

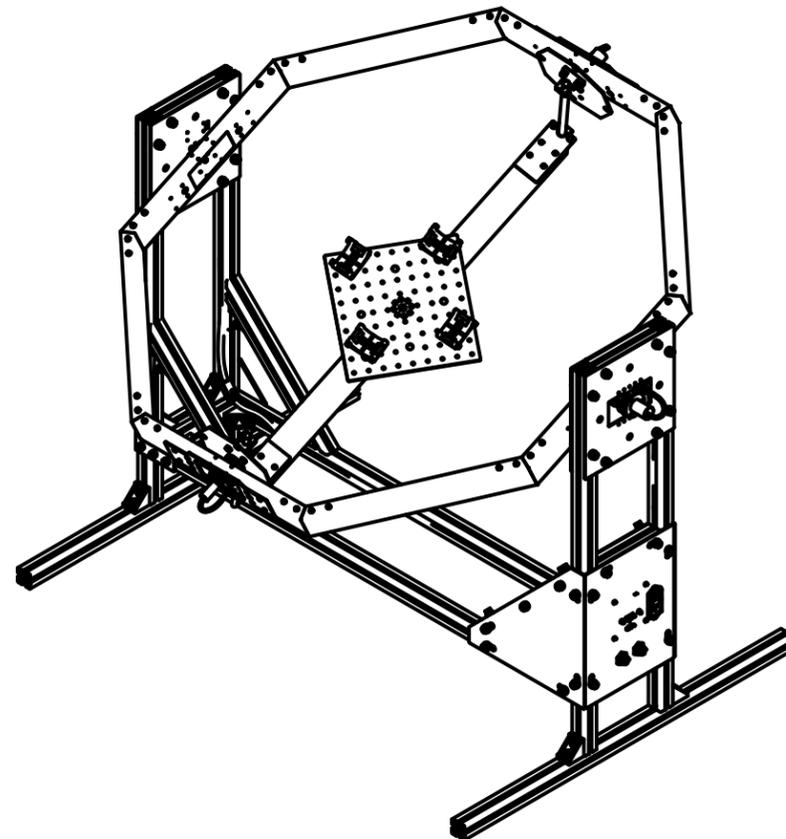


FFT GYRO G4.0

ASSEMBLY GUIDE

COMPATIBLE WITH SIZES FROM 250 TO 800

IMPORTANT TO RETAIN FOR FUTURE REFERENCE: READ CAREFULLY.



INTRODUCTION

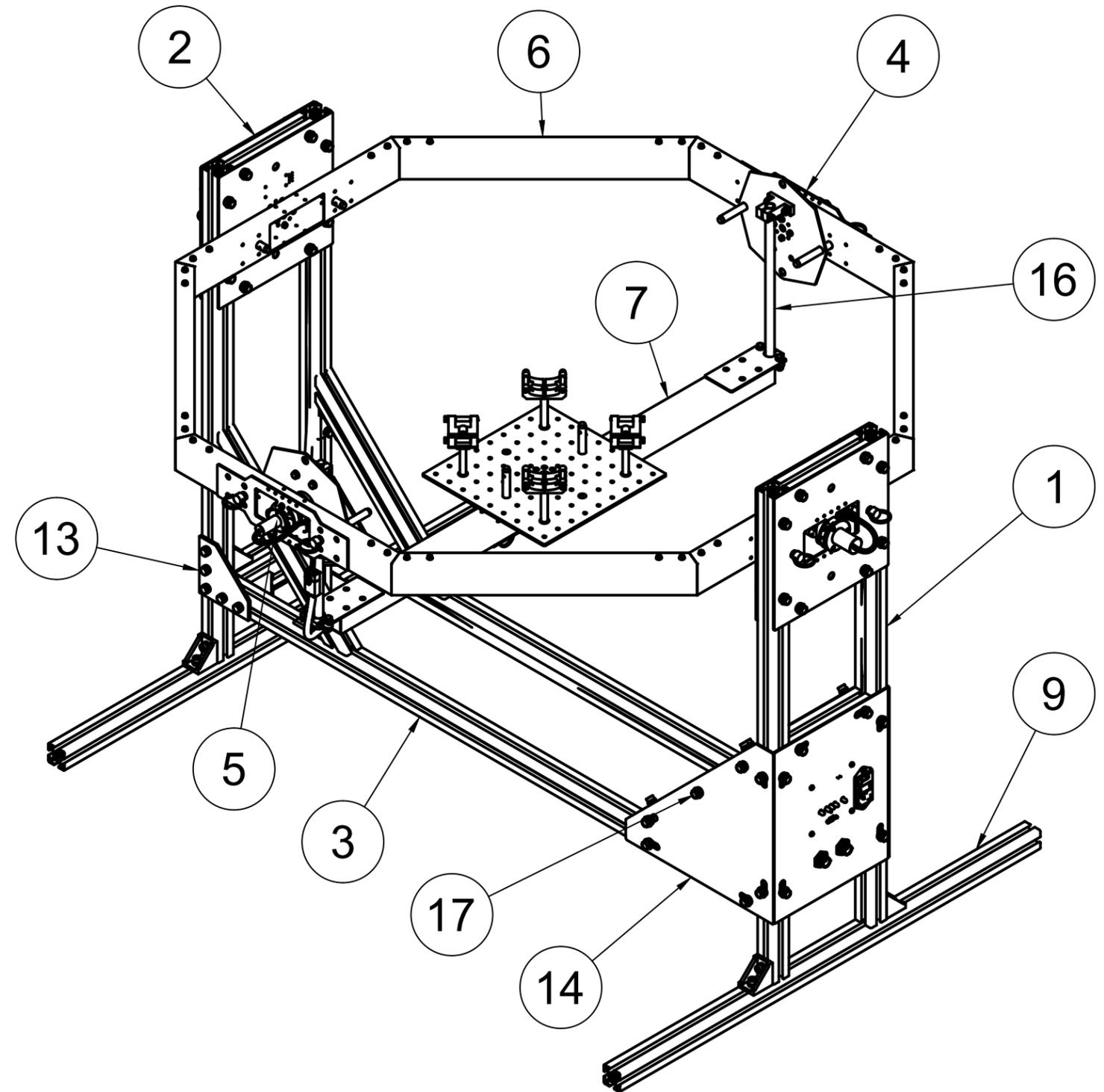
This is a step by step guide to assemble the FFT GYRO G4.0 for the following sizes: 250, 450, 600, and 800.

This guide covers the assembly process, verification of gimbal rotation, options for customizable extra yaw plates, and motor kit installation steps (purchased separately).

If you prefer, you may scan the following QR code to see the assembly video:



Scan this QR code to see the assembly video.

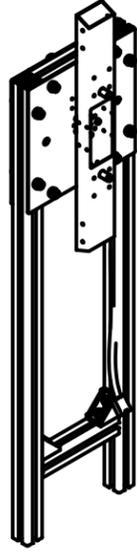


Final assembly view with identified components.

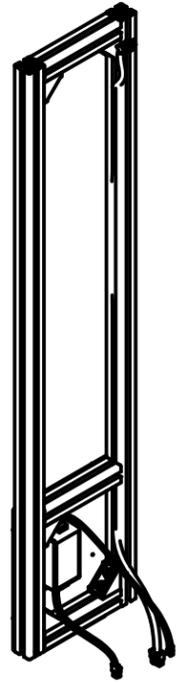
PARTS LIST



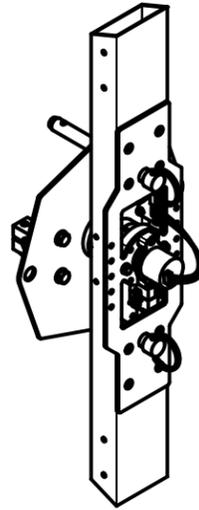
1. Right Base X1



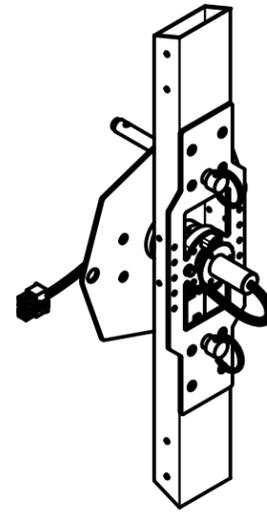
2. Left Base X1



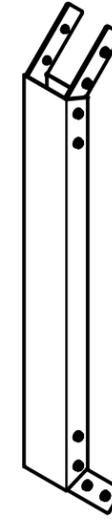
3. Bottom Base X1



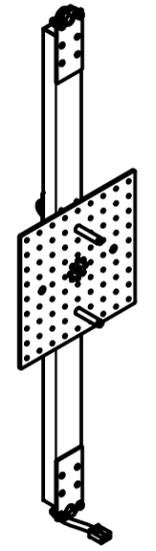
4. Pitch Encoder X1



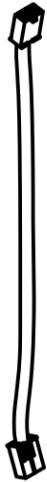
5. Pitch Slip Ring X1



6. Pitch Tube X4



7. Roll X1



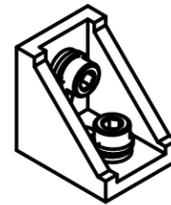
8. Wire Connector X2



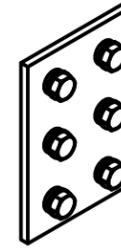
9. Legs X2



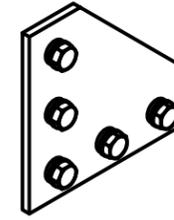
10. Angle Support X2



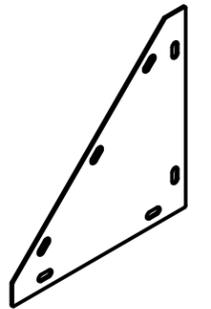
11. Corner Bracket X2



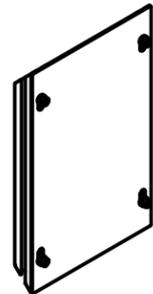
12. 6-Hole Bracket X1



13. L Bracket X2



14. Side Plate X2



15. Diagonal Plate X1



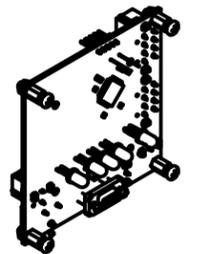
16. Sliding Tube X2



17. Black T-Nut Screw X16

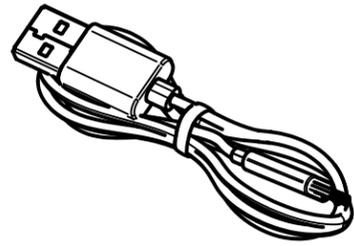


18. Wire Bridge X2

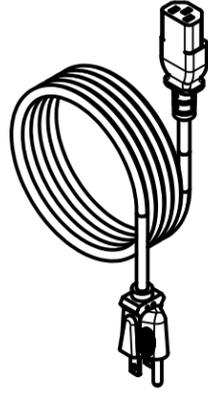


19. Main Board X1

PARTS LIST



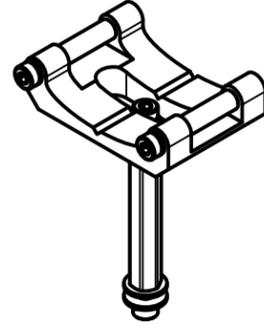
20. USB Cable X1



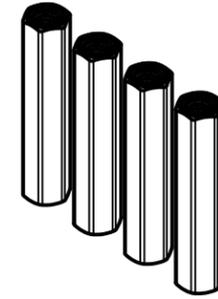
21. Power Cord X1



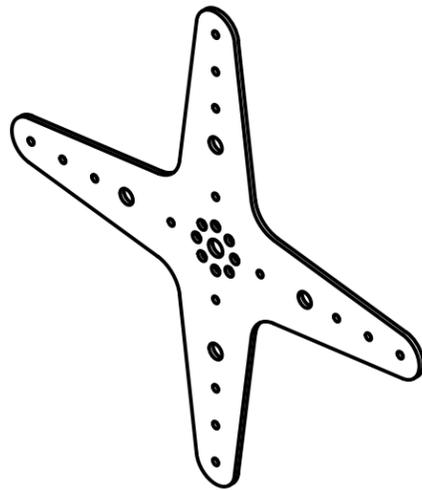
22. Allen Keys X5



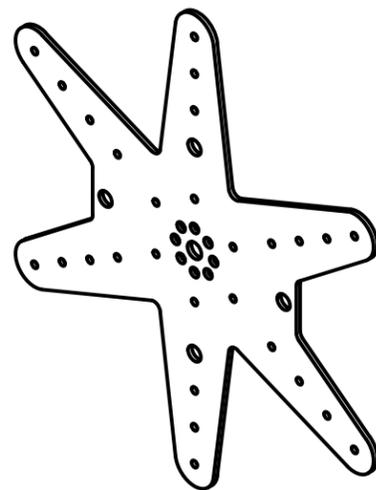
23. Grips X4



24. Extra Standoffs X4



25. Quad Plate X1

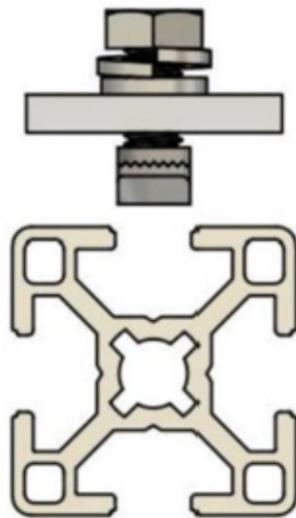


26. Hexa Plate X1

Before you begin...

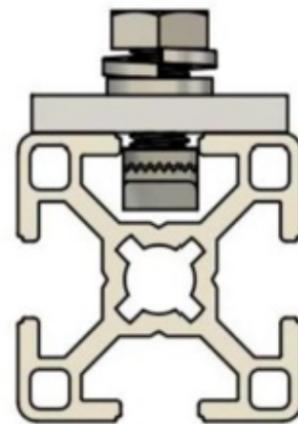
Please consider the following while assembling the structure.

WARNING: The use of power tools may damage the fasteners.



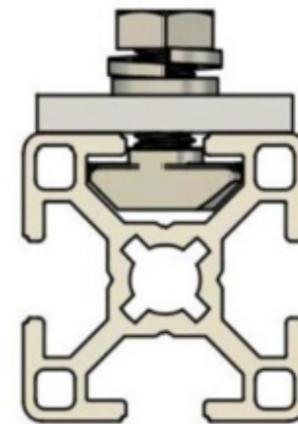
Align

Make sure the T-Nut is aligned to fit the slot.



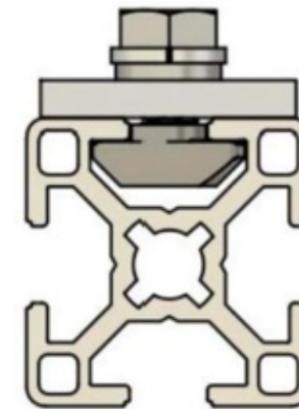
Drop In

Drop into the slot.



Lock In

Make sure the T-Nut turns as it locks into the aluminum profile, while slightly tightening the bolt.



Tighten

Once all the parts are aligned, tighten the bolts using a hex wrench.

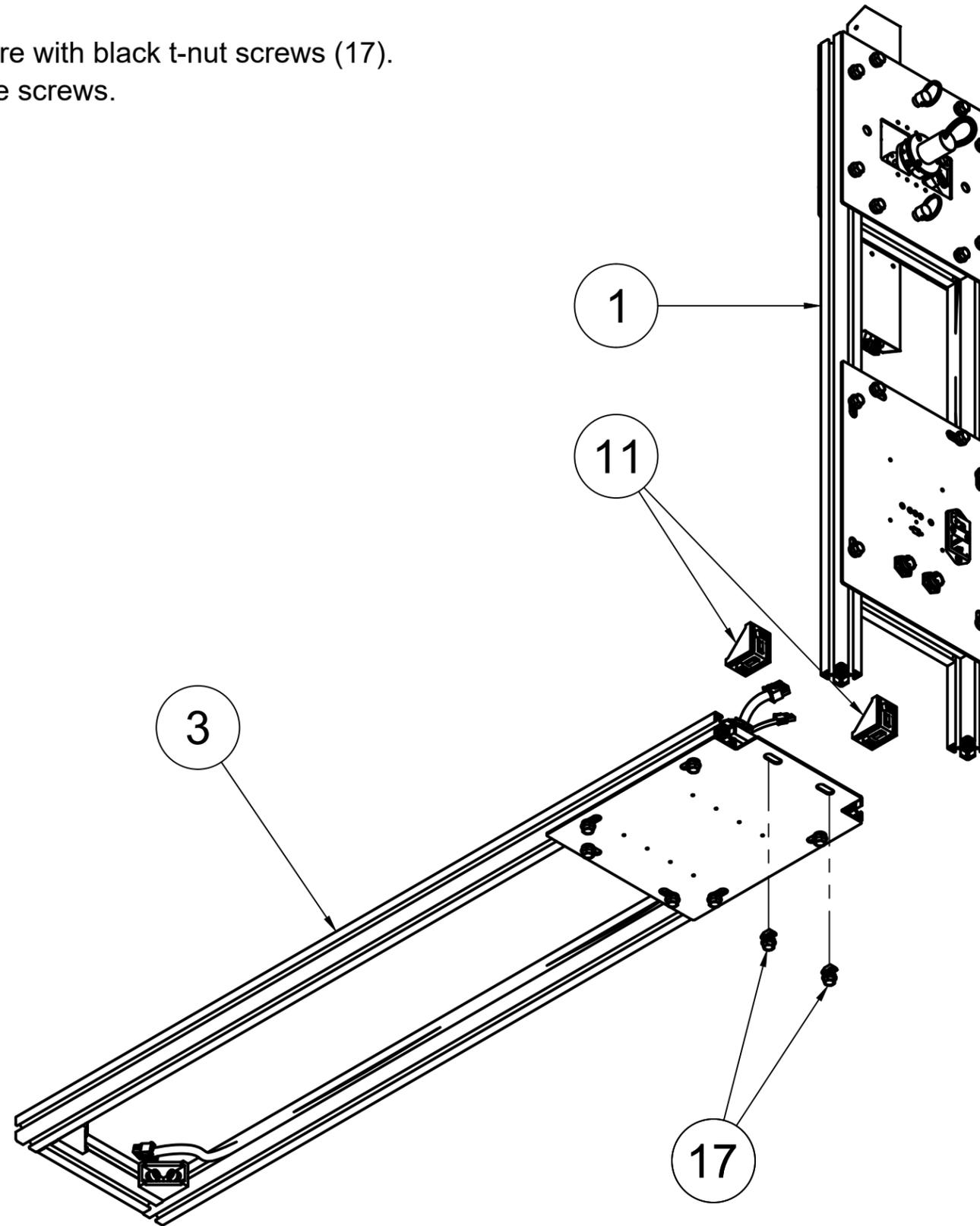
Step 1

Align right base (1) to bottom base (3) and secure with black t-nut screws (17). Then lock-in corner brackets (11). Tighten all the screws.

Tools required for this step:

- Allen key 4 mm (included).
- Hex wrench 10 mm (not included).

Note: Make sure bases are assembled at 90°.



Step 2

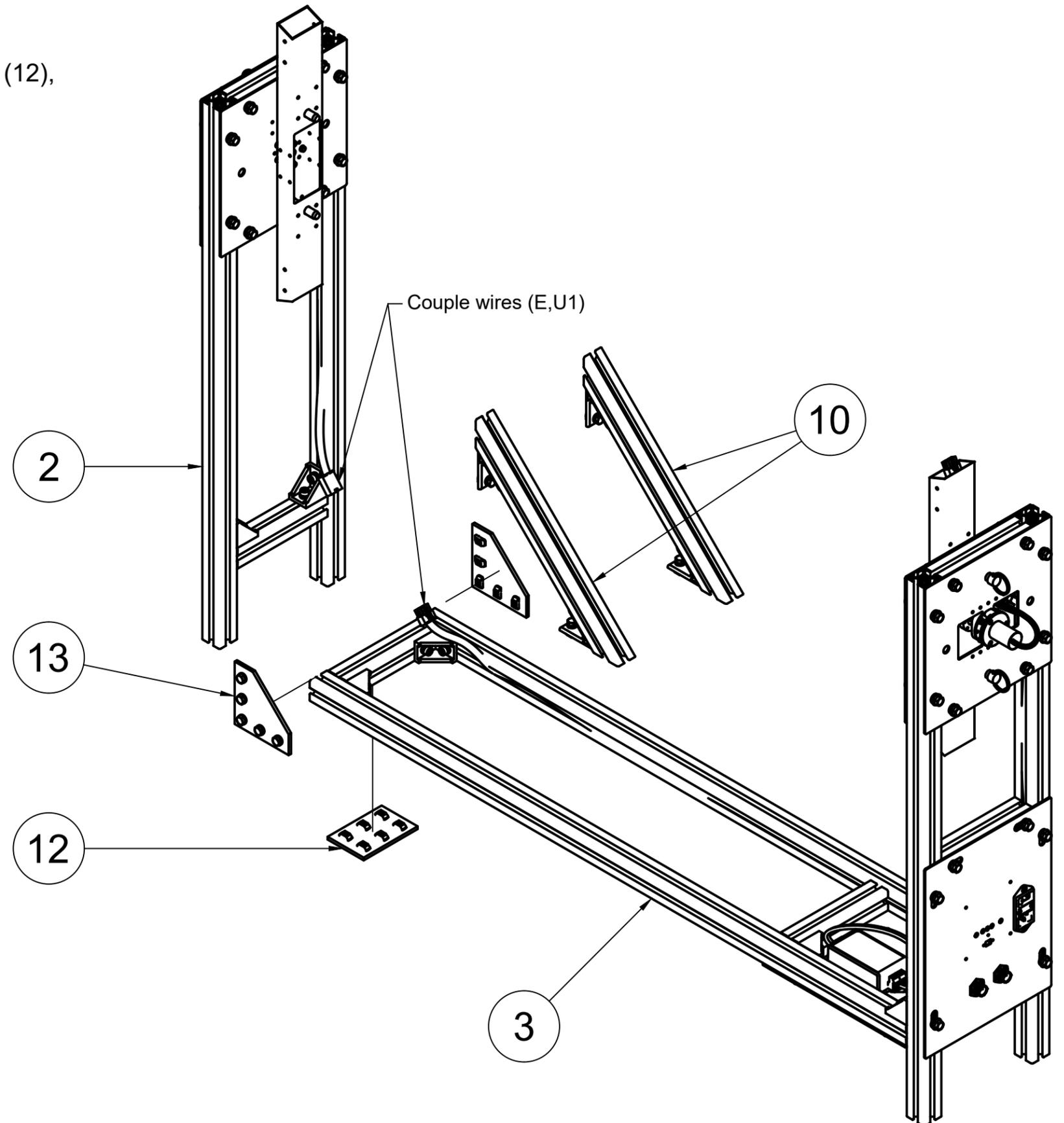
Align left base (2) to bottom base (3). Secure with 6-hole bracket (12), L brackets (13), and angle supports (10). Tighten all the screws.

Couple wires tagged as E,U1.

Tools required for this step:

- Hex wrench 10 mm (not included).

Note: Make sure bases are assembled at 90°.

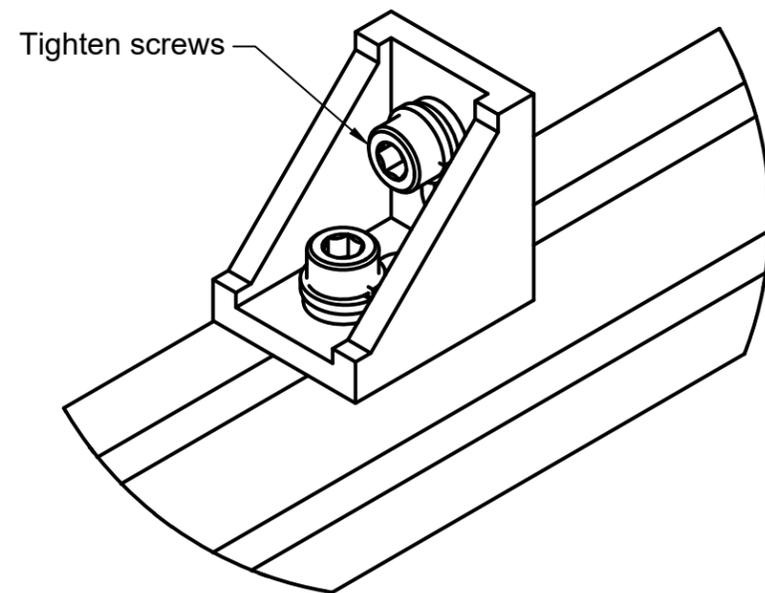


Step 3

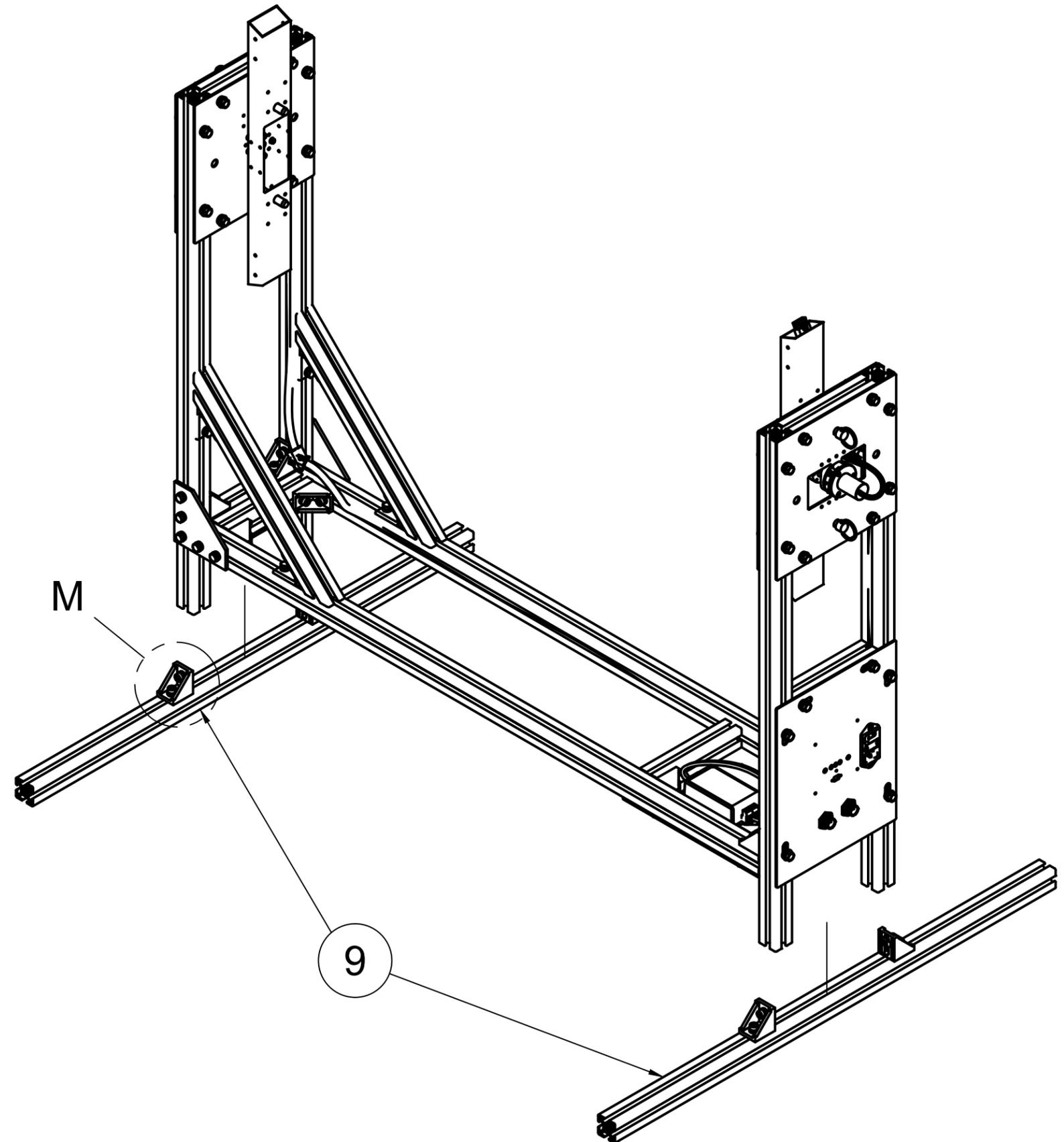
Align legs (9) and tighten all the screws.

Tools required for this step:

- Allen key 4 mm (included).



DETAIL M

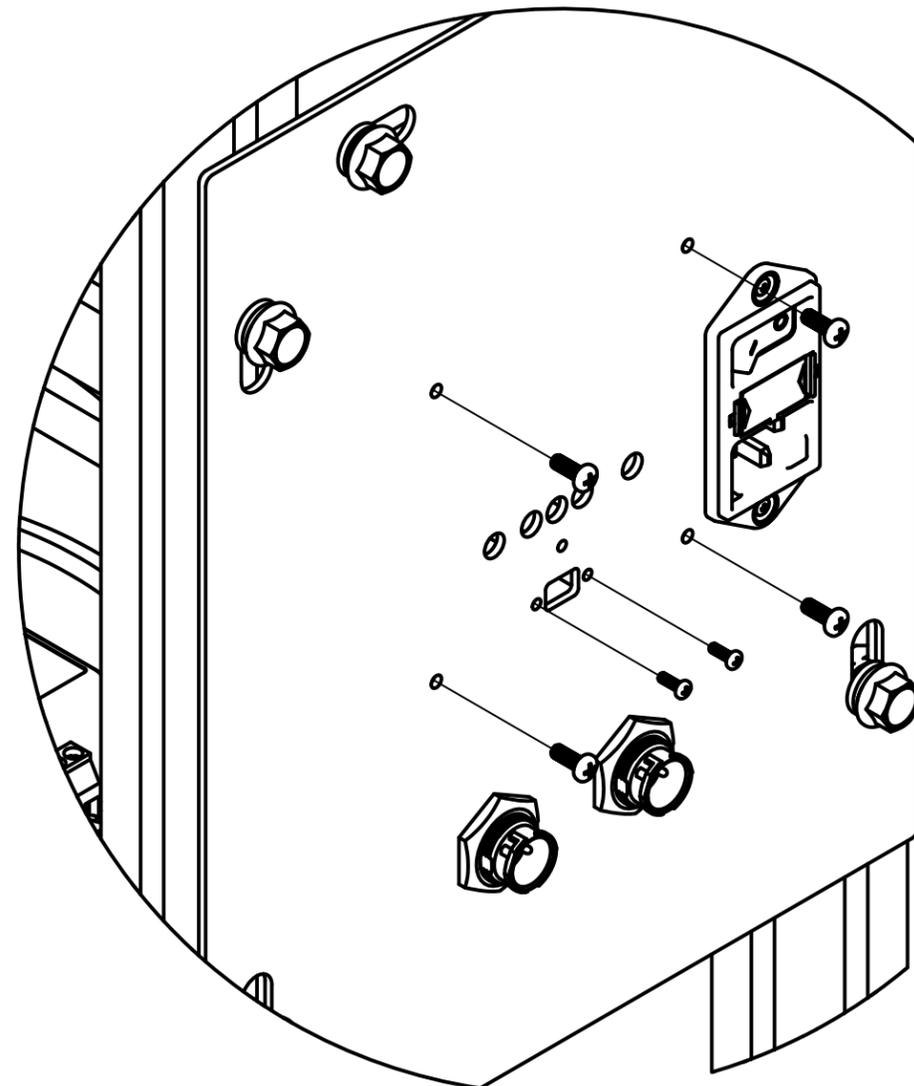
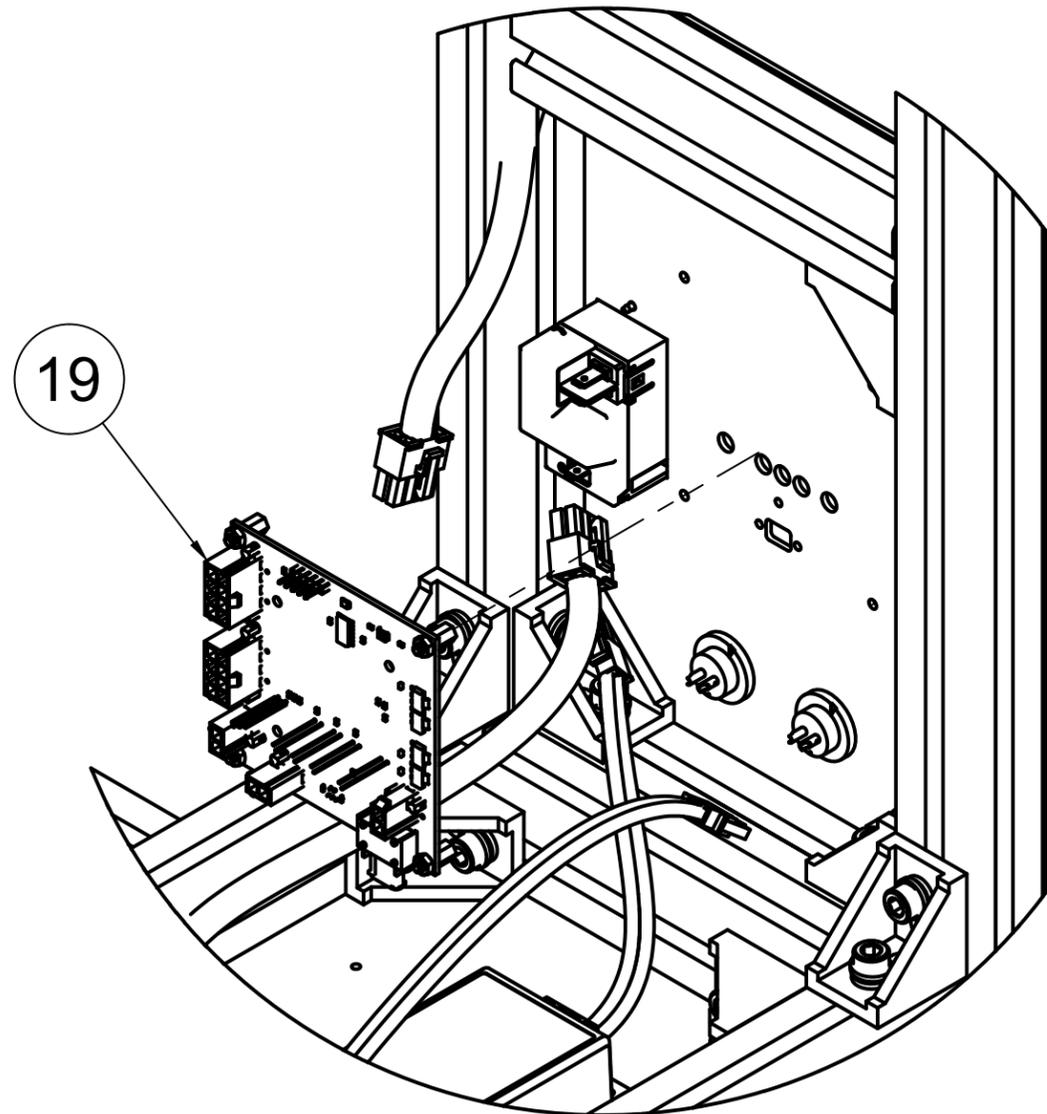


Step 4

Attach main board (19) to front panel and secure with screws.

Tools required for this step:

- Phillips head screwdriver (not included).



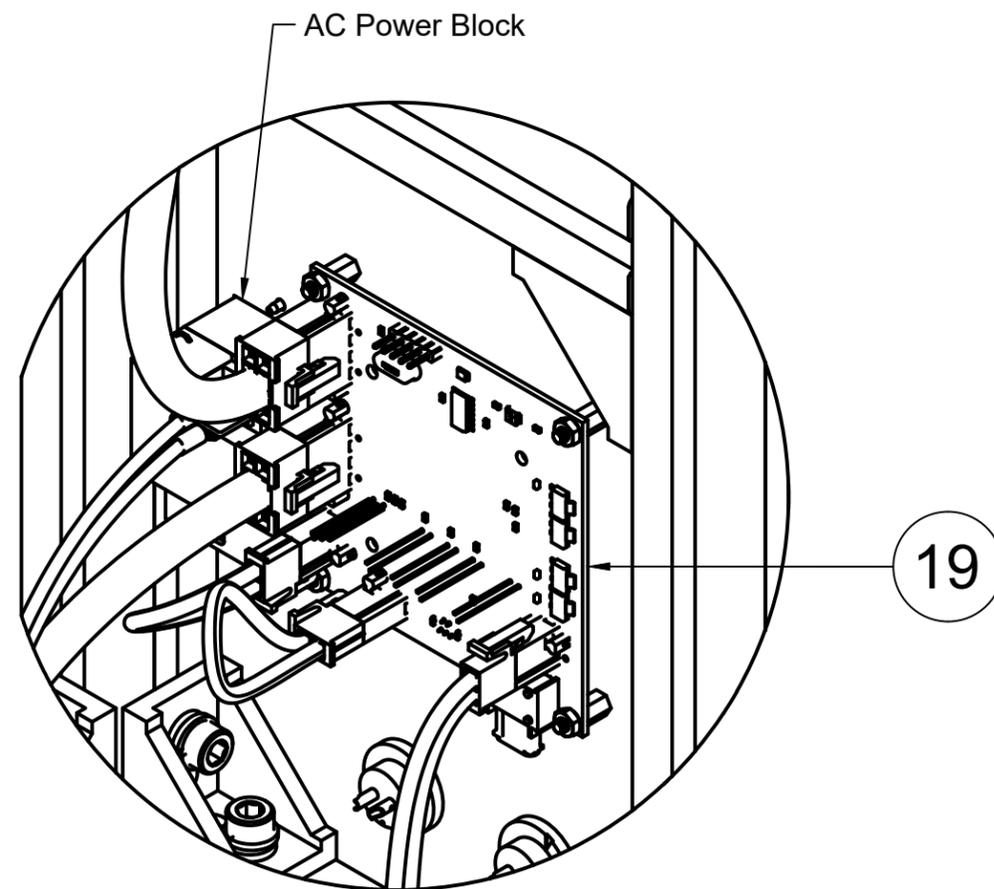
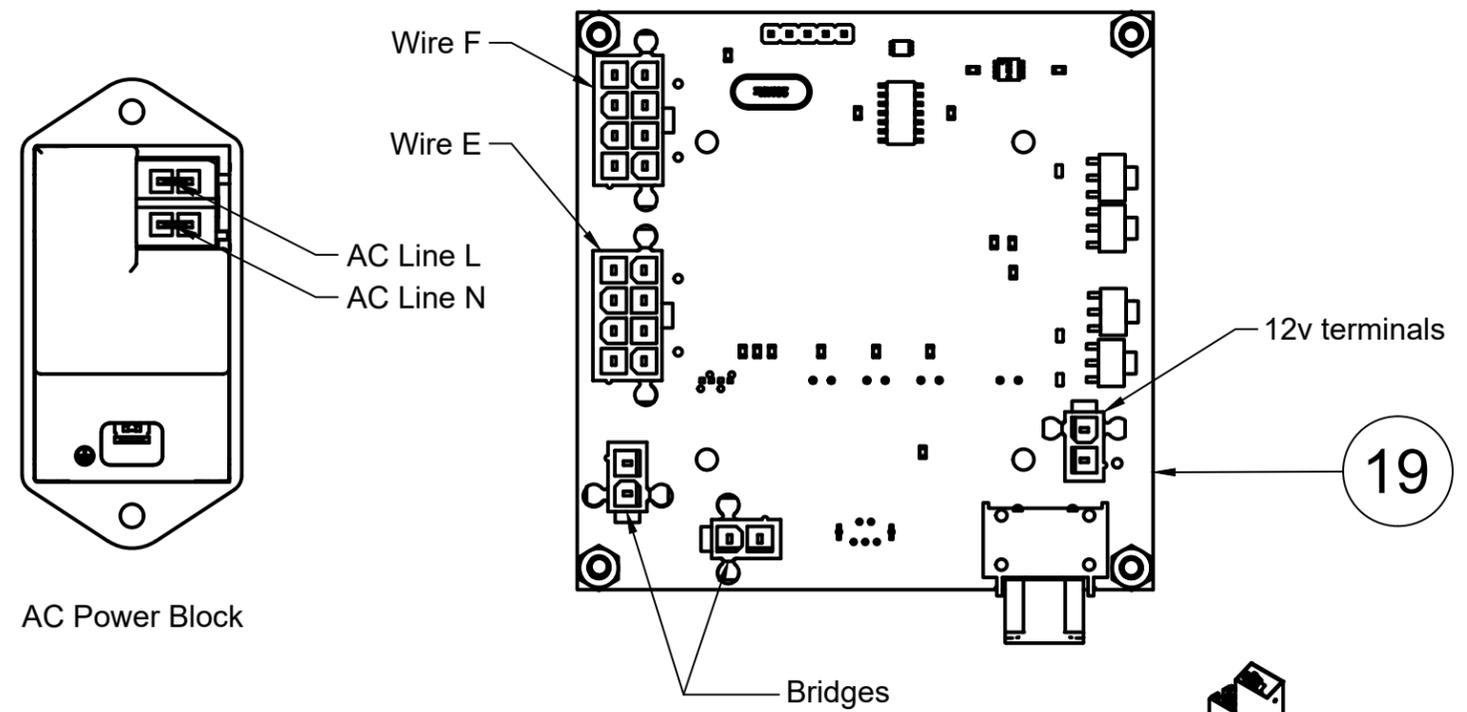
Step 5

Connect the following wires to the main board (19):

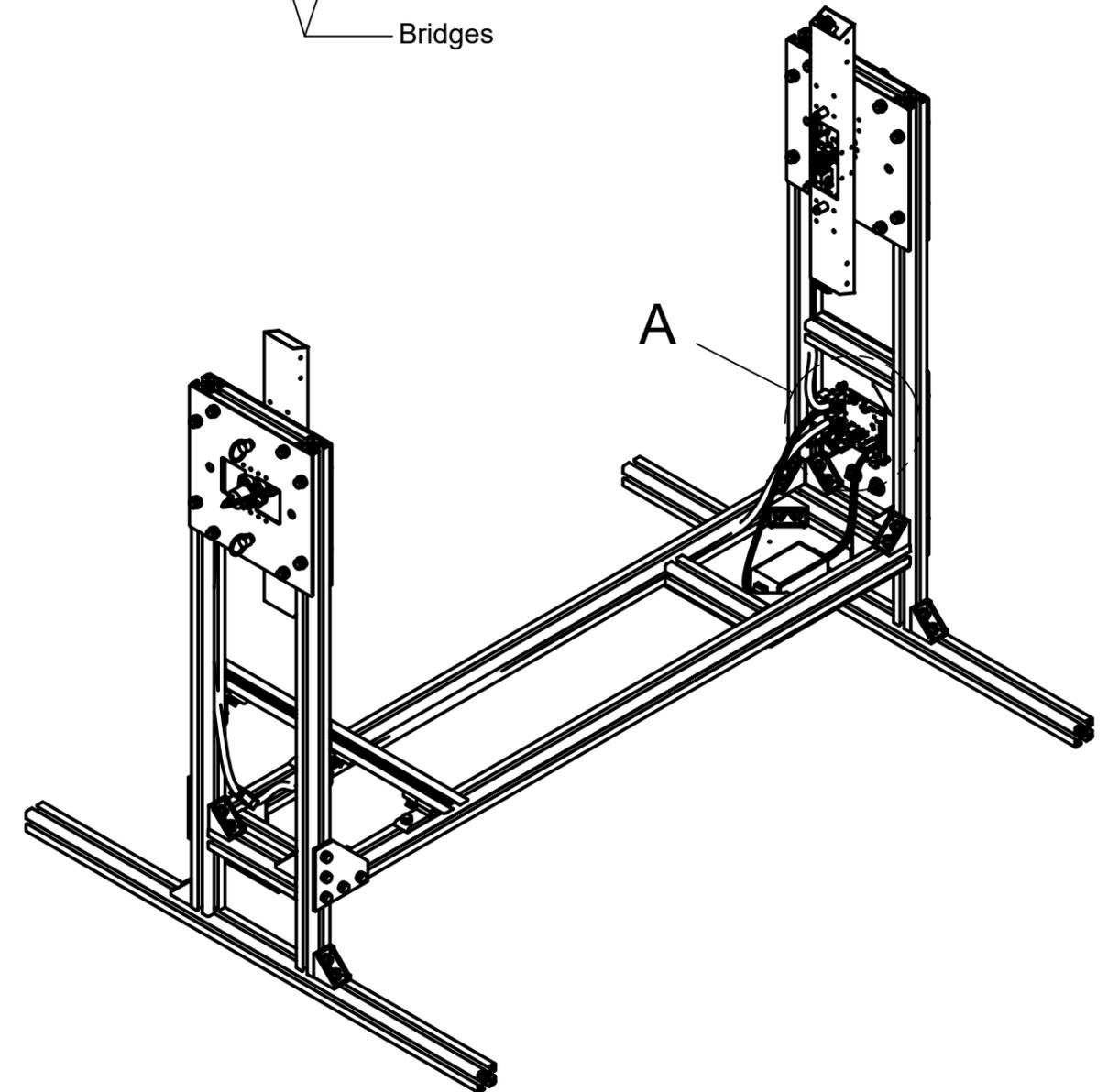
- Wire F (tagged)
- Wire E (tagged)
- Wire bridges (18)
- 12v terminals

Connect AC line to AC power block.

- AC Line L
- AC Line N



DETAIL A

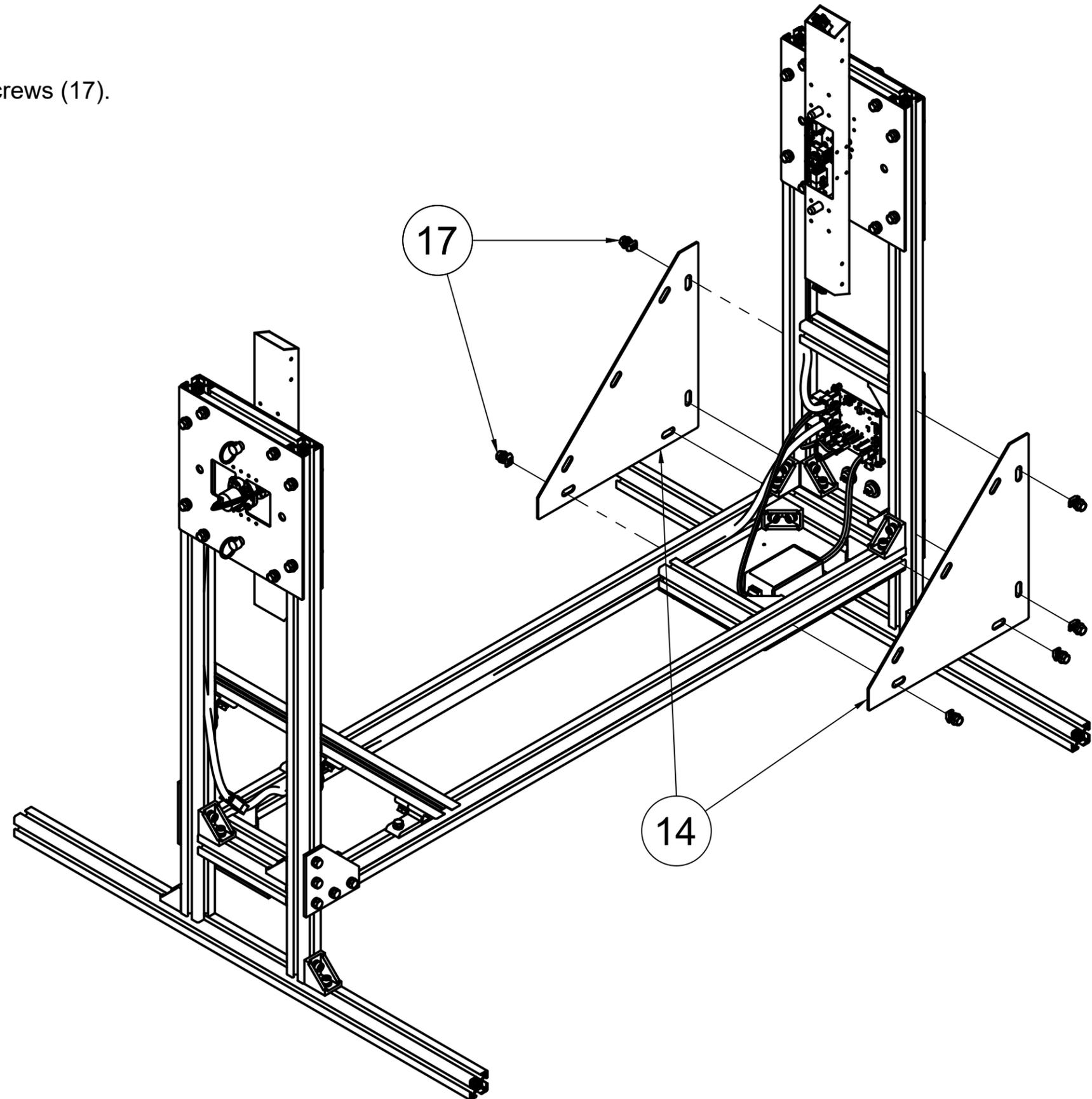


Step 6

Align side plates (14) and secure with black t-nut screws (17).
Tighten all the screws.

Tools required for this step:

- Hex wrench 10 mm (not included).

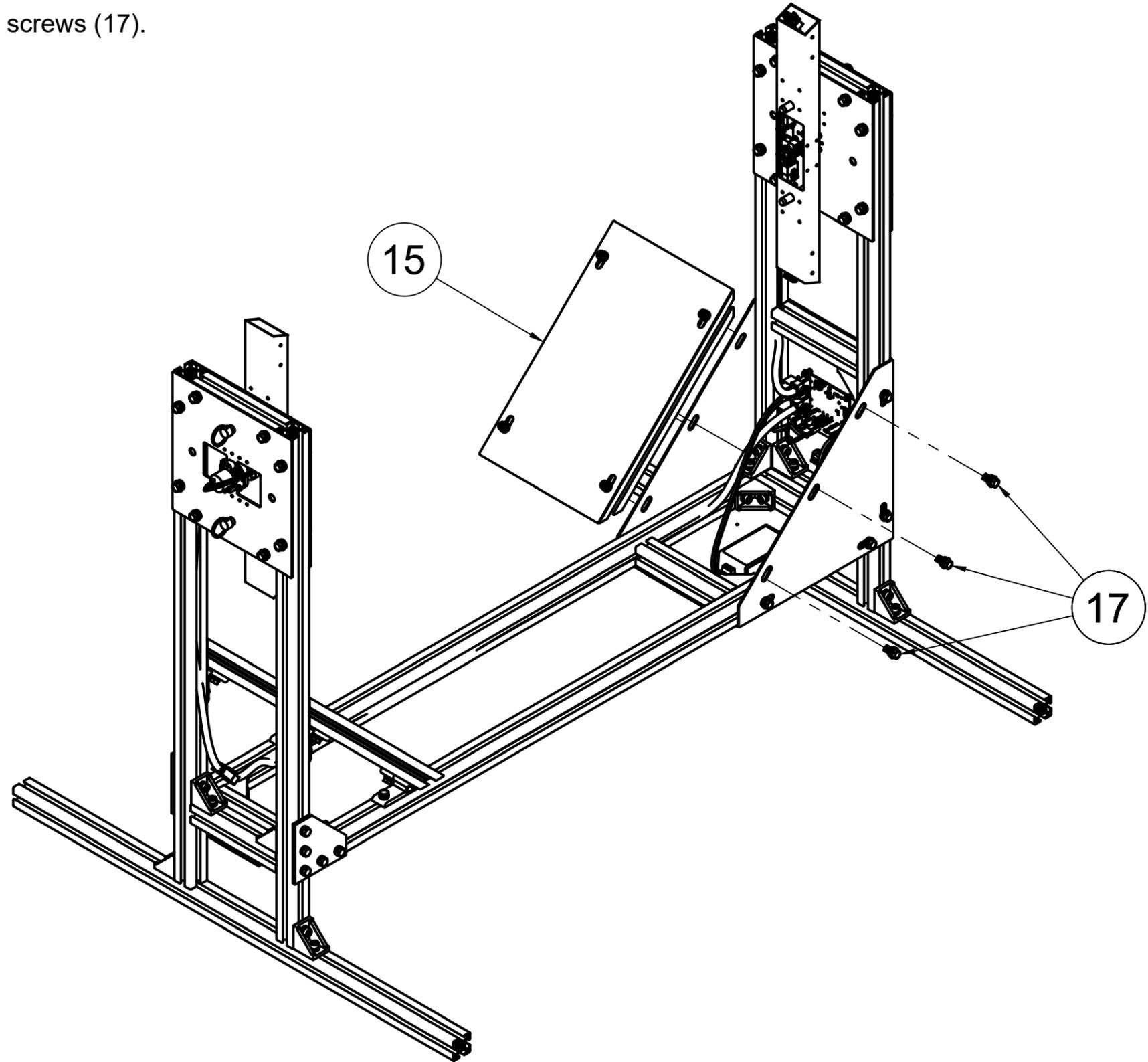


Step 7

Attach diagonal plate (15) and secure with black t-nut screws (17).
Tighten all the screws.

Tools required for this step:

- Hex wrench 10 mm (not included).

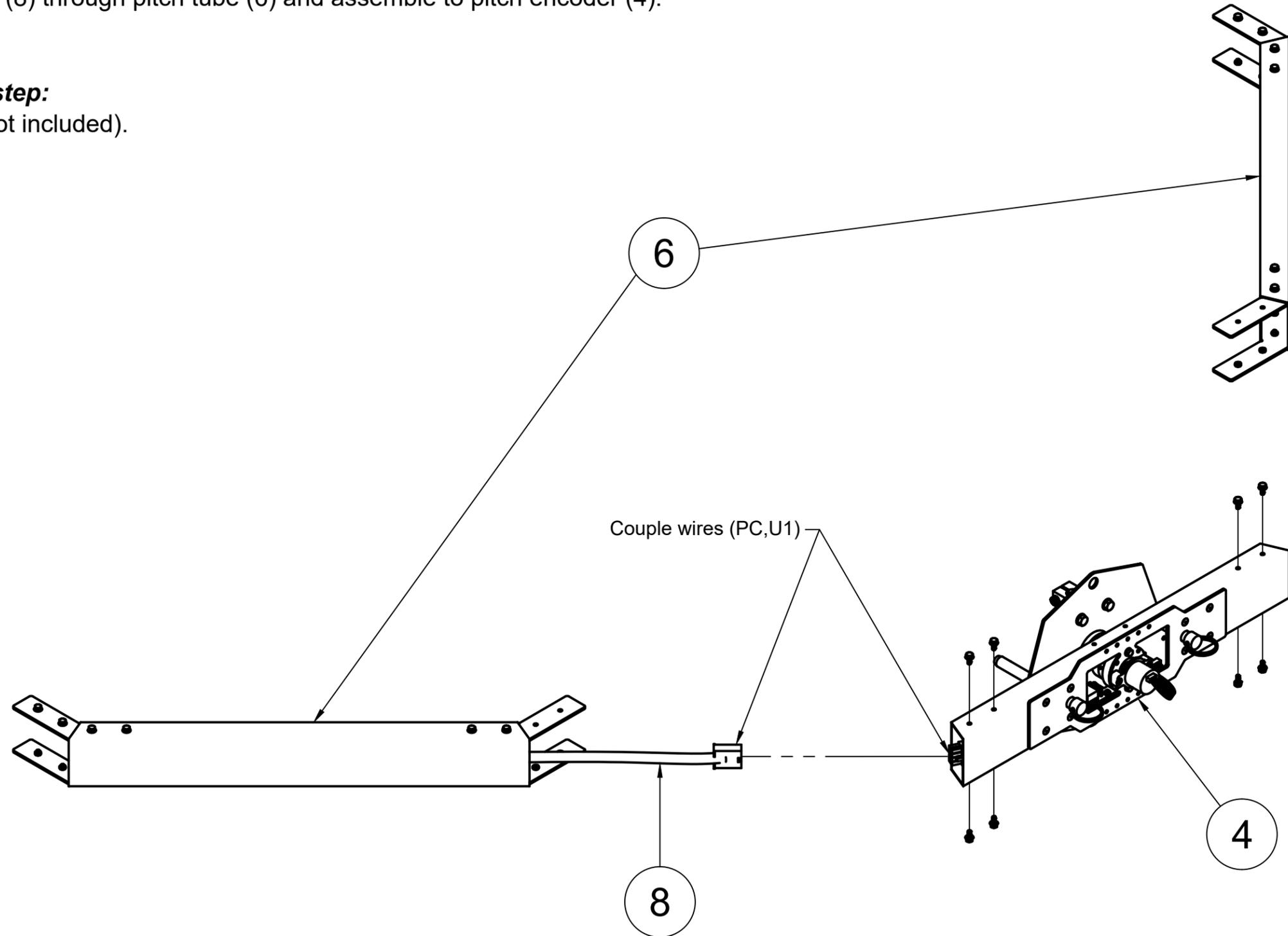


Step 8

1. Connect wire connector (8) tagged as PC,U1 to pitch encoder (4).
2. Route wire connector (8) through pitch tube (6) and assemble to pitch encoder (4).
3. Secure with screws.

Tools required for this step:

- Hex wrench 5 mm (not included).

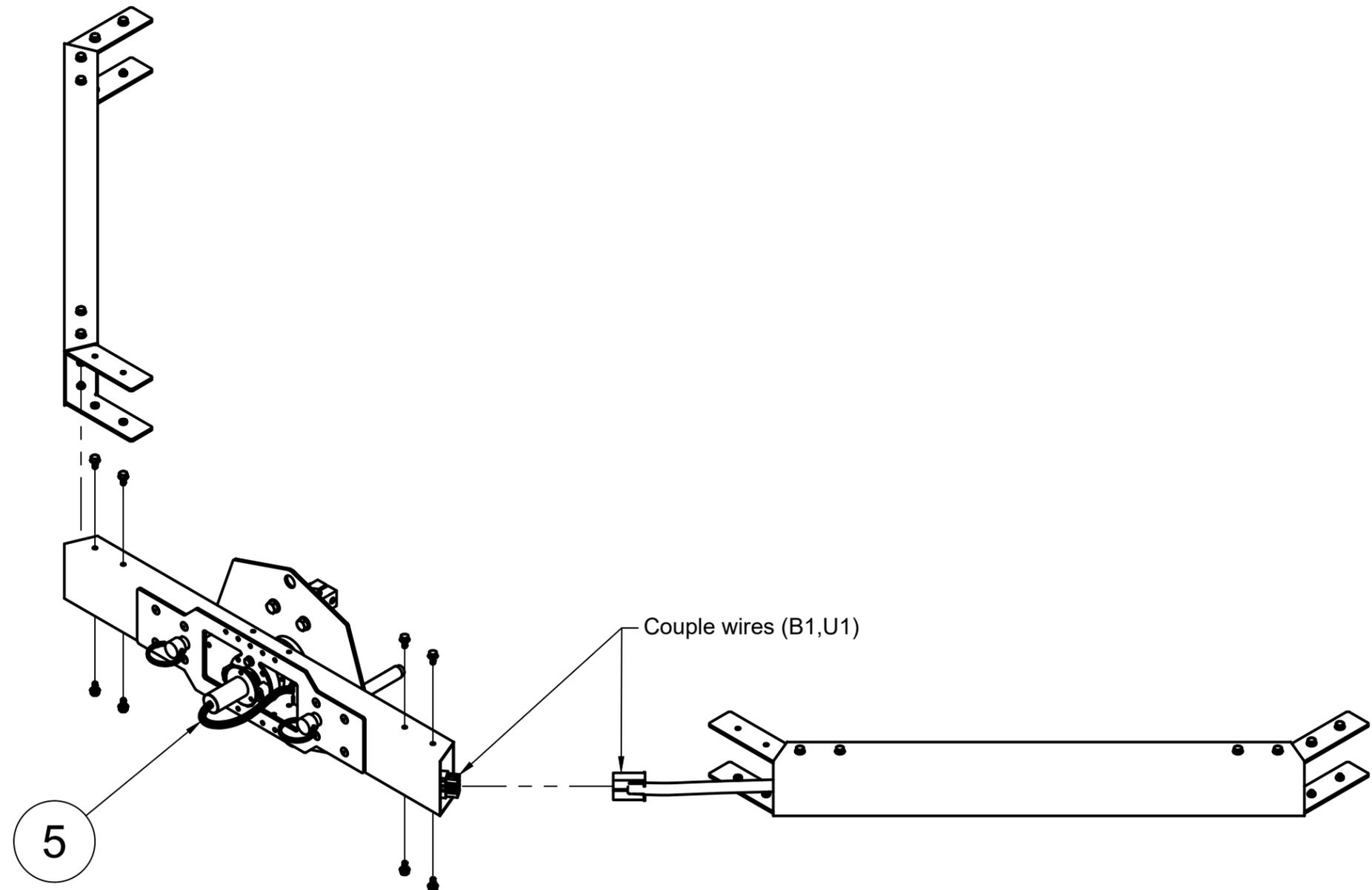


Step 9

1. Connect wire connector (8) tagged as B1,U1 to pitch slip ring (5).
2. Route wire connector (8) through pitch tube (6) and assemble to pitch slip ring (5).
3. Secure with screws.

Tools required for this step:

- Hex wrench 5 mm (not included).



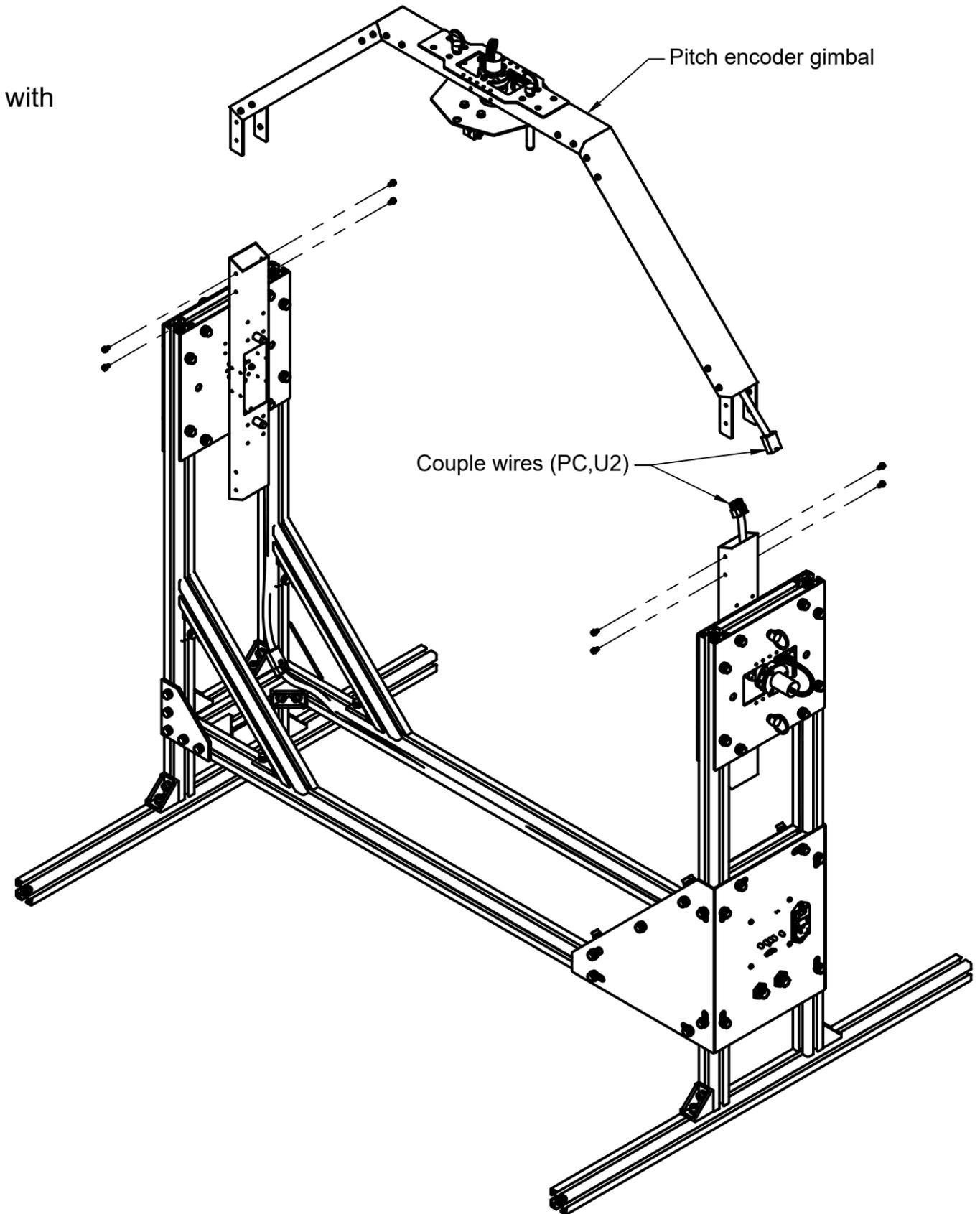
Step 10

Note: This step requires the assistance of at least 2 people.

Align pitch encoder gimbal, couple wires tagged as PC,U2 and secure with screws.

Tools required for this step:

- Hex wrench 5 mm (not included).



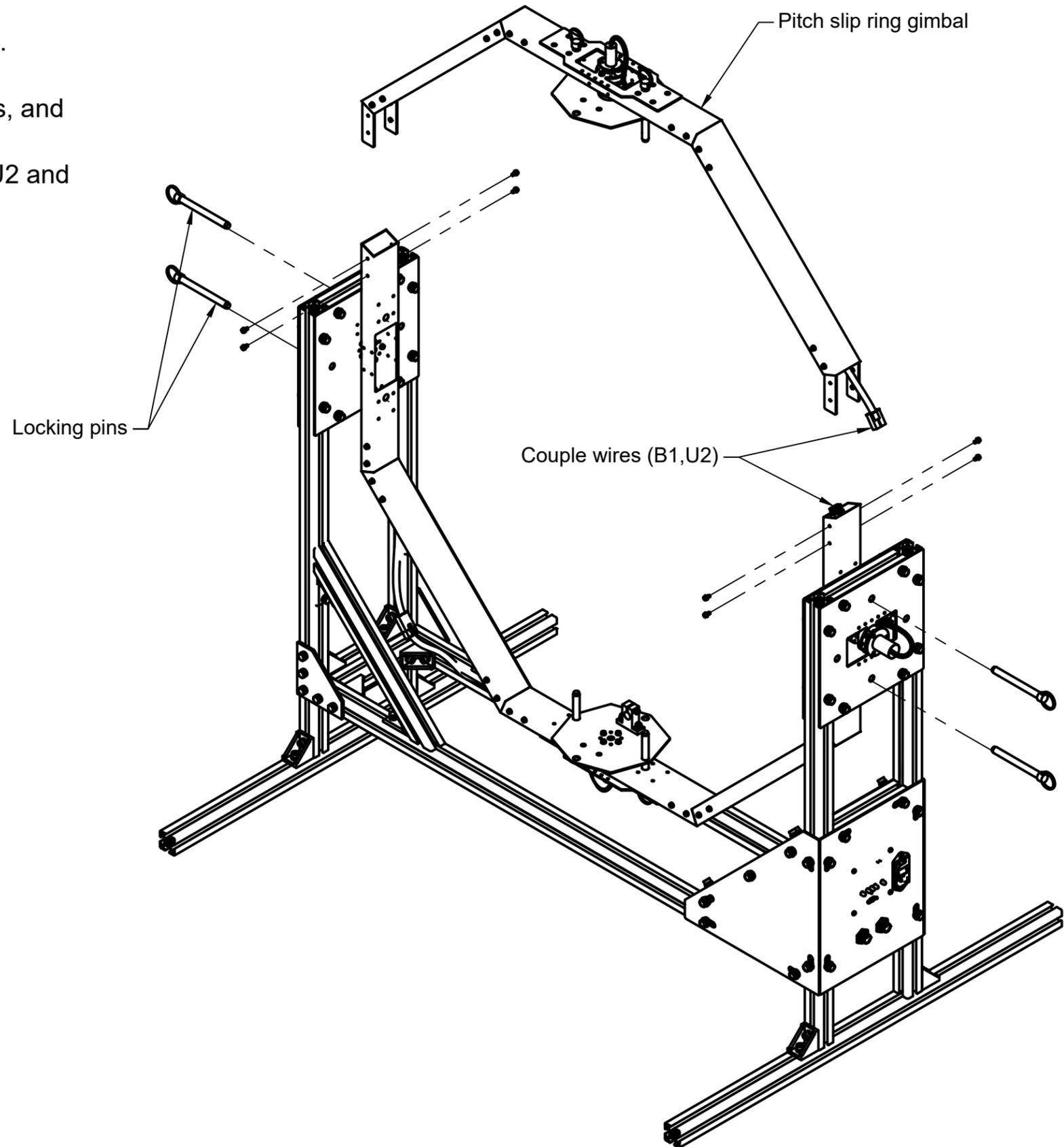
Step 11

Note: This step requires the assistance of at least 2 people.

1. Remove pitch's locking pins, turn gimbal 180 degrees, and lock locking pins back in.
2. Align pitch slip ring gimbal, couple wires tagged B1,U2 and secure with screws.

Tools required for this step:

- Hex wrench 5 mm (not included).



Step 12

Attach grips (23) to roll (7) and tighten screws.

Tools required for this step:

- Allen key 3 mm (included).
- Hex wrench 7 mm (Not included).

Notes:

The grip design provides a mounting solution for most standard structured drones.

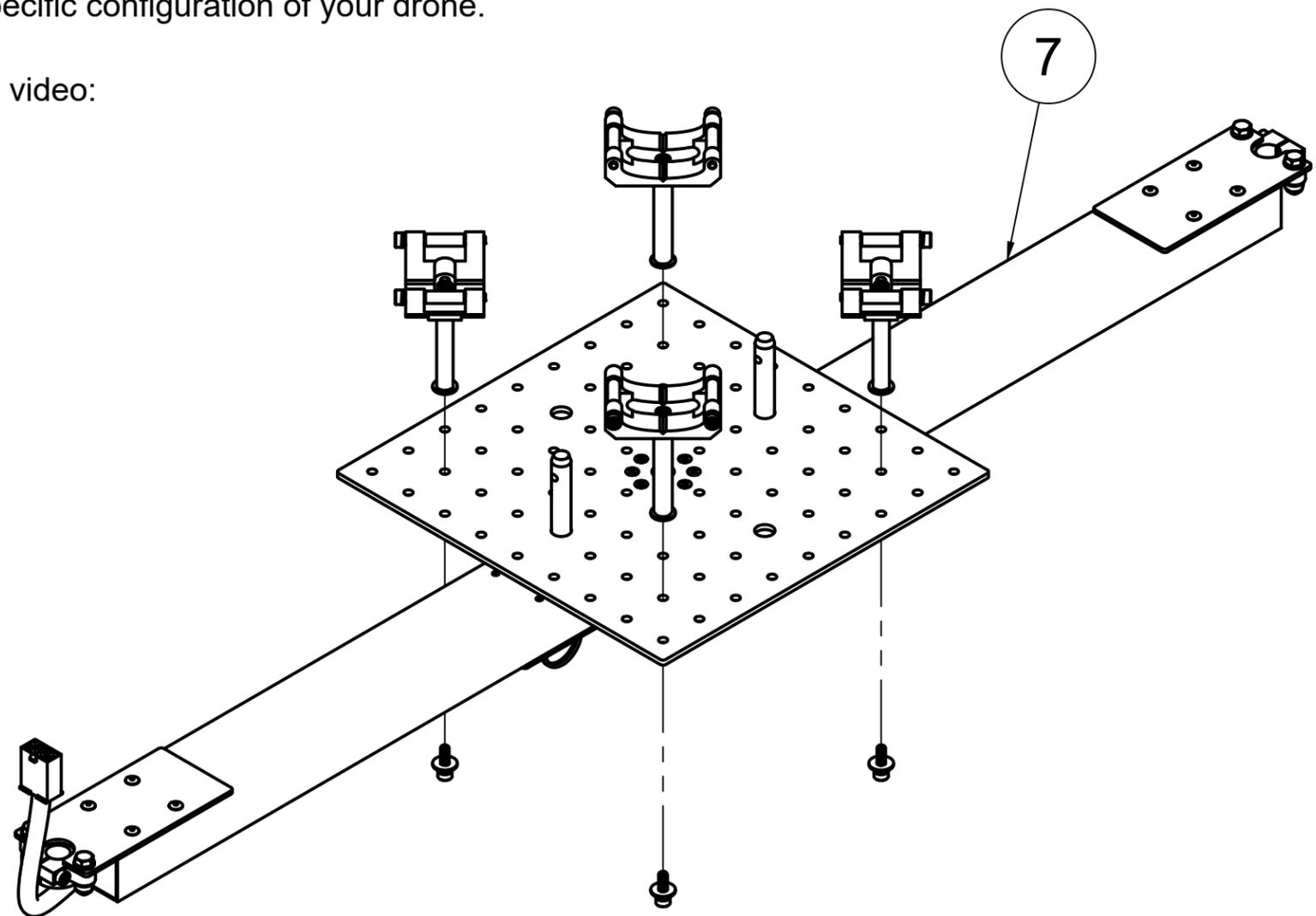
The arms of your drone will rest on the grips, which can then be secured using the included hook-and-loop strip.

The position and angle of the grips can be adjusted to suit the specific configuration of your drone.

For detailed mounting instructions, scan the QR code to view the video:



Scan this QR code to see the mounting video.

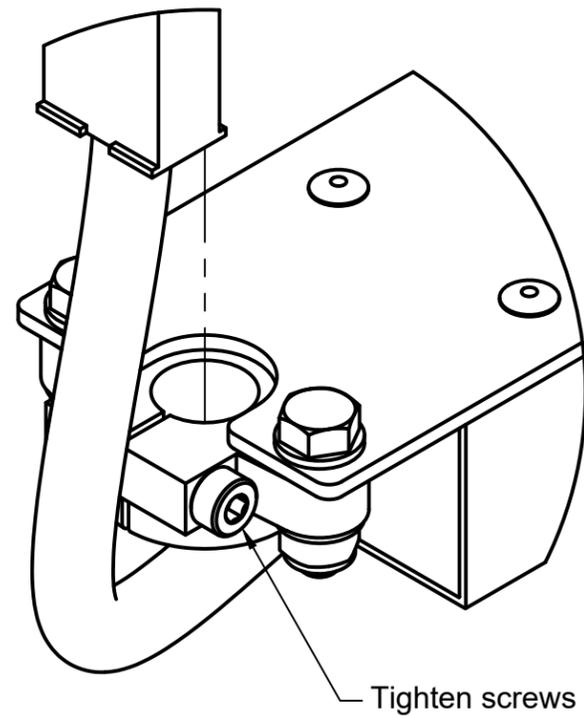


Step 13

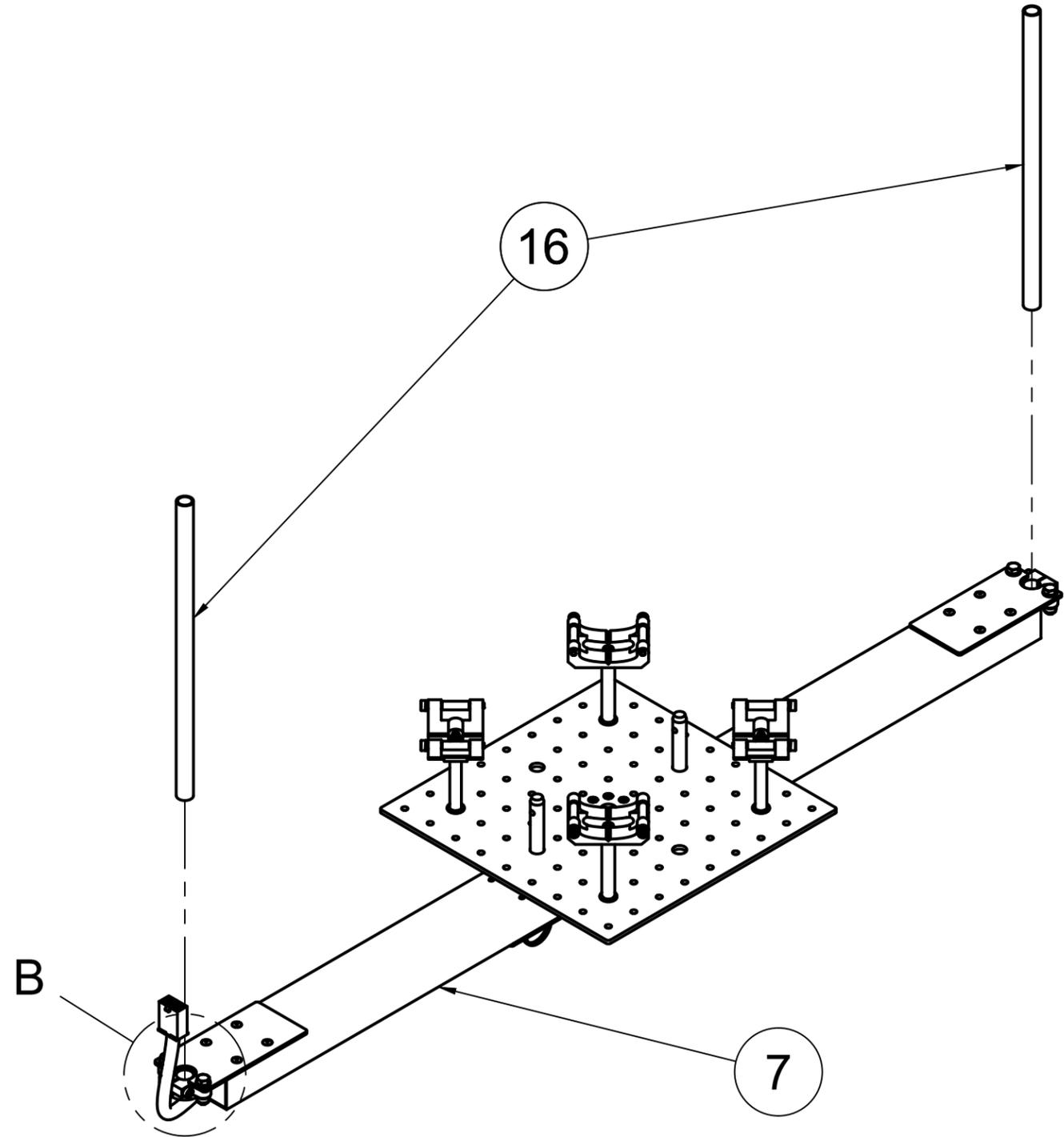
Attach sliding tubes (16) to roll (7) and tighten screws.

Tools required for this step:

- Allen key 2.5 mm (included).



DETAIL B



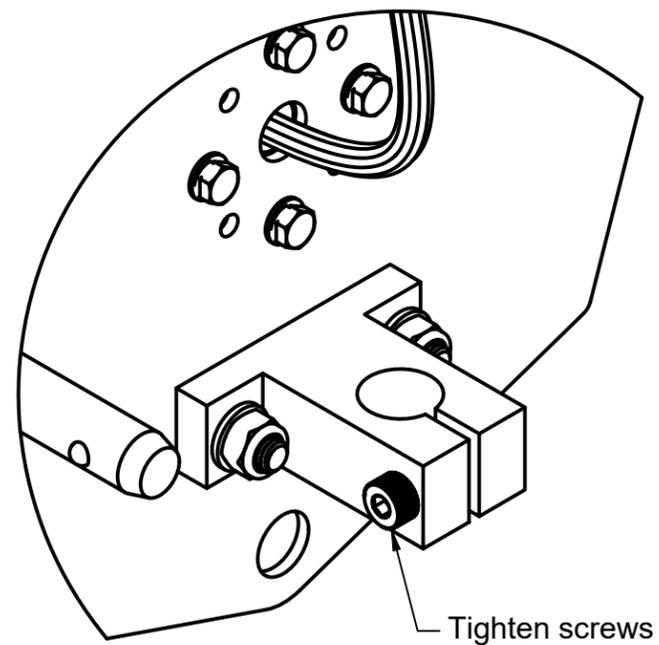
Step 14

Note: This step requires the assistance of at least 2 people.

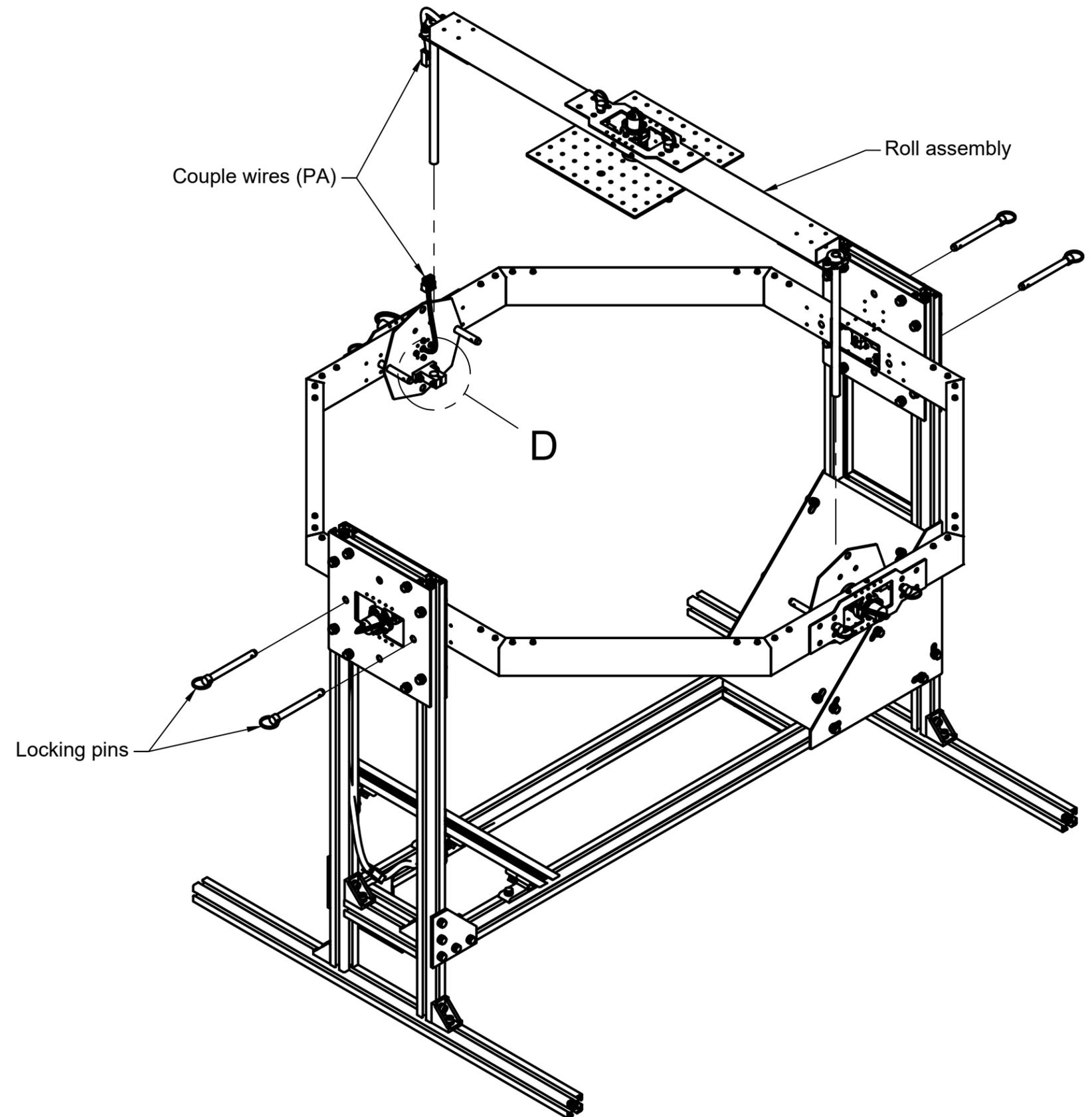
1. Remove pitch's locking pins, turn gimbal 90 degrees, and lock locking pins back in.
2. Slide roll assembly into the gimbal and tighten screws. Make sure sliding distance is equal both sides.
3. Couple wires tagged as PA.

Tools required for this step:

- Allen key 4 mm (included).



DETAIL D



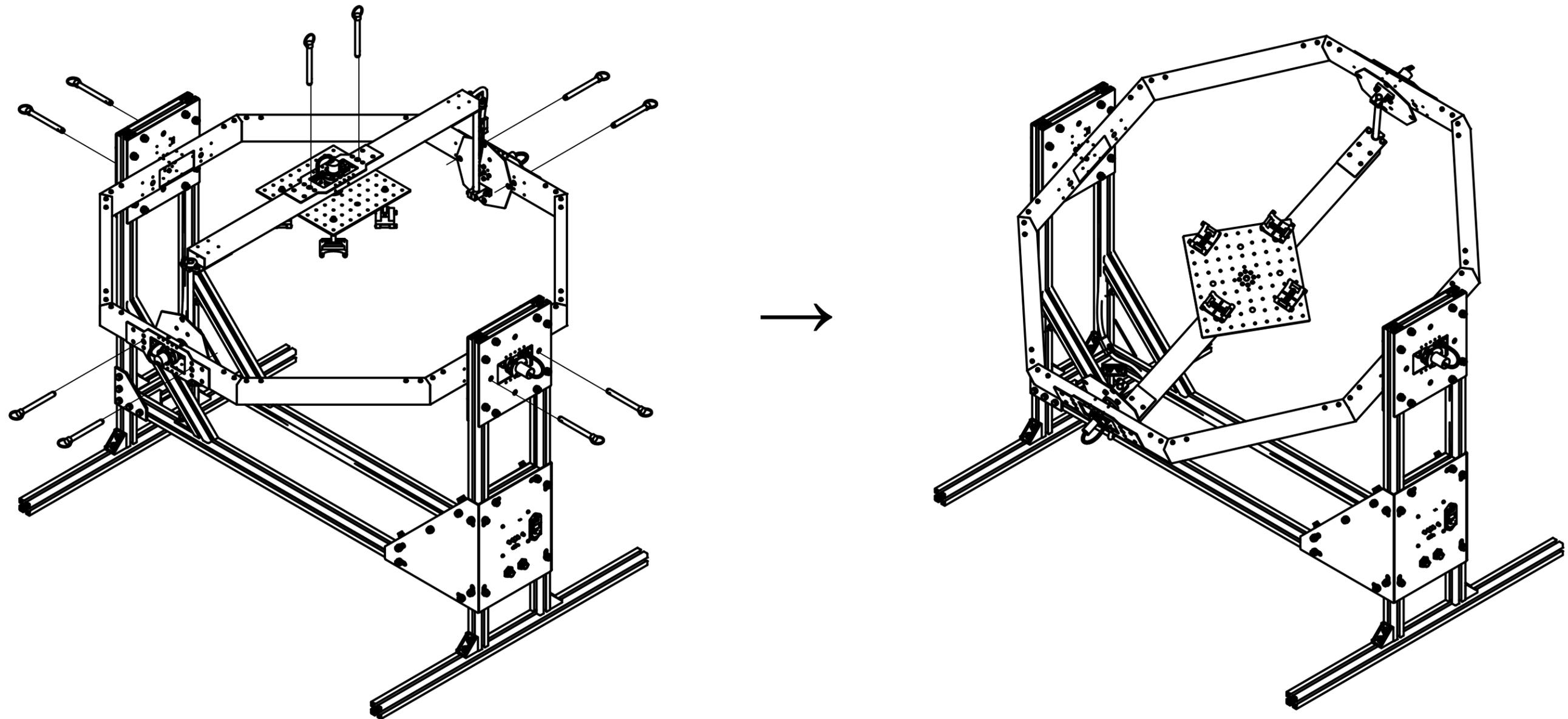
You are done!

The assembly is now completed.

To verify the free rotation of the gimbals (multirotations 360°) follow the next steps:

1. Remove all locking pins.
2. Rotate each gimbal multiple times, making sure it freely rotates. There should be no obstructions, no noticeable friction.

Once the verification steps are completed without issues, you may **start innovating with drones**.

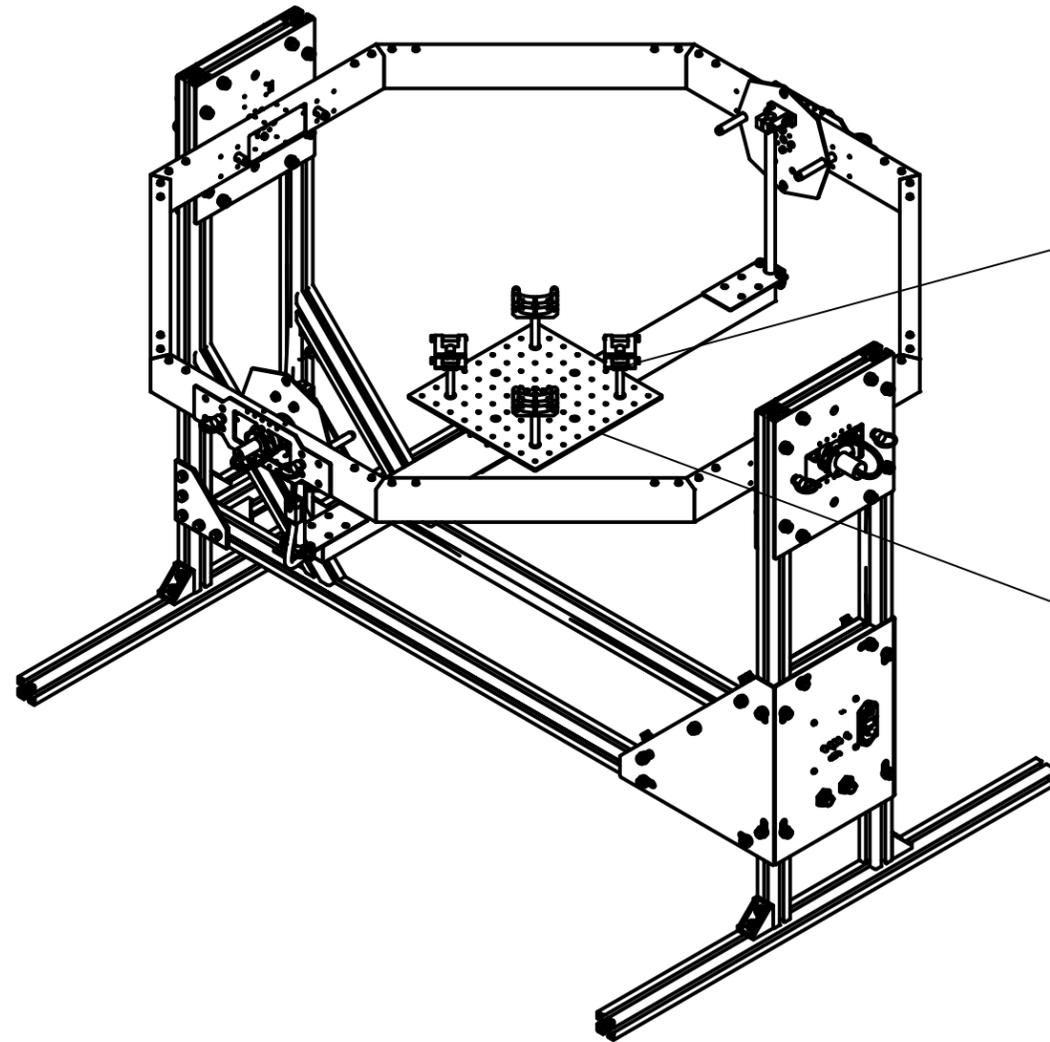


Customizable yaw platforms

We've included two extra yaw plates for your preference. These platforms can test drones with a standard configuration of four or six rotors.

To change platforms: unscrew bolts, change plate, and screw bolts back again.

Tools required: Allen key 2 mm (included).



The FFT GYRO comes with a preinstalled custom plate that fits any rotor configuration.

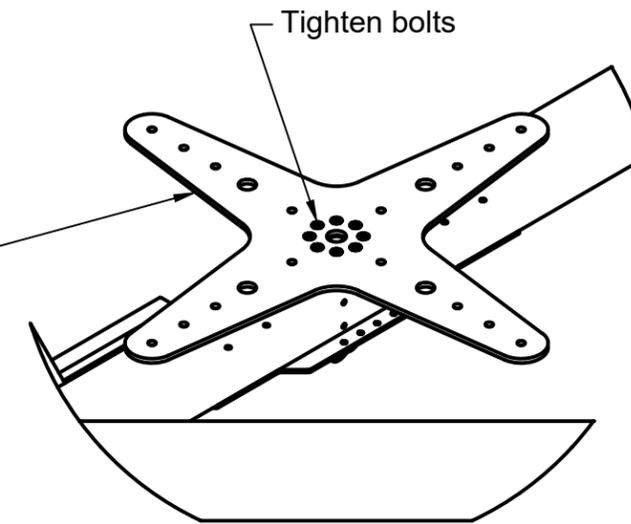


Plate for four-rotor drones.

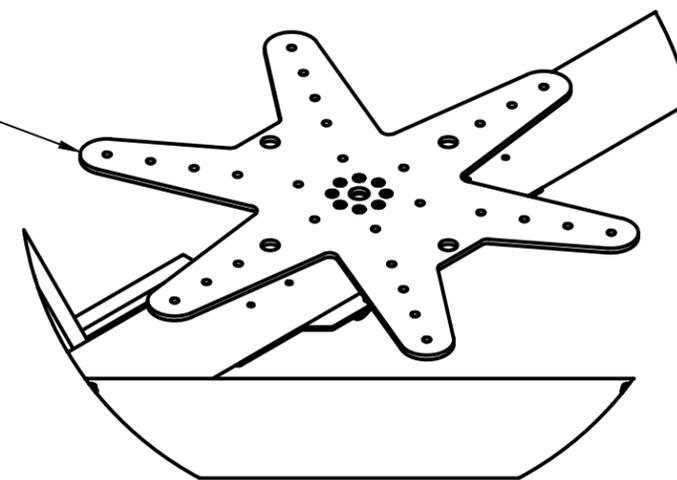


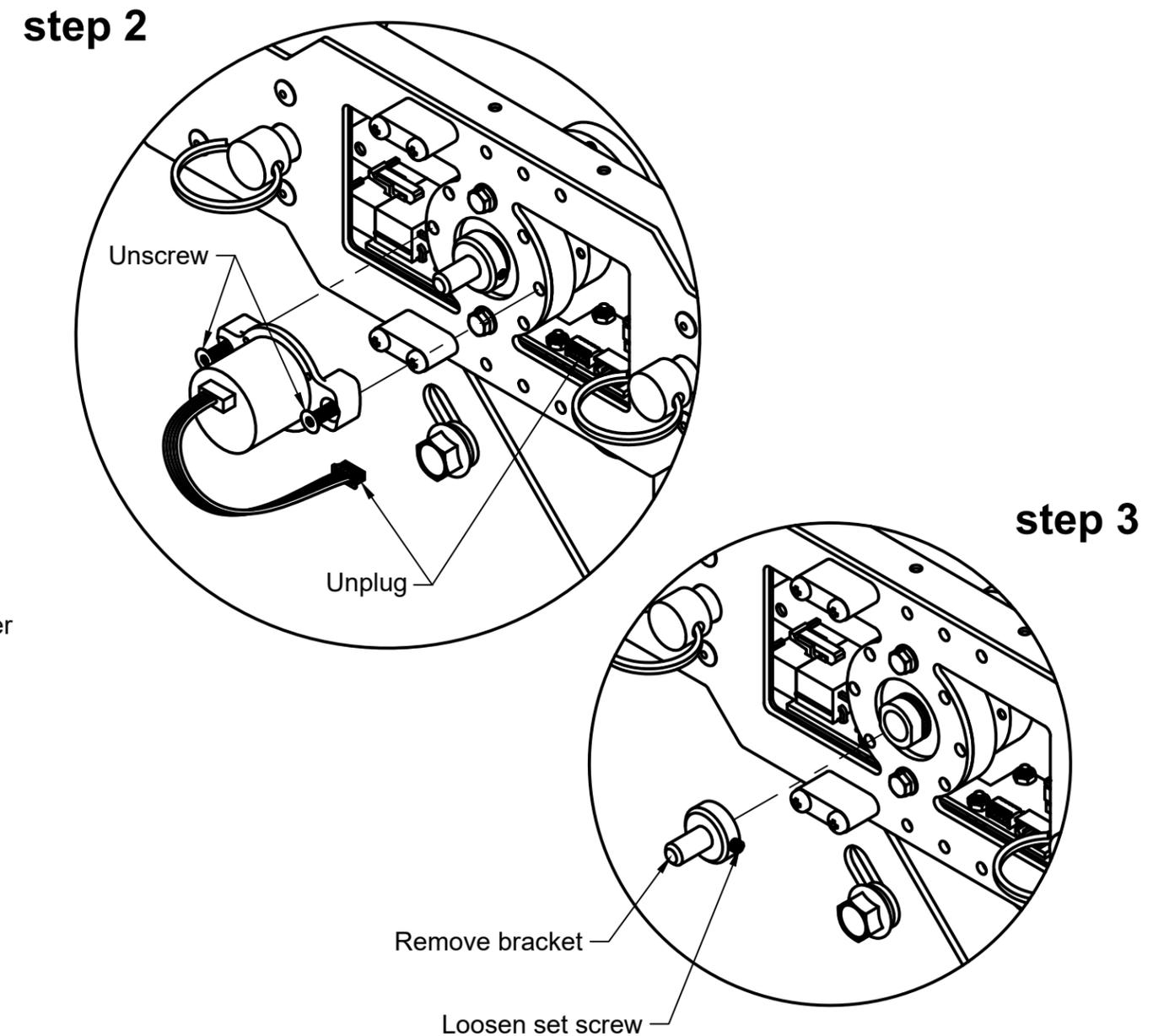
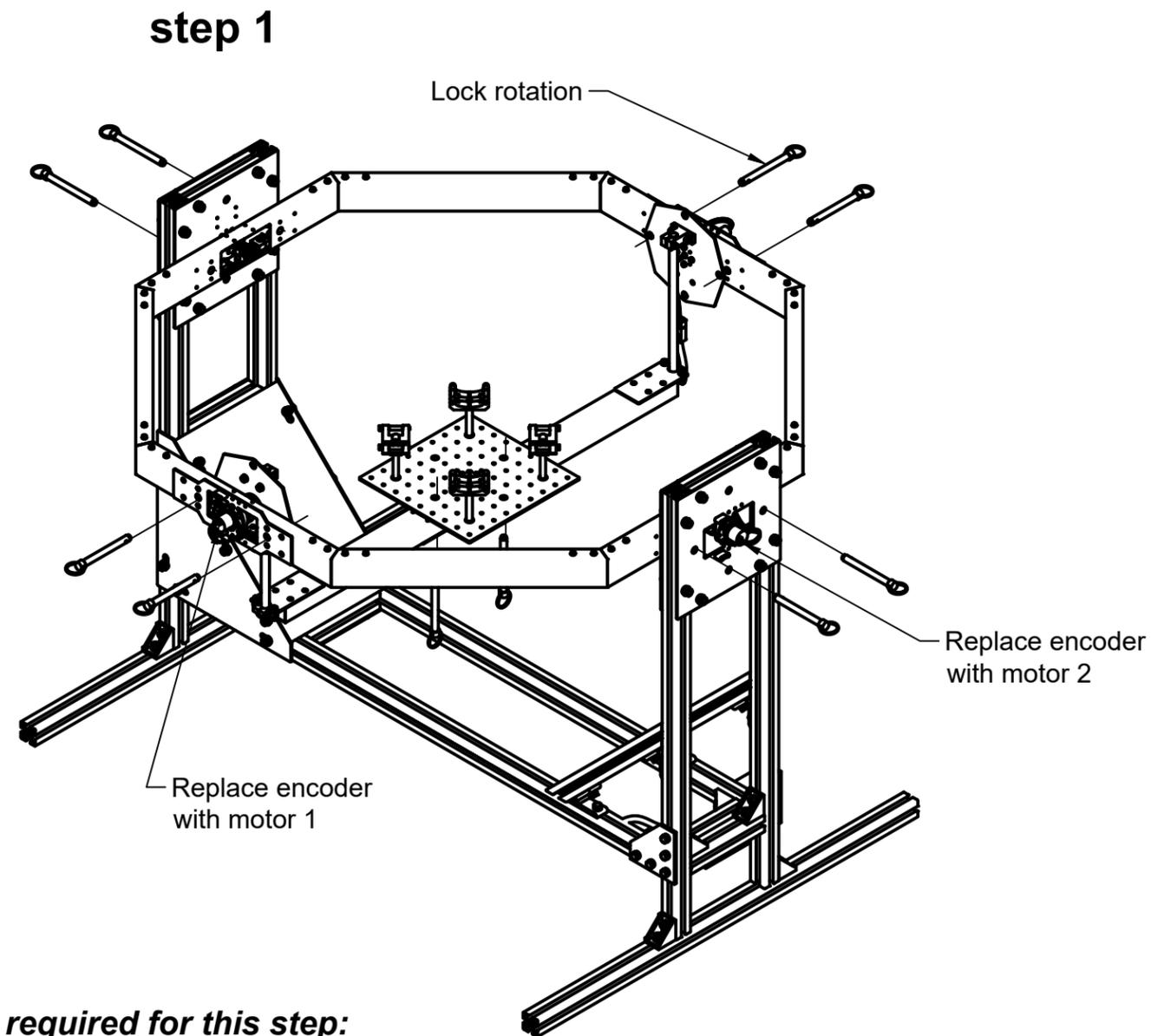
Plate for six-rotor drones.

Motor kit installation steps

If your FFT GYRO includes a motor kit (purchased separately), here is a step by step guide to install it.

1. Align the gyroscope at home position (0° labels should match) and lock in place with locking pins.
2. Unplug encoders 1 & 2, then unscrew and remove both encoders.
3. Loosen set screw and remove bracket.

Note: Motors are labeled (1,2,3).



Tools required for this step:

- Allen key 1.5 mm (included).
- Allen key 2.5 mm (included).

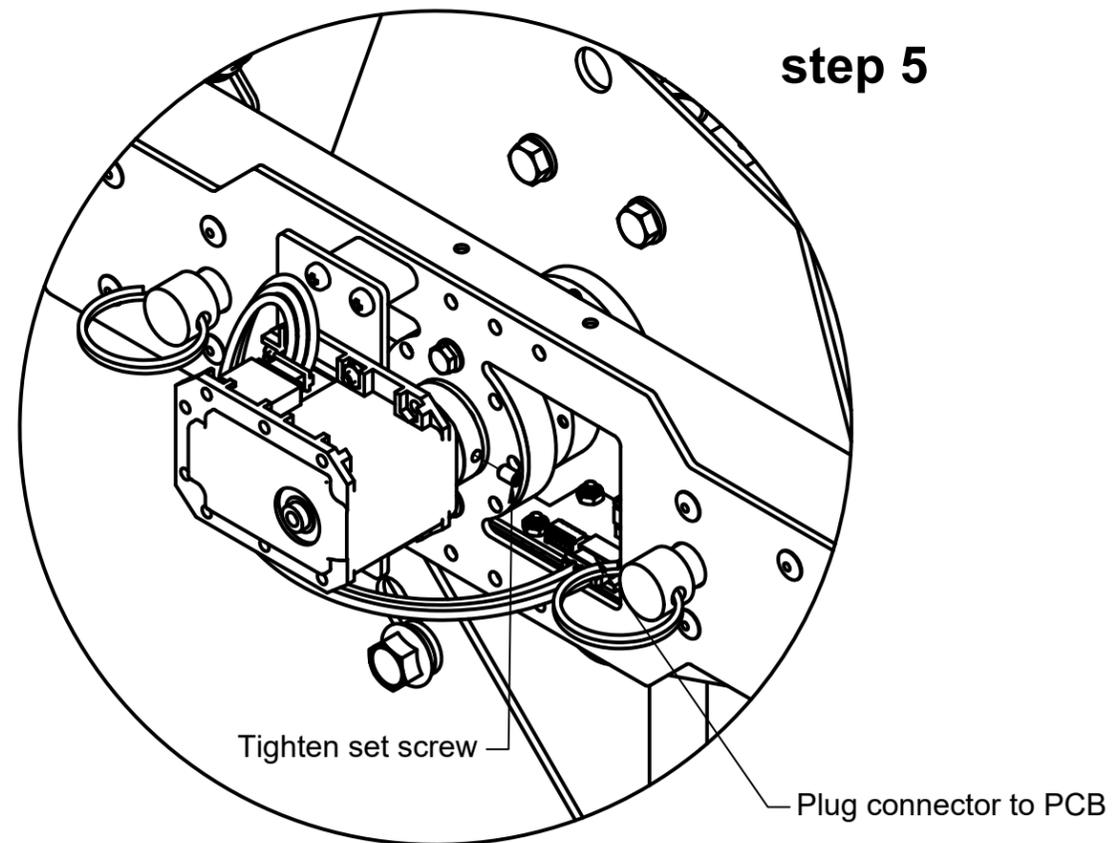
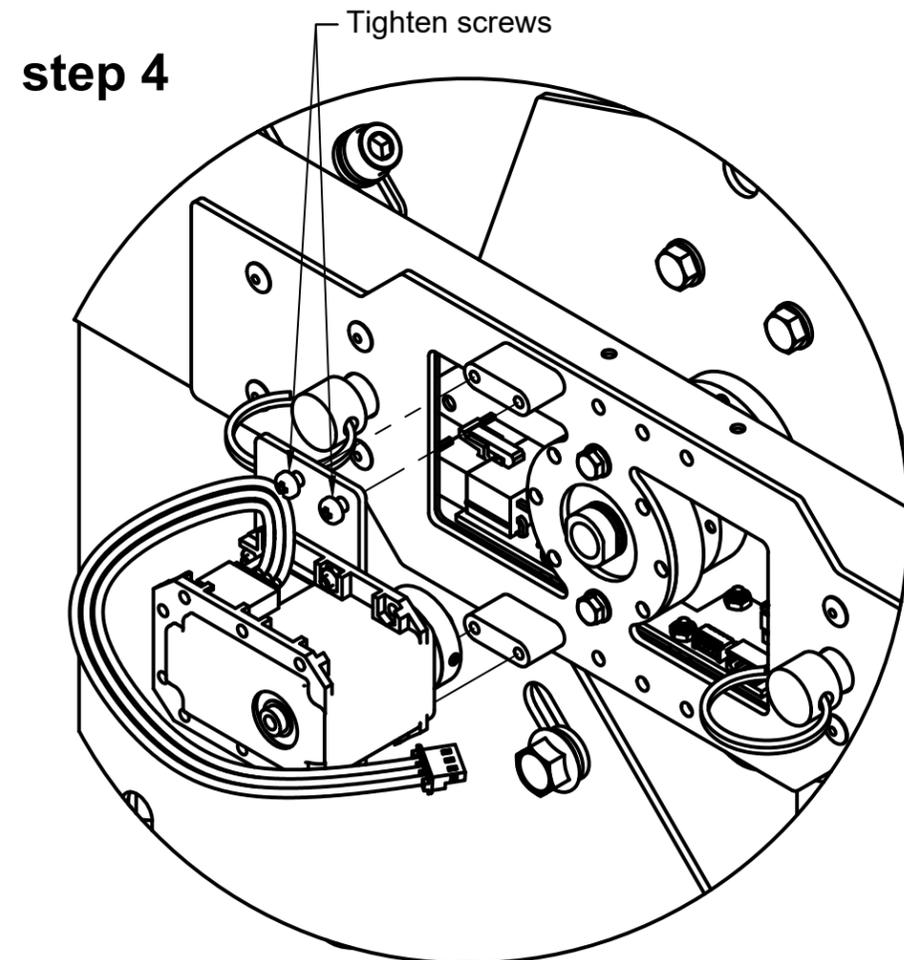
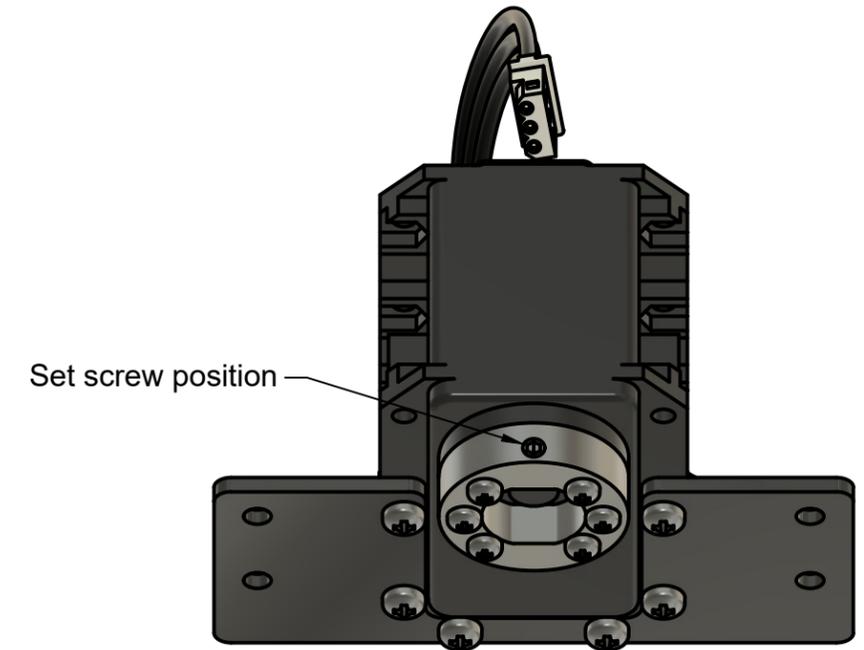
... more steps

Note: Verify that the motor's set screw is positioned at the top before installing.
Ensure it is not turned at an off angle.

4. Place motors 1 & 2 and tighten screws.
5. Tighten set screw and connect motors to PCB.

Tools required for this step:

- Allen key 1.5 mm (included).
- Phillips head screwdriver (not included).



... last steps

6. After these steps are completed for motors 1 & 2, turn the gimbal 90° to facilitate installation.
Then lock with locking pins, and repeat the same steps for motor 3.

To switch back from motors to encoders, follow the **same steps in reverse order**.

