



Quadzilla Build Manual

QZ-V2

Packing List

- (2) Bags of 2 booms
- (1) Bag of 12 aluminum spacers (15, 30 & 36mm)
- (1) Bag of 96 washers
- (1) Bag of rubber isolators, nylon screws, and nylon nuts (4 each)
- (1) Bag of 32 clamp halves
- (1) Bag of 32 M3x45mm cap head screws
- (1) Bag of 16 M3x5mm button-head screws
- (1) Bag of 16 M3x10mm button-head screws
- (1) Bag of landing gear
- (1) Bag of carbon fiber plate set

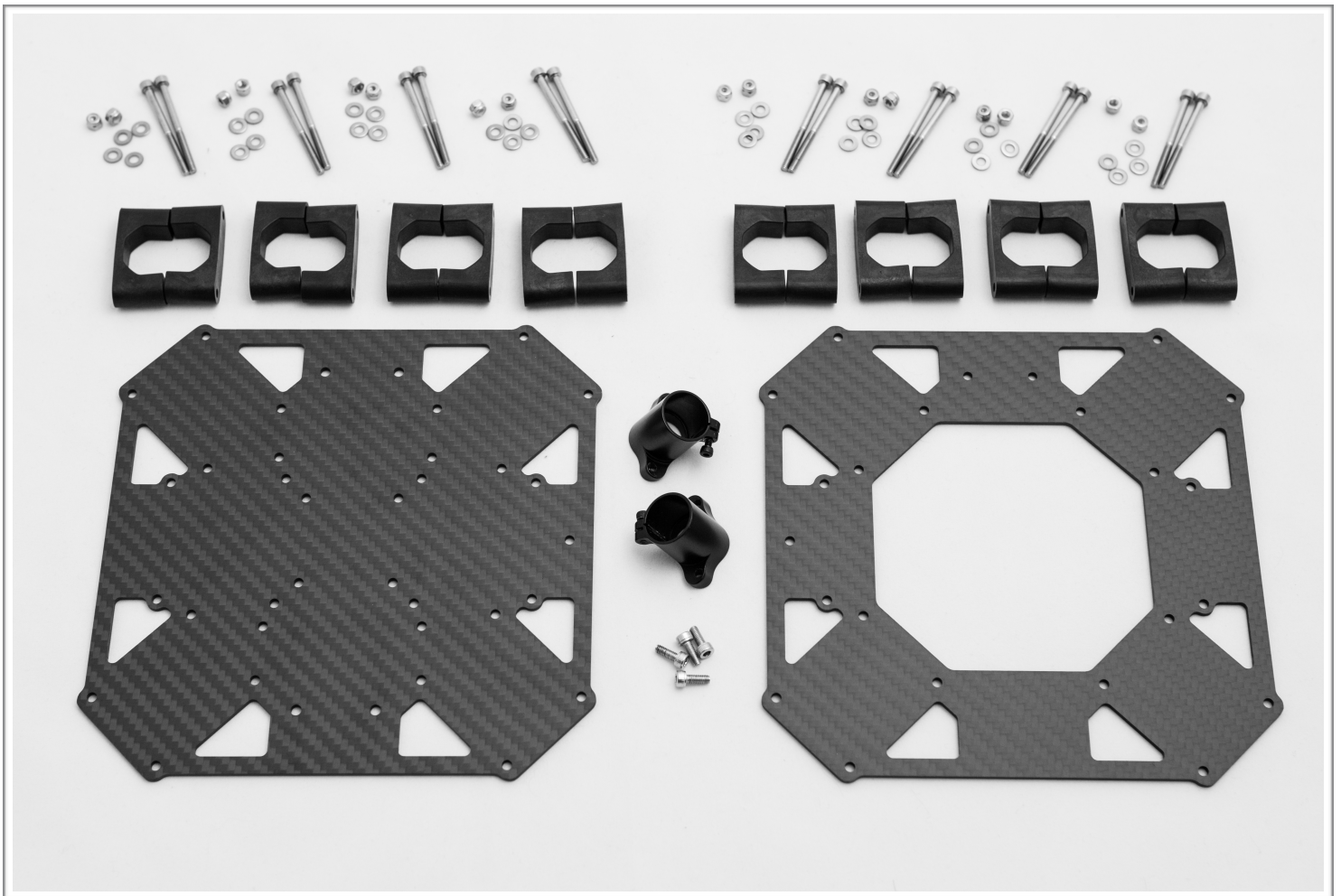
Required Tools

(not included with kit)

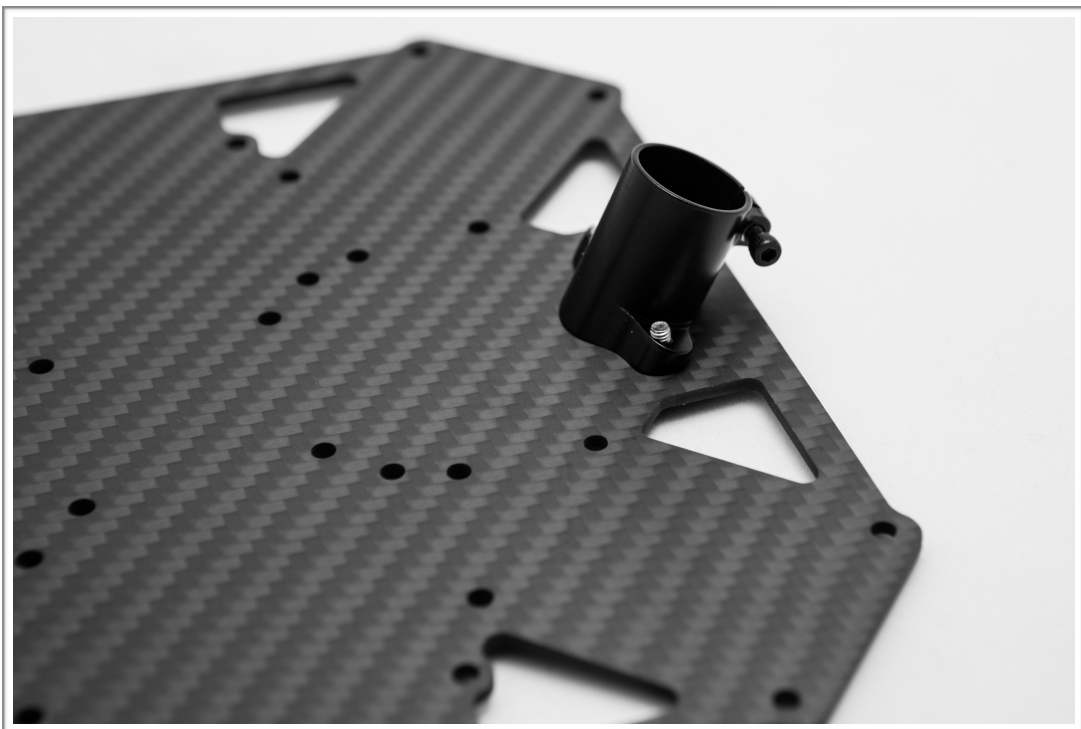
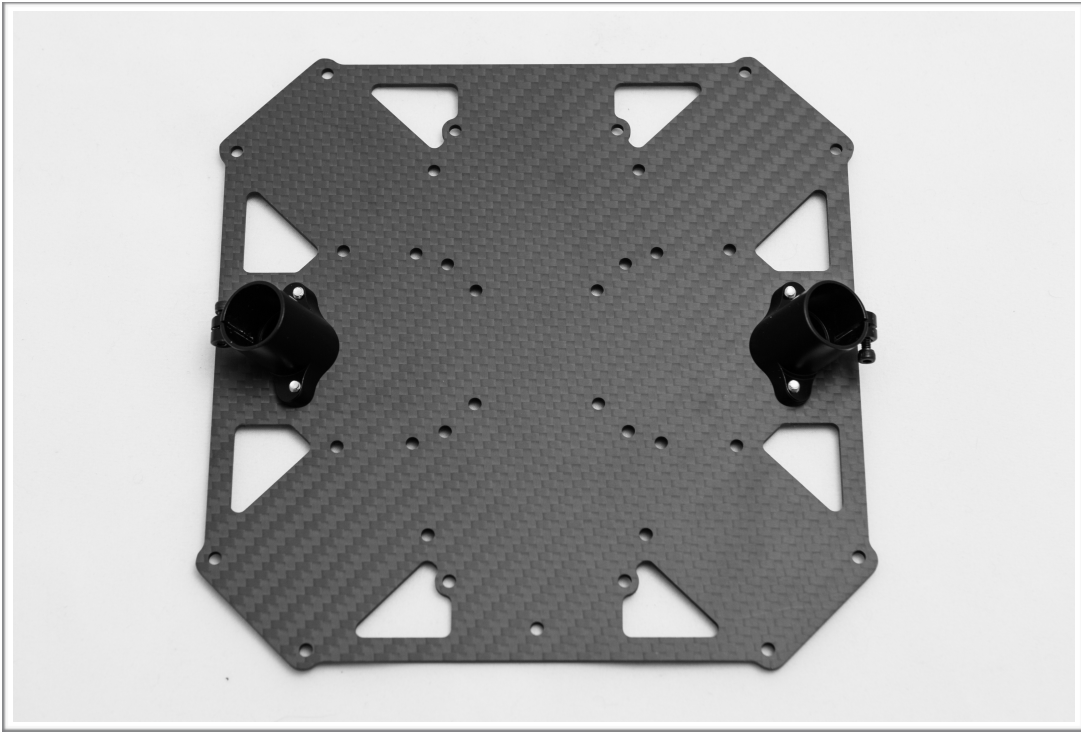
2mm Hex Driver
2.5mm Hex Driver
5.5mm Hex Socket Driver
Small Philips Head Screw Driver
Small Vice or Clamp
Needle Nose Pliers
Loctite (blue/medium)
3m Adhesive Foam (2 sided)
Heat Gun
Soldering Iron
Wire Strippers

Step 1: The Center Hub

Remove the center hub plates from the plate bag, along with 8 angled edge clamp sets, 16 M3x45mm screws, 16 nuts, 32 washers, and the 2 aluminum landing gear connectors with 4 mounting screws

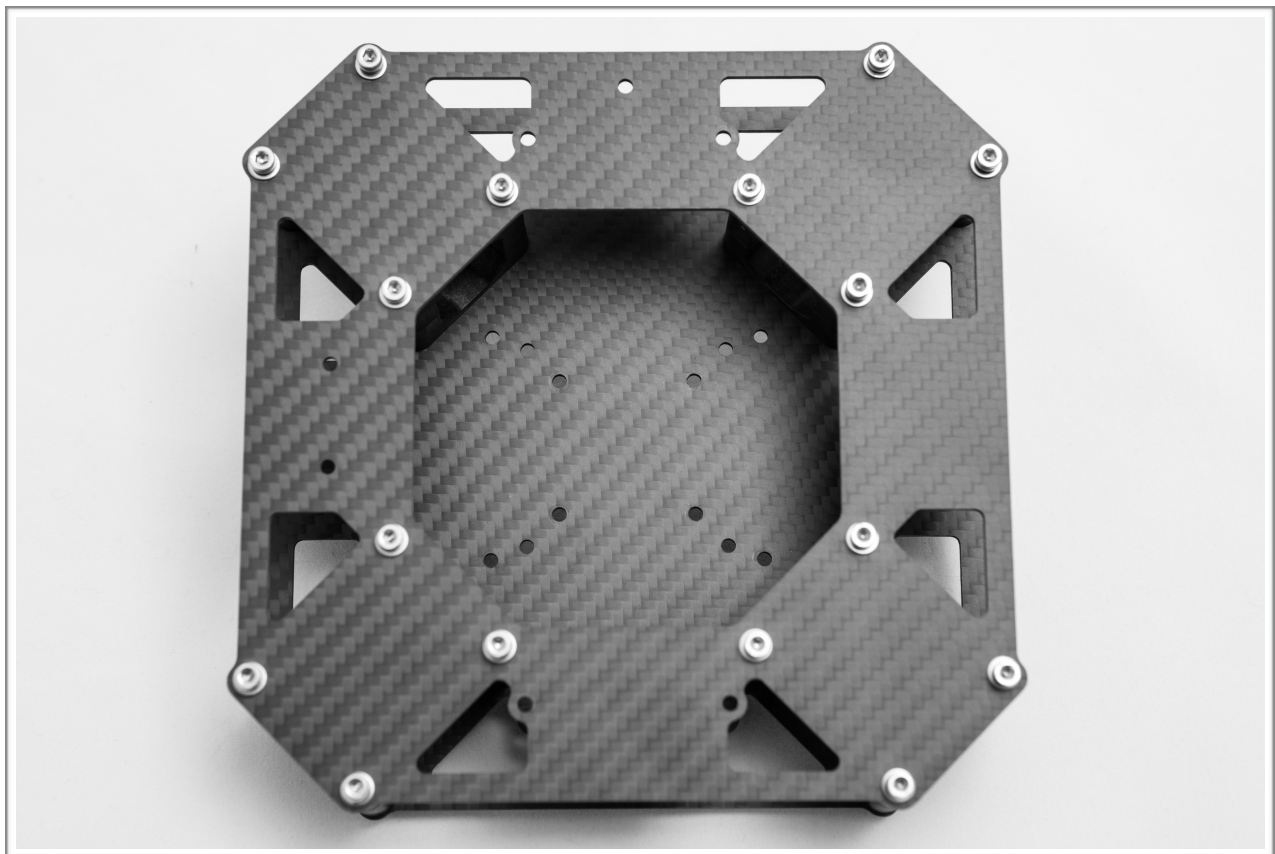


Attach the landing gear connectors to the bottom of the bottom center plate using the holes shown below.

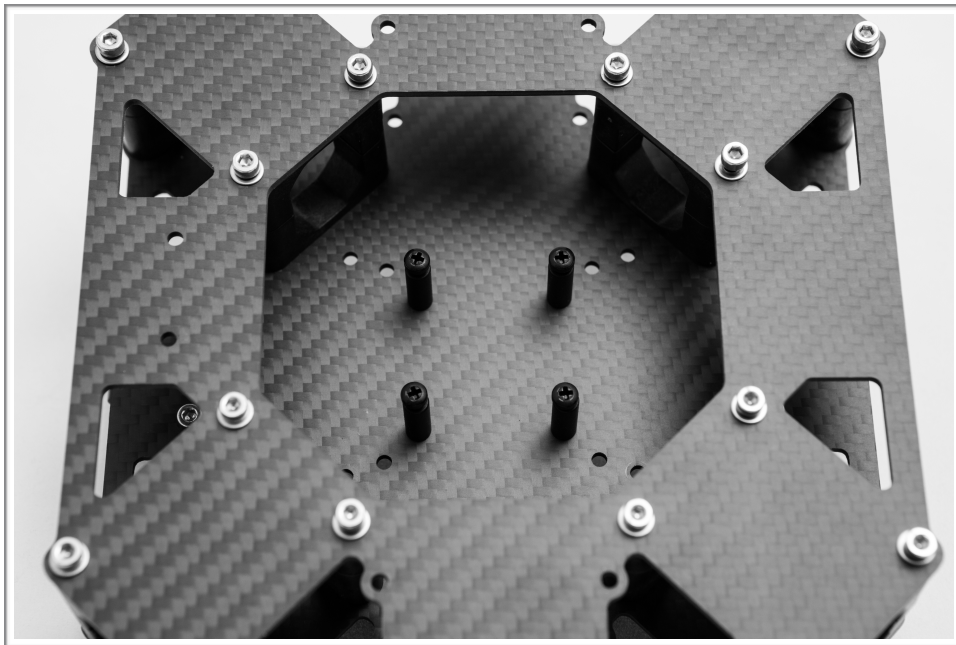
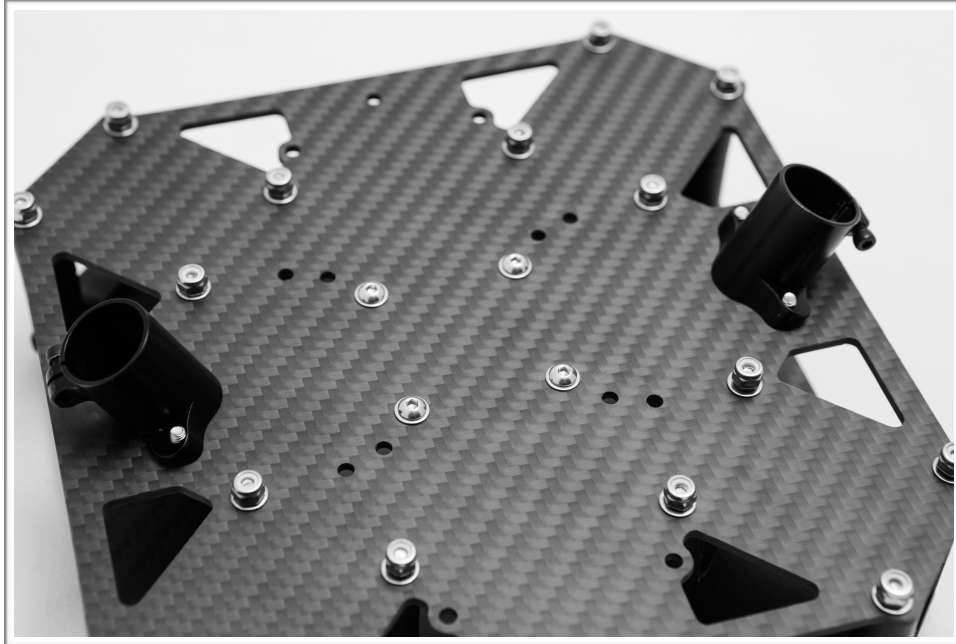


Position the top plate over the bottom plate to ensure that ALL holes are aligned. Pay close attention to the hole locations to ensure that the clamp screw holes match on both plates.

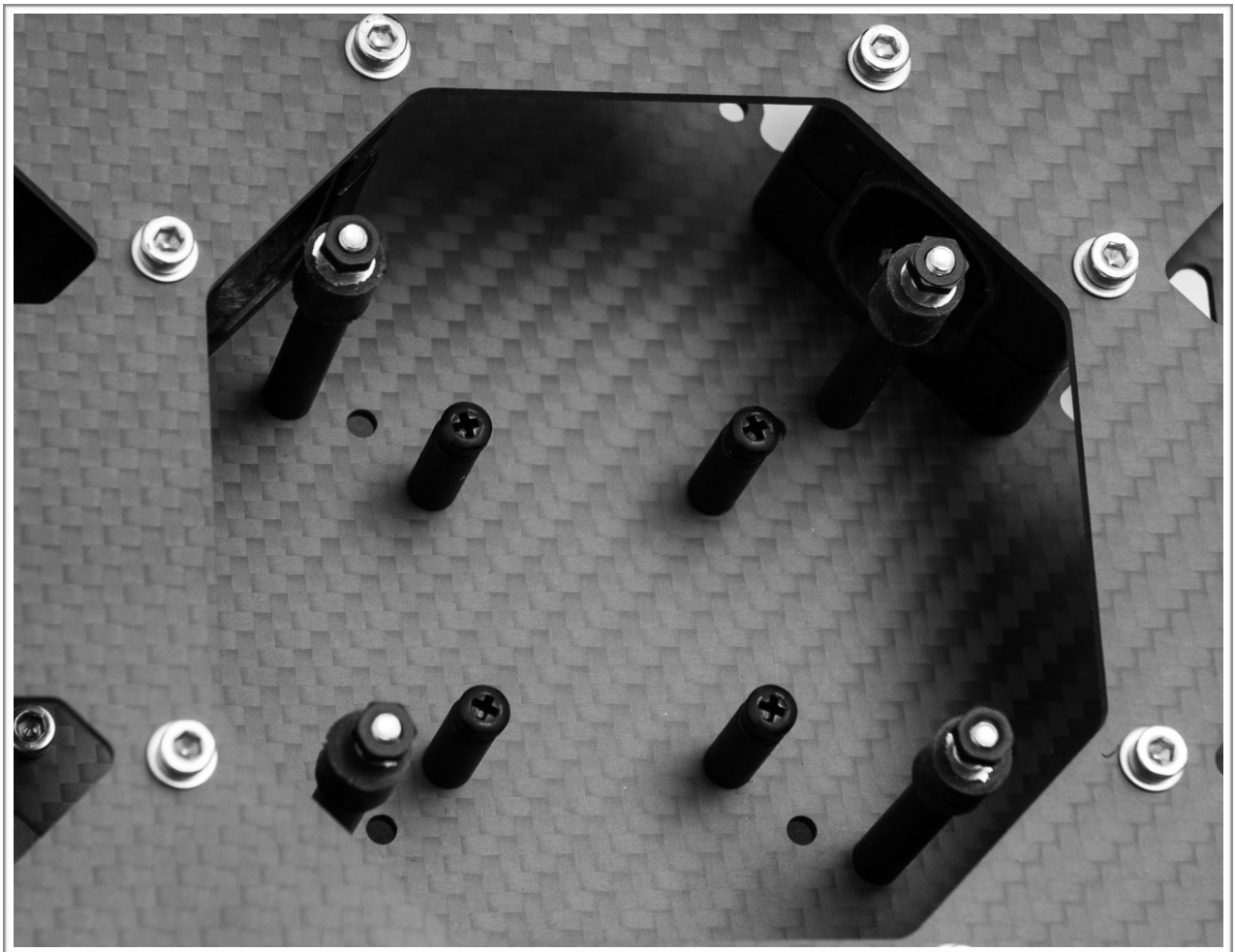
Starting with the inner clamp positions, push 2 M3x40mm screws with washer down through the top plate, through the clamp set, through the bottom plate, through another washer, and secure with lock nuts. Do this for each of the 8 clamp set holes in the center hub. Until the booms are installed, the nuts should only be hand tight.



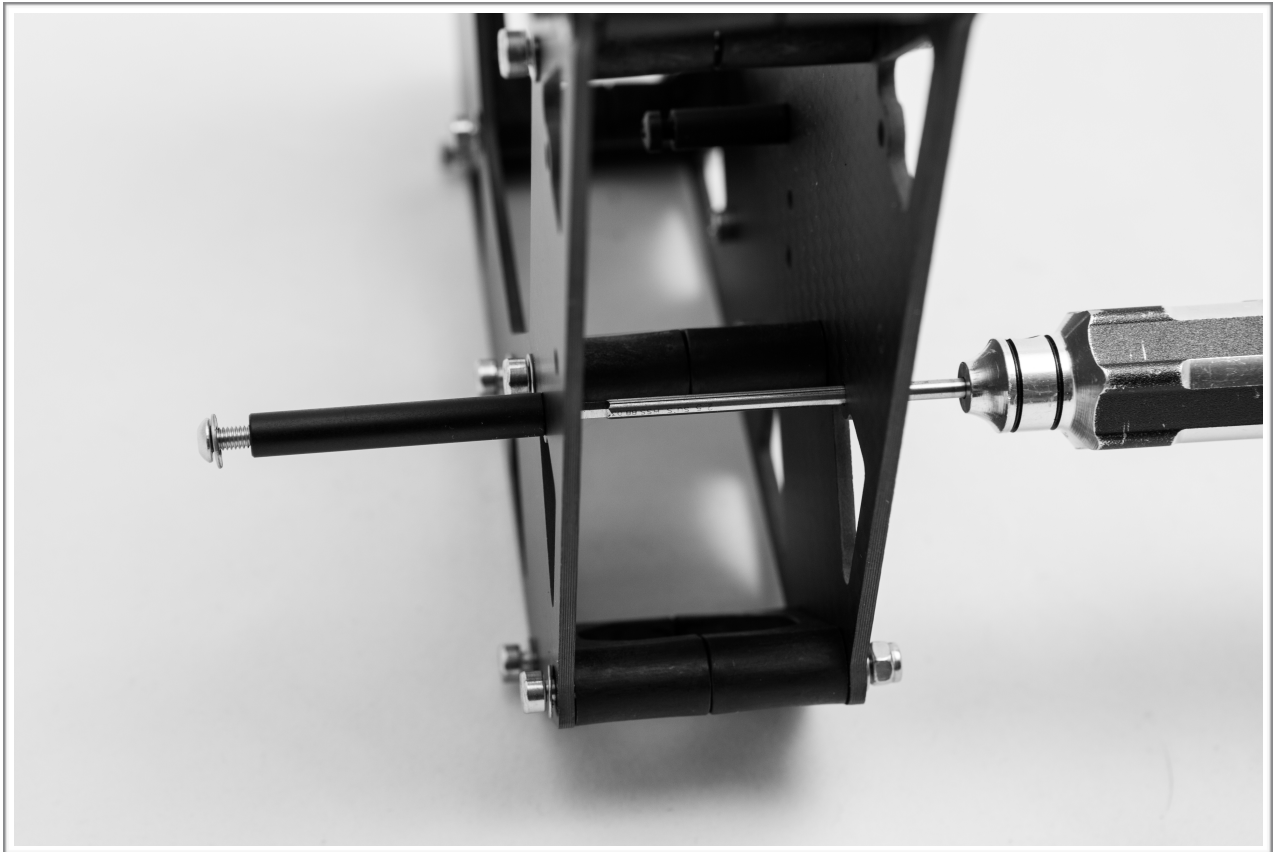
Use 4 M3x10mm screws, 4 washers, and the 4 15mm (small) aluminum spacers to install the standoffs in the inner most center holes on the bottom center hub plate for the power distribution board. Push the M3x6mm screws with washer, up through the plate, hand tighten the spacer to the screw, and then tighten again using the 2mm hex driver. Screw the nylon screws into the top of the standoffs so that you can use them later to mount the soldered power distribution board.

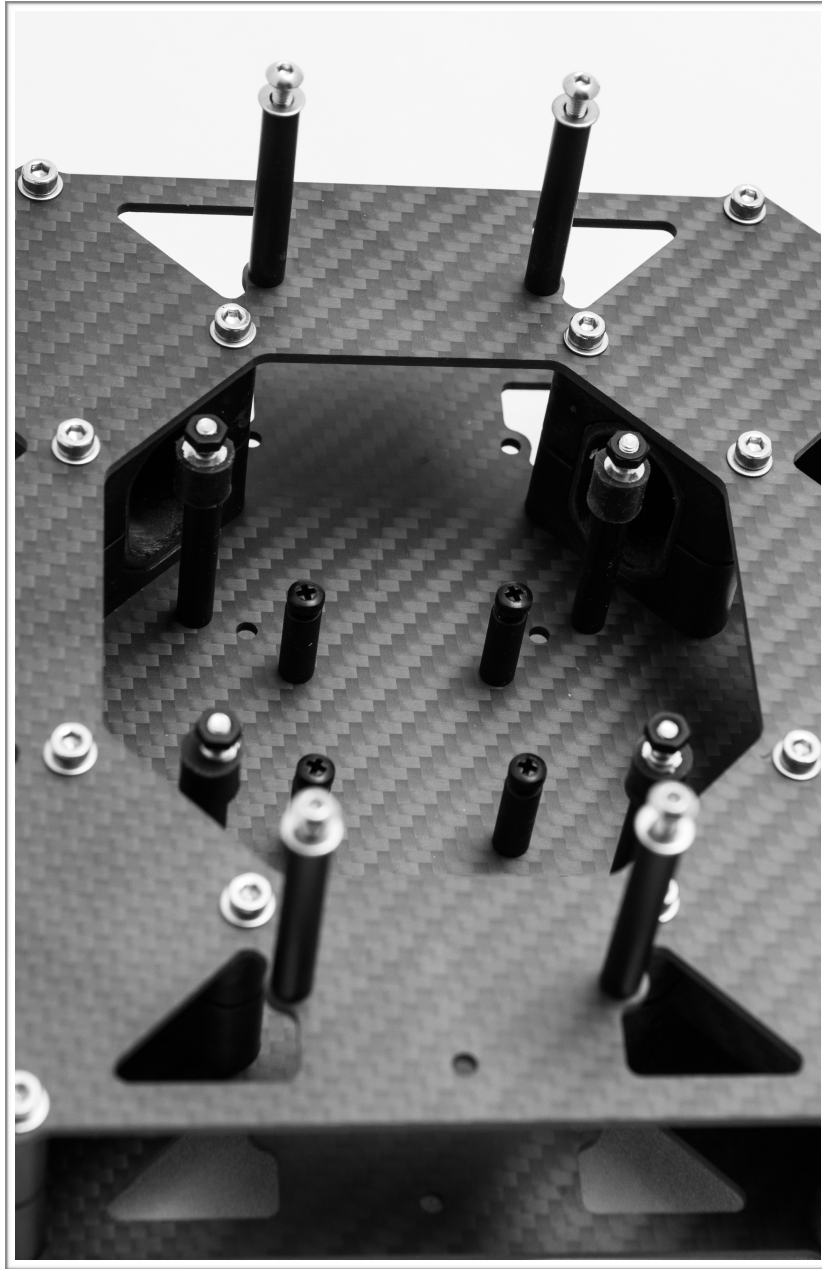


Next, use 4 more M3x10mm screws, 4 washers, the 4 rubber vibration isolators, and the 24mm (medium) aluminum spacers to create the standoffs for the flight control mounting plate. Push the M3x10mm screws with washer, up through the plate, hand tighten the spacer to the screw, and then tighten again using the 2mm hex driver. Screw the rubber isolators into the top of the medium standoffs. Screw the nylon nuts down a few threads of the isolators so that later you can mount the flight control mounting plate.



Next, use 8 more M3x6mm screws, 8 washers, and the 30mm (large) aluminum spacers to create the stand-offs for the battery tray. Using the 4 remaining open holes on the top center plate, push the M3x6mm screws with washer, up through the plate and hand tighten the spacer to the screw. Use the 2mm hex tool to come up through the bottom plate to finish tightening the screw. Repeat for all 4 holes. Screw 4 more M3x6mm screws with washers a few turns into the spacers. You will need these later when it's time to mount the battery tray.

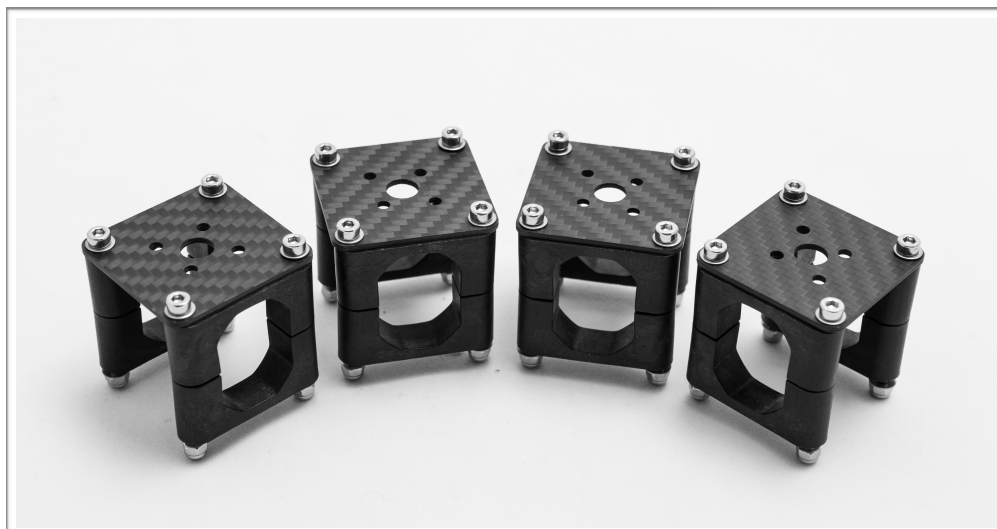
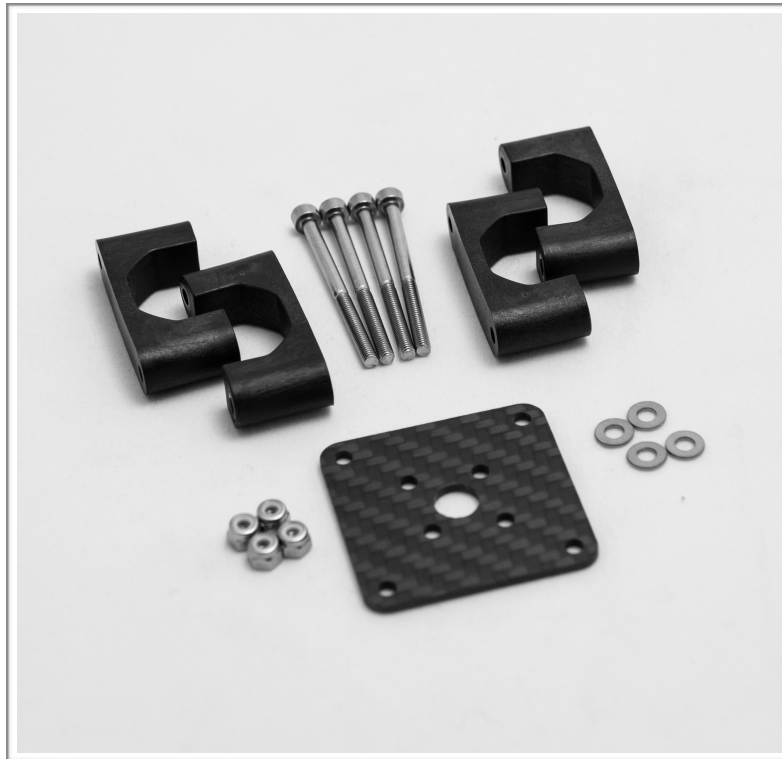




Step 2: Motor Mounting Plates

Remove the motor mounting plates from the plate bag, along with 8 plastic clamp sets, 16 M3x40mm screws, 16 nuts, and 32 washers.

Push 2 M3x40mm screws with washer, down through the top of each side of the motor mounting plate, through the clamp set and secure with a nut. Do not tighten the nuts. Until the booms are installed, the nuts should only be hand tight. Repeat this for all 4 motor mounts.



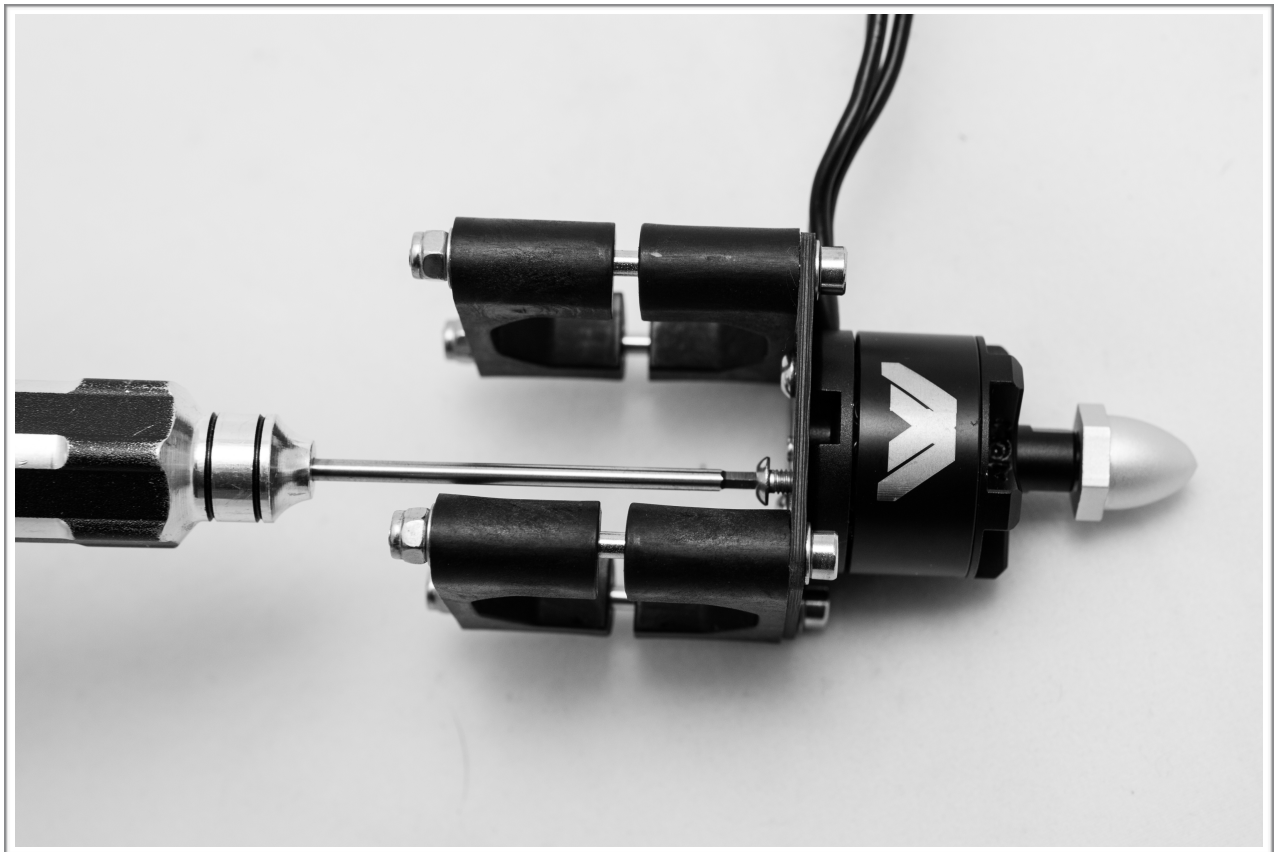
Step 3: Mounting The Motors

WARNING: USING THE BLACK CAPHEAD SCREWS PROVIDED IN YOUR MOTOR BOX IS NOT RECOMMENDED. USING THESE SCREWS CAN RESULT IN DAMAGE TO THE MOTOR AND AIRCRAFT. PLEASE ONLY USE THE PROVIDED BAGGED M3X6MM SILVER BUTTONHEAD SCREWS + WASHERS WHEN INSTALLING THE MOTORS ON THE QUADZILLA MOTOR PLATES. IF YOU USE OTHER SCREWS WITH YOUR MOTORS, PLEASE ENSURE THAT YOU HAVE THE PROPER CLEARANCE INSIDE THE MOTORS (WATCH THE WINDINGS) ONCE THE SCREWS ARE COMPLETELY TIGHTENED.

Using the provided Mid-Atlantic 2212 motors, 16 M3x5mm screws, 16 washers, and Blue/Medium Loctite, use the steps below to mount the motors to the motor mounts.

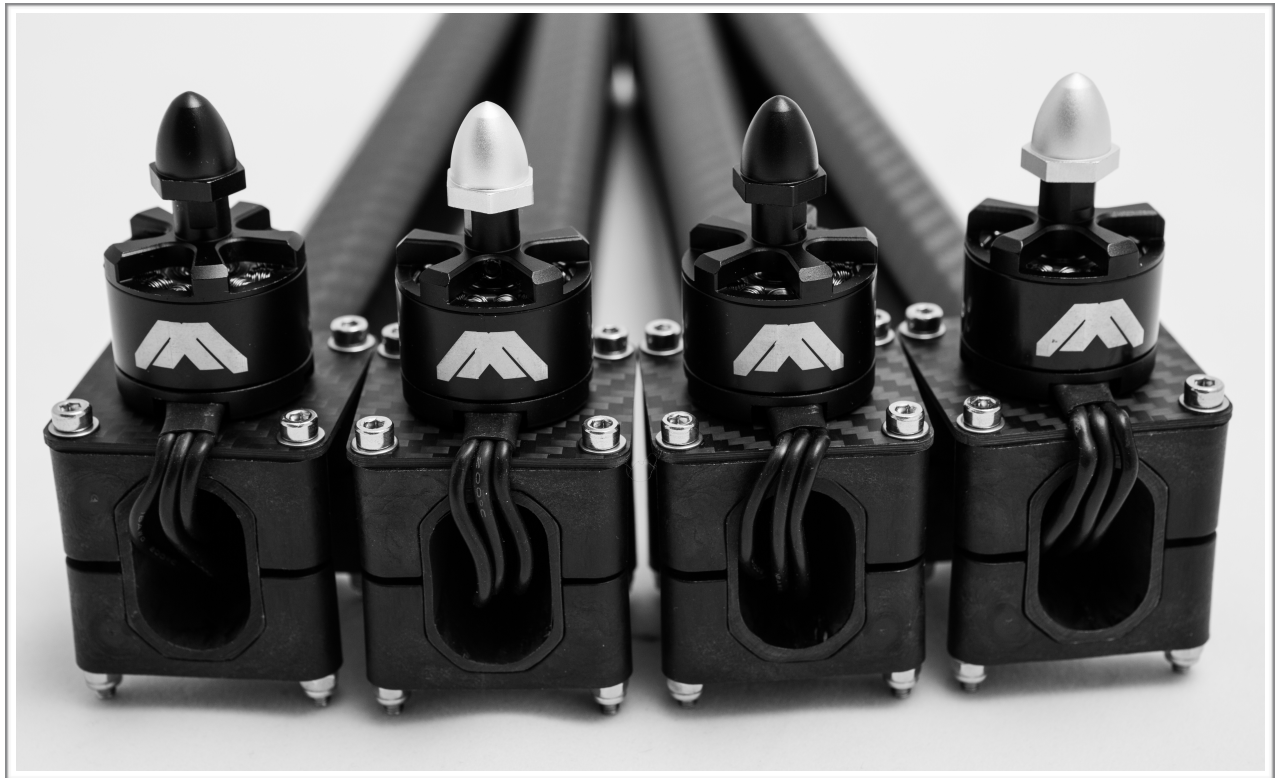
Pre-load the washers to the M3x5mm screws. Line up the holes in the motor mount with the holes in the motor. Load a screw/washer on to the 2mm hex tool and add a small drop of Loctite to the threads of the screw. Push the screw through the bottom of the motor mount plate, into the motor and tighten.

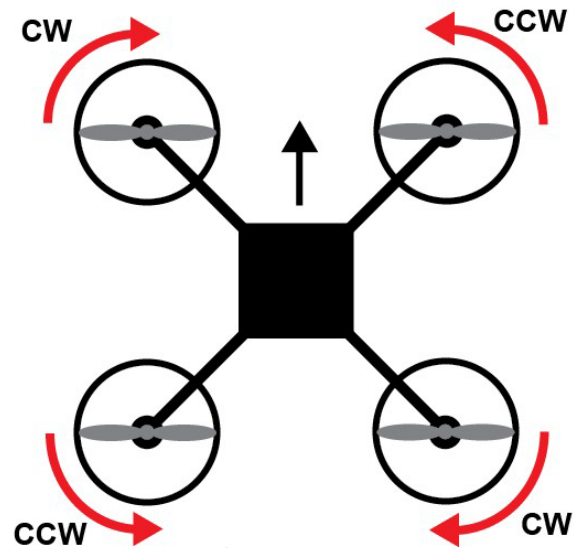
Loctite should be allowed 24 hours to set before your first flight.



Remove the 4 boom tubes from their bags. Slip the partially assembled motor mounting plates on one end of the boom. Tighten the screws enough that the mounting plate assemblies are semi-tight, but still able to slide on the tube.

When tightening the mounts to the tube, tighten each side of the clamp little by little until the mount is snug to the boom tube. This will allow for the mount to sit flush and the clamps to close properly on the tube.





Proper motor orientation is crucial to your aircraft flying properly. For this step, you will need to be sure that the correct motor is mounted in the correct position. Silver cap motors turn counter-clockwise (CCW) and black cap motors turn clockwise (CW). Since the battery plate will run front to back on the center hub, we'll use 2 of the standoff as a reference between front and back. Position the center hub so that 2 of the battery plate standoffs are close to you and the other 2 are away from you and insert the CCW boom + motor into the clamp sets on the right and the CW boom + motor into the clamp sets on the left. Semi-tighten the clamps to hold the boom in place. On the opposite side of the center hub, mount the other 2 booms, making sure that the similar motors are diagonal from each other.

When inserting the boom tubes into the clamps of the center hub, ensure that the ends of the booms are flush with the inner edge of the inside clamps. Tighten the screws enough that the mounting plate assemblies are semi-tight, but still able to twist with your hands. It is important to keep these booms loose so that the motors can be leveled at the end of the build. Repeat this for all 4 booms.

Keep in mind that the clamps on the entire frame must be tightened evenly so that the frame plates and motor mounts are as straight as possible. This can be achieved by tightening each side of each clamp little by little.

Step 4: Landing Gear

Remove one landing gear half from the landing gear bag. The photo below shows all hardware supplied for the landing gear..



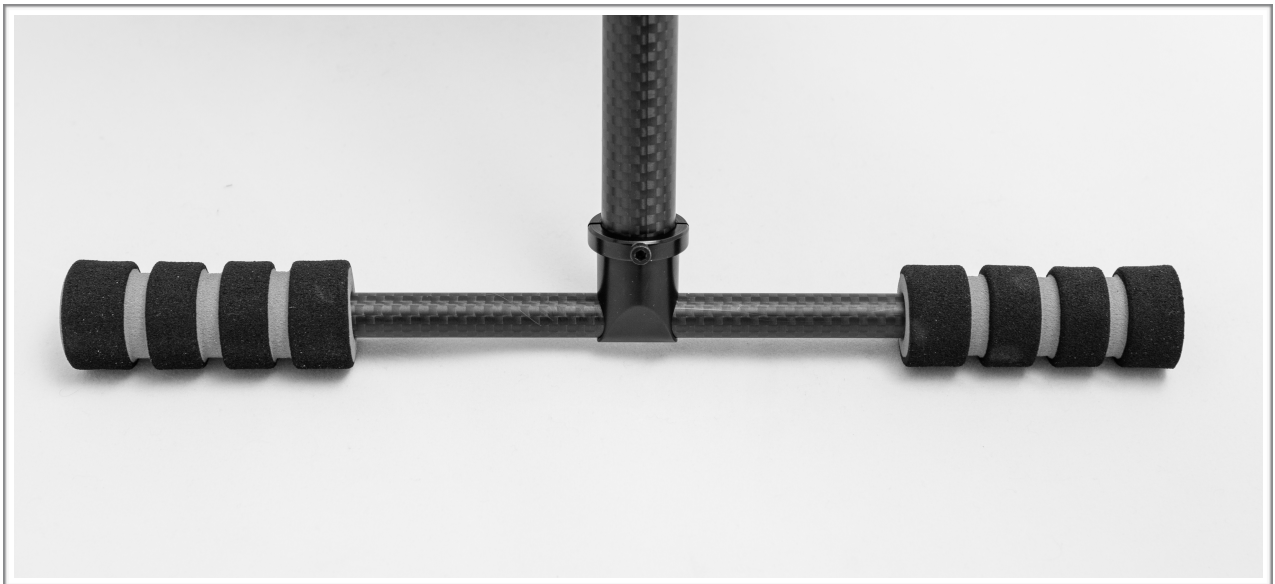
Load the landing gear down tubes into the the aluminum connector that you installed to the bottom center plate in the previous steps. Use the smallest screws in the pre-drilled, threaded holes to secure each landing gear leg. Leave this screw somewhat loose so that you can move the landing leg so that the pre-drilled hole will match up with the aluminum “T” connector to attach the landing skids in the next step.



Connect one aluminum “T” joint to the bottom of the landing gear down tube using the longest screw provided in the landing gear kit. As you tighten the screw, the aluminum piece will tighten against the landing skid, preventing it from sliding fore and aft.

Slide the tip pads on to the skids. Repeat for the other landing gear half.

Tighten all screws on the landing gear. This step is now complete.





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Maintenance Records

DATE	MAINTENANCE PERFORMED	INITIALS

Notes