the wood bulkhead seen in the photos.

# Basic Fuel Tank Plumbing Reference

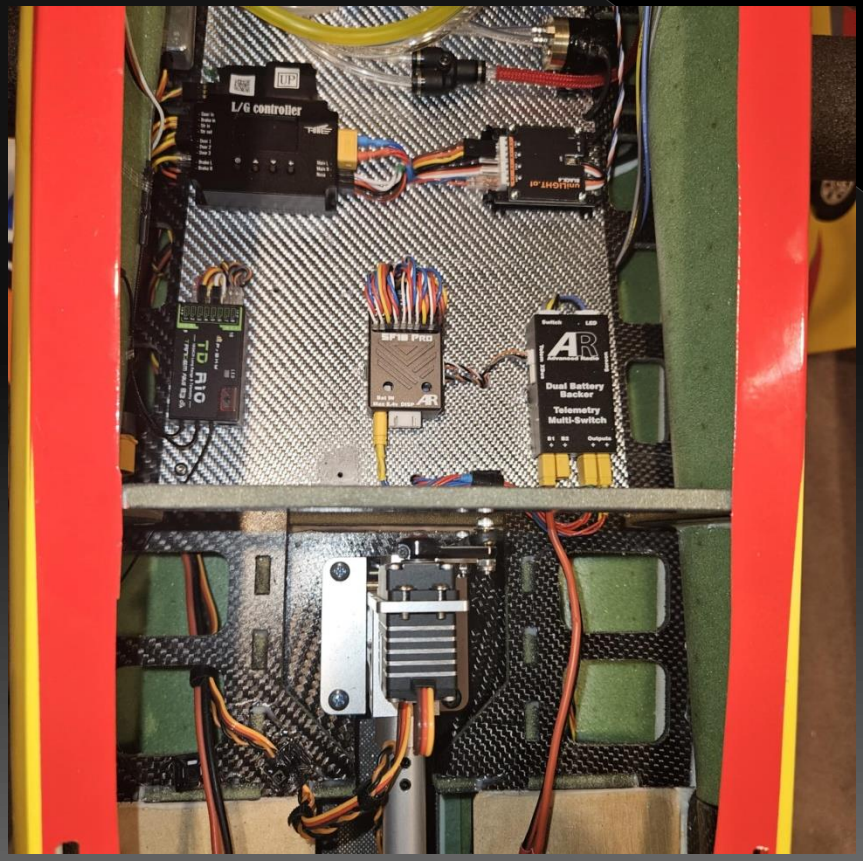


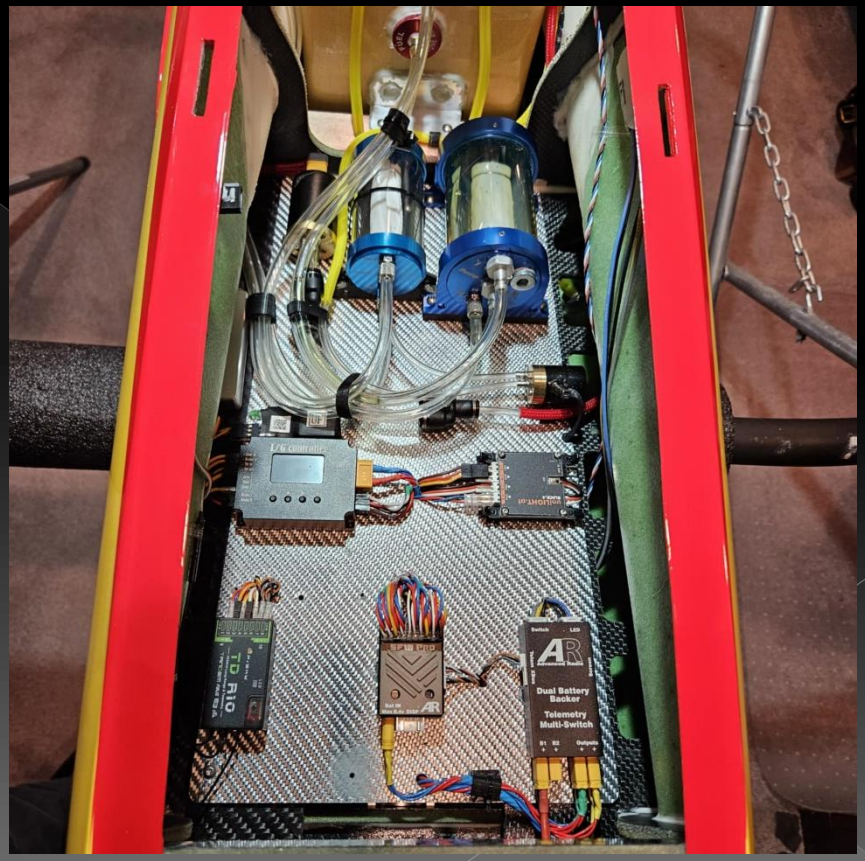
# Fuel & Smoke Tank Plumbing Reference





# Completed Install Photos for Reference



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