EXTREME FLIGHT

TURBO BUSHMASTER

84IN/2.1M

6S 3000-5000MAH

7.5-8.5 LBS / 3.4-3.9 KG

LEGACY AVIATION

Please read the following paragraphs before beginning assembly of your aircraft!

THIS IS NOT A TOY! Serious injury, destruction of property, or even death may result from the misuse of this product. Extreme Flight RC is providing you, the consumer with a very high quality model aircraft component kit, from which you, the consumer, will assemble a flying model. It is beyond our control to monitor the finished aircraft you produce. Extreme Flight RC will in no way accept or assume responsibility or liability for damages resulting from the use of this user assembled product. This aircraft should be flown in accordance to the AMA safety code. It is highly recommended that you join the Academy of Model Aeronautics in order to be properly insured, and to operate your model at AMA sanctioned flying fields only. If you are not willing to accept ALL liability for the use of this product, please return it to the place of purchase immediately.

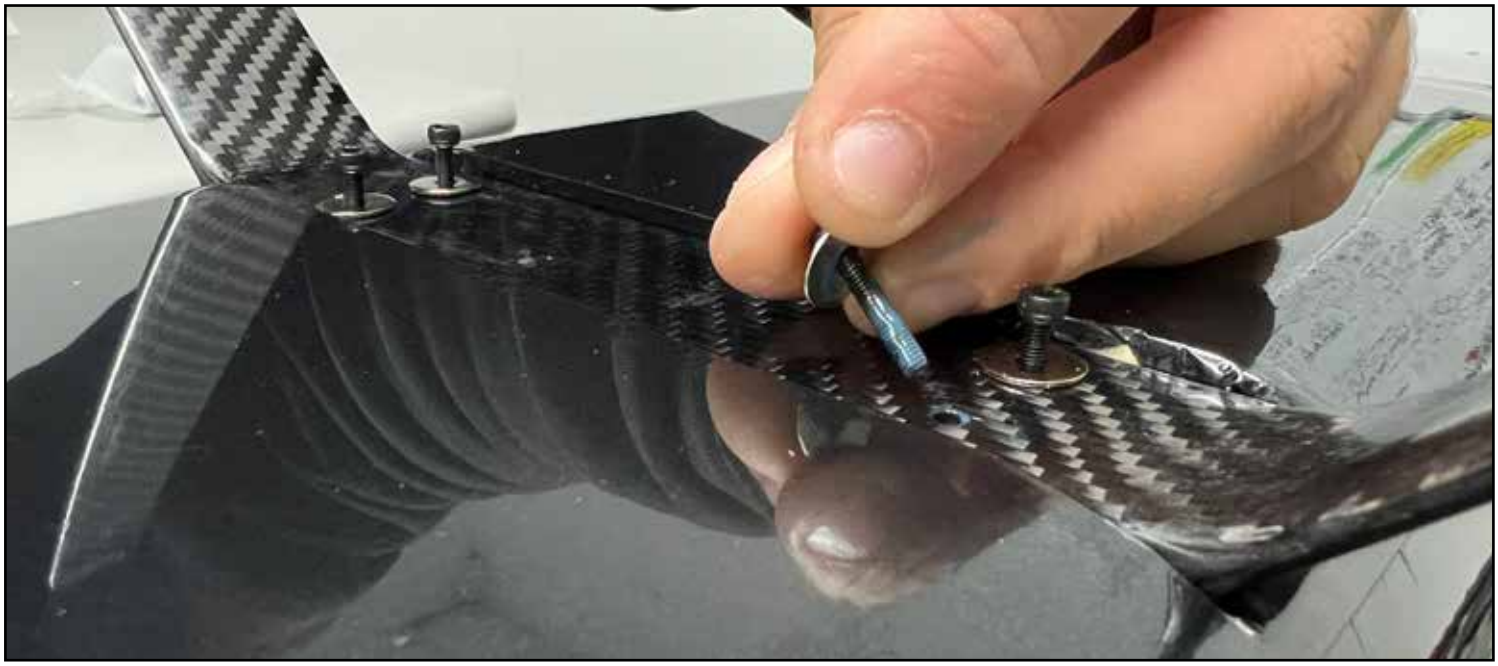
Extreme Flight RC guarantees this kit to be free of defects in materials and workmanship for a period of 30 DAYS from the date of purchase. All warranty claims must be accompanied by the original dated receipt. This warranty is extended to the original purchaser of the aircraft kit only.

Extreme Flight RC in no way warranties its aircraft against flutter. We have put these aircraft through the most grueling flight tests imaginable and have not experienced any control surface flutter. Proper servo selection and linkage set-up is absolutely essential. Inadequate servos or improper linkage set up may result in flutter and possibly the complete destruction of your aircraft. If you are not experienced in this type of linkage set-up or have questions regarding servo choices, please contact us at info@extremeflightrc.com or 770-887-1794. It is your responsibility to ensure the airworthiness of your model.

SPECIAL NOTE ABOUT HARDWARE

Your kit includes both original and UPGRADED screws and nuts for your pushrods. The upgraded screws are black oxide coated and use nylon locking nuts. Please use this upgraded hardware in your build. The upgraded hardware is packed in a bag attached to the spinner packaging.

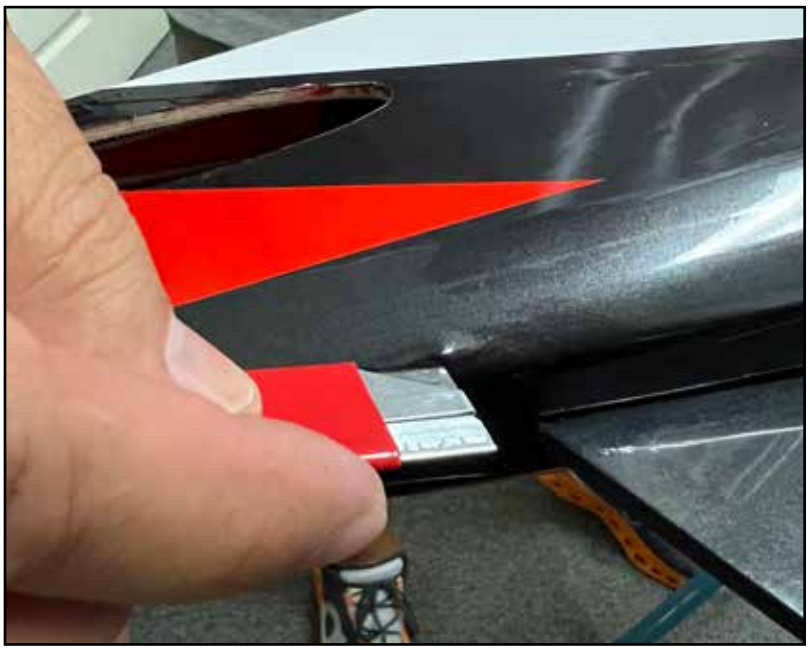
1. Attach the landing gear to the fuselage with the 4 included screws and washers. Use blue loctite thread locking compound on these screws. Test fit the fiberglass landing gear fairings, and mark the location onto the landing gear. Sand the area and apply “Goop” or other rubberized adhesive and install the fairing. Apply tape and allow to dry.



2. Using the washer and locking nut, attach the axle to the landing gear. We recommend to grind small flat areas into the axle as shown to help the set screws in the wheel collars to grip the axle better. Install one collar (using loctite on the set screw), then the wheel, then the second collar. NOTE we are showing the optional KAVAN upgrade wheel available from Extreme Flight RC. Locate the bottom fin, remove covering over its installation slots in the fuselage, and install as shown using CA glue.

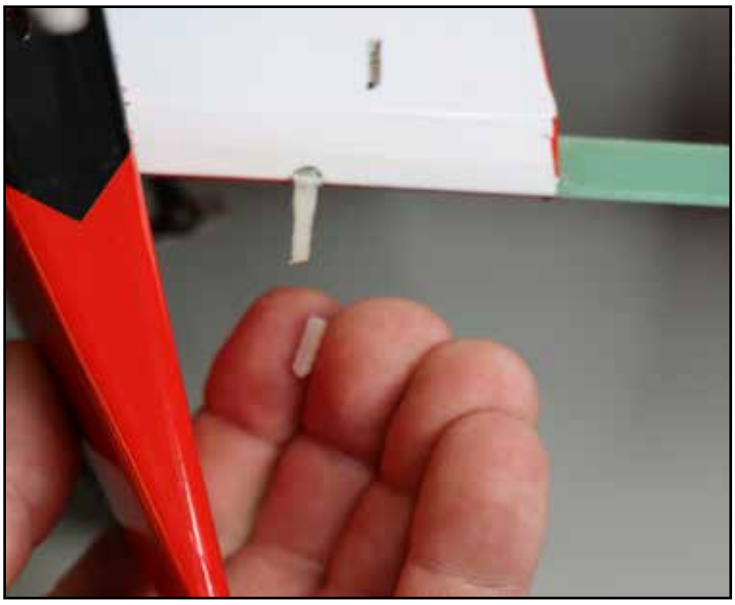
3.

Locate the tailwheel pushrod, packed in the wing bag. Push the pushrod through its guide tube to create a dimple in the covering and cut the covering so the pushrod emerges from the fuselage as shown. Attach the tailwheel to the fuselage using the included screws and blue loctite. Screw the ball link connector onto the pushrod (here we use a cordless drill) and attach to the tailwheel tiller with 2mm screw and locknut.

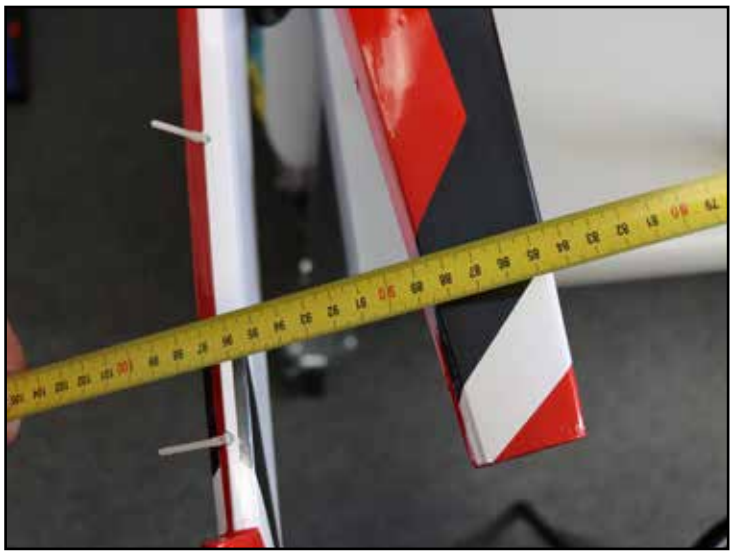


4.

The elevator inserts through the opening in the rear of the fuselage, upside down and backwards, and then after it is centered, flip it over to the proper position. When you insert the elevator, one of the hinge points will be a tight fit. Don't risk breaking this hinge point, instead trim off about 3/8" (8mm), so you can slide it through. Then insert the horizontal stabilizer as shown.



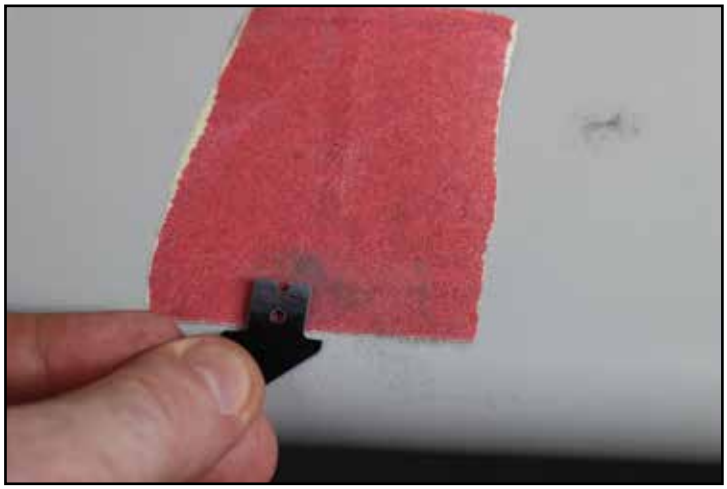
5. Use a tape measure to check the alignment of the horizontal stabiliser to the wing tube, and glue in place with thin CA. Clean up any CA drips with acetone. Use epoxy glue to install the hinges into the stabilizer, make sure the elevator moves freely. Allow to cure. The vertical stabilizer and rudder install with a carbon tube and 3mm screw. Use loctite on this screw. Glue the filler piece between the rudder and fuselage with CA glue.

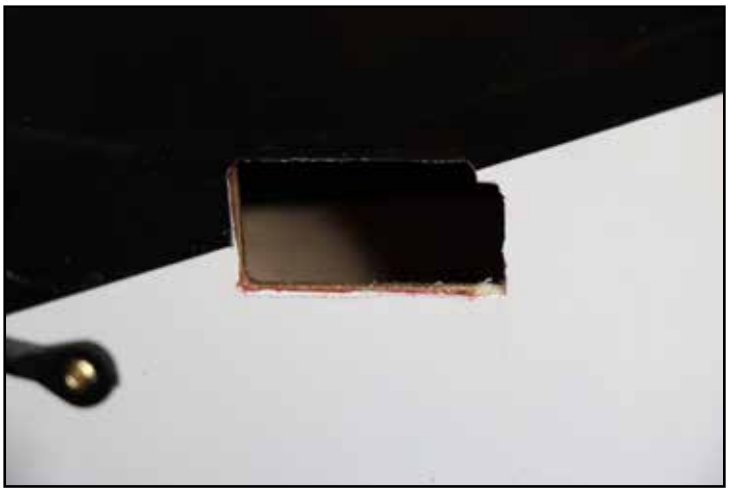


6. Locate the hardware for the Stab and Rudder.

Installing control horns: All of the control horns on your aircraft install in the same way. Locate the correct control horn for each surface. Prep the horns by lightly scuffing the gluing area (the part which will go into the control surface) with sandpaper or an emery board. Test fit the horn without glue to make sure it goes all the way into the surface as shown. To permanently install the horn, place medium CA glue into the slot, insert the horn fully and firmly into the slot, and then add a few drops of thin CA.

The 84"Bushmaster can be flown as a gentle sport flyer, or a high power STOL/3D plane. For slower flight, it can use smaller servos, and the servo openings in the kit are 33mm long. To fit higher performance servos such as Savox 1261 or Theta 989, open the servo locations to 35mm long.



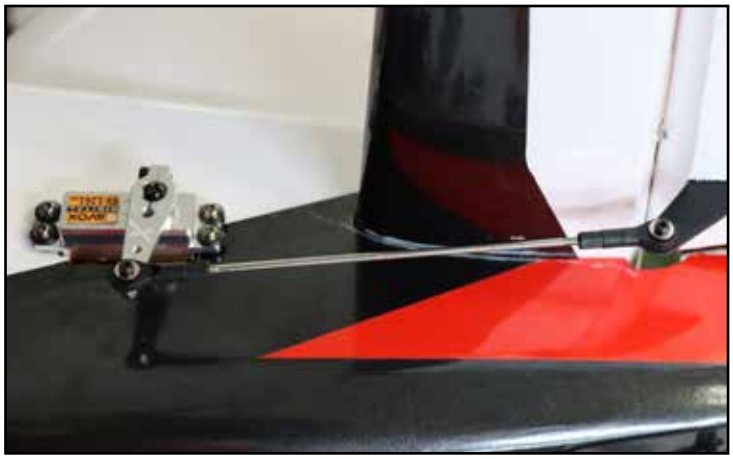


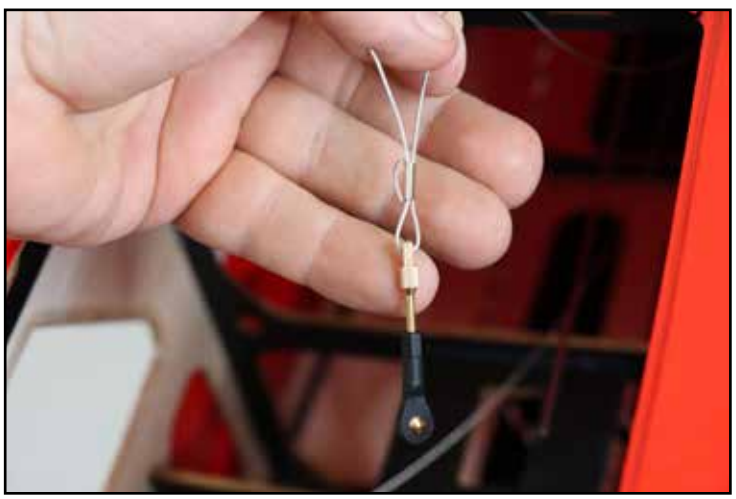
7.

Using epoxy glue, mount the stab fences to the ends of the horizontal stabilizer as shown.

Optional Step: Included in your kit are two balsa pieces which can be used as fillers by installing with CA glue behind the elevator. To color match these panels, your kit includes spare covering sections, also useful for small repairs.

Install the elevator servo as shown, running the extension for the servo through the fuselage and using tape or a plastic clip to prevent the extensions from becoming unplugged in flight. Thread the rudder cables through the slots on either side of the vertical stabilizer/rudder and into the fuselage as shown. Run the cables forward, crossing them once to form an X shape inside the fuse. Assemble the cable ends as shown, crimping the crimp tubes with pliers and adding a drop of thin CA. Install the rudder servo, assembling the arm with cable ends and tailwheel pushrod as shown. Note that the tailwheel pushrod connector should be left loose enough to rotate freely in the arm and a drop of medium CA locks the nut in place.

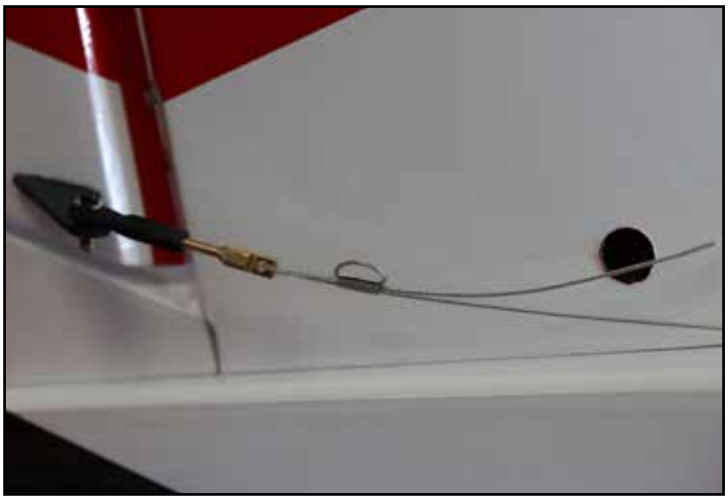




8.

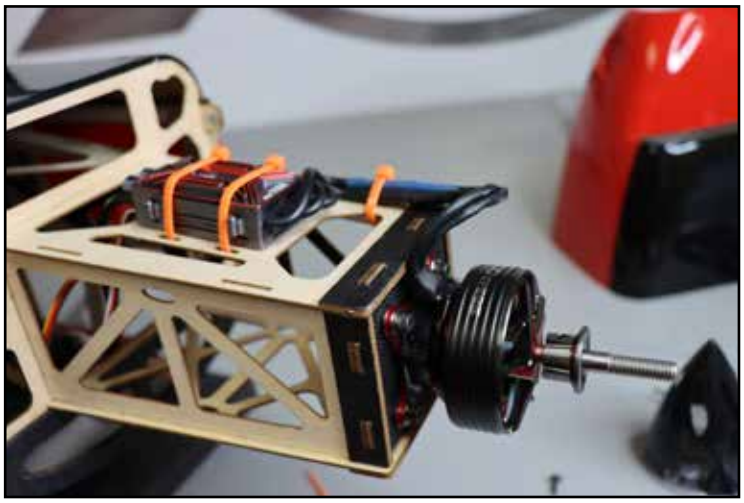
Tape the rudder as shown to hold it straight while you assemble the cables at the rear. Assemble the cable ends as shown onto the rudder horns. Pull the cables taut and through the crimp tubes and crimp as shown. Add a drop of thin CA to the crimp. Thread the cable ends into the ball links to tighten the cables as needed. The goal is no sag and no play, but it's not necessary to make them "bajo string" tight.

Scuff the recesses on the cowl, and the ends of the turbine exhaust pipes, and glue in place with epoxy. Tape as necessary while the epoxy cures. Attach your brushless motor to the motor box with loctite, here we are showing the installation of the recommended T-Motor AM600.

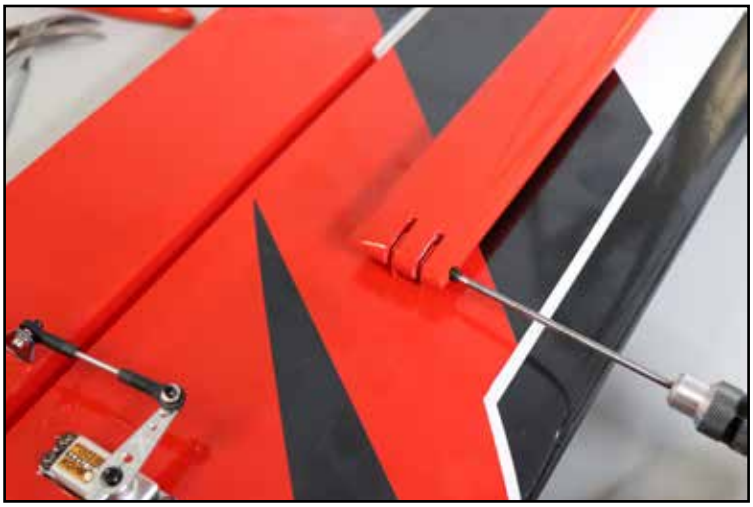


9. Mount your ESC as shown, tying all wires securely. Install the cowl and check the fit of the prop mount to make sure it extends a few mm beyond the front of the cowl. If you need extra motor extension, your kit includes motor mount spacers as shown.

Locate the Main Wing hardware. Assemble the pushrods and install the control horns as you did for the tail. Mount the servos into the wings, along with any extensions needed. Note the orientation of the servos, arms, and pushrods.



10. Locate the wing strut mounts and screws. Attach the strut mounts with loctite. Find the correct (Right or Left side) strut and attach to the strut mount with the long screw. Lock the screw with a drop of thin CA on the head. The strut is intended to fold against the wing as shown for storage. Locate the wing fences and glue into the slots in the wing using epoxy. Tape the fences in place as they dry. Clean up any excess glue with denatured alcohol.

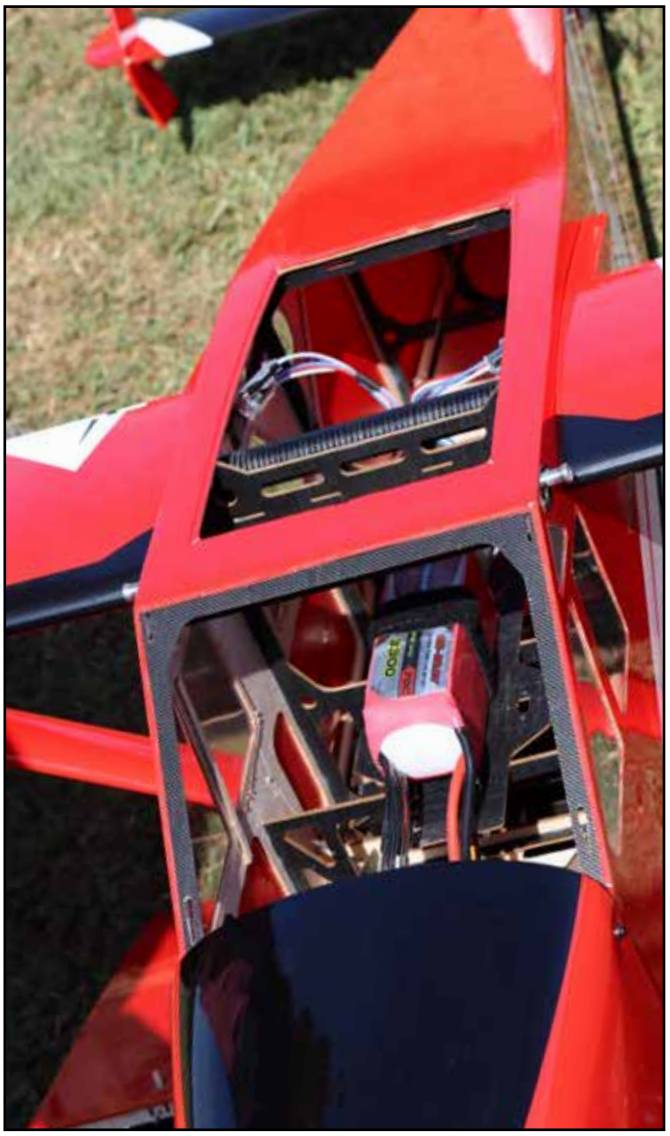


11.

Locate the lower strut mount inside the fuselage. This is where the struts are mounted for flight with a screw.

The balance point for the maiden flight of the Bushmaster is on the wing spar tube, you can easily support the plane by the tube and it should hang level. Move your LiPo battery to adjust CG. Be sure to use adhesive velcro on your battery and battery tray AND a velcro strap around the battery and tray, to retain the battery in place.

For convenience in field setup, we recommend the use of MPX dtwo-wire connectors (available at ExtremeFlightRC.com) to connect the aileron and flap servo wires in the fuselage.



12.

Control settings:

Elevator: Low Rate 8-10 deg. 15-20% expo
3D Rate 45 deg. 60-70% expo

Aileron: Low Rate 15-20 deg. 20-30% expo
High Rate 38-40 deg. 60-70% expo (For best roll rate, mix flaps to ailerons)

Rudder: Low Rate 20 deg 40-45% expo
High Rate 45 deg. 70-80% expo

Flaps: 40 degrees full deflection with 5% down elevator mix at full deflection

NOTE: Check rudder and elevator for interference at full deflection.

Covering colors:

Oracover colors	Ultracote colors
RED/WHITE Scheme	
Ferrari Red #23	True Red-#HANU866
White #10	White-# HANU870
Silver # 91	Silver-#HANU881
Black #71	Black-#HANU874
BLUE/WHITE Scheme	
#52 dark blue	Midnight blue #HANU 885
White #10	White-# HANU870
Cub Yellow #30	Cub Yellow-#HANU884

Before flight, use a covering iron to go over all seams on the covering. Double check the direction the controls move in and verify your prop is installed correctly. Check your power system on the ground in a safe manner. Enjoy your Bushmaster!