

# Flight Simulator Trainer Station

## Assembly Manual



Assembly instruction manuals available at:

V2.2 060225

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## WARNINGS:



Proceed with caution and extra attention when warning signs are present during installation instructions manual.

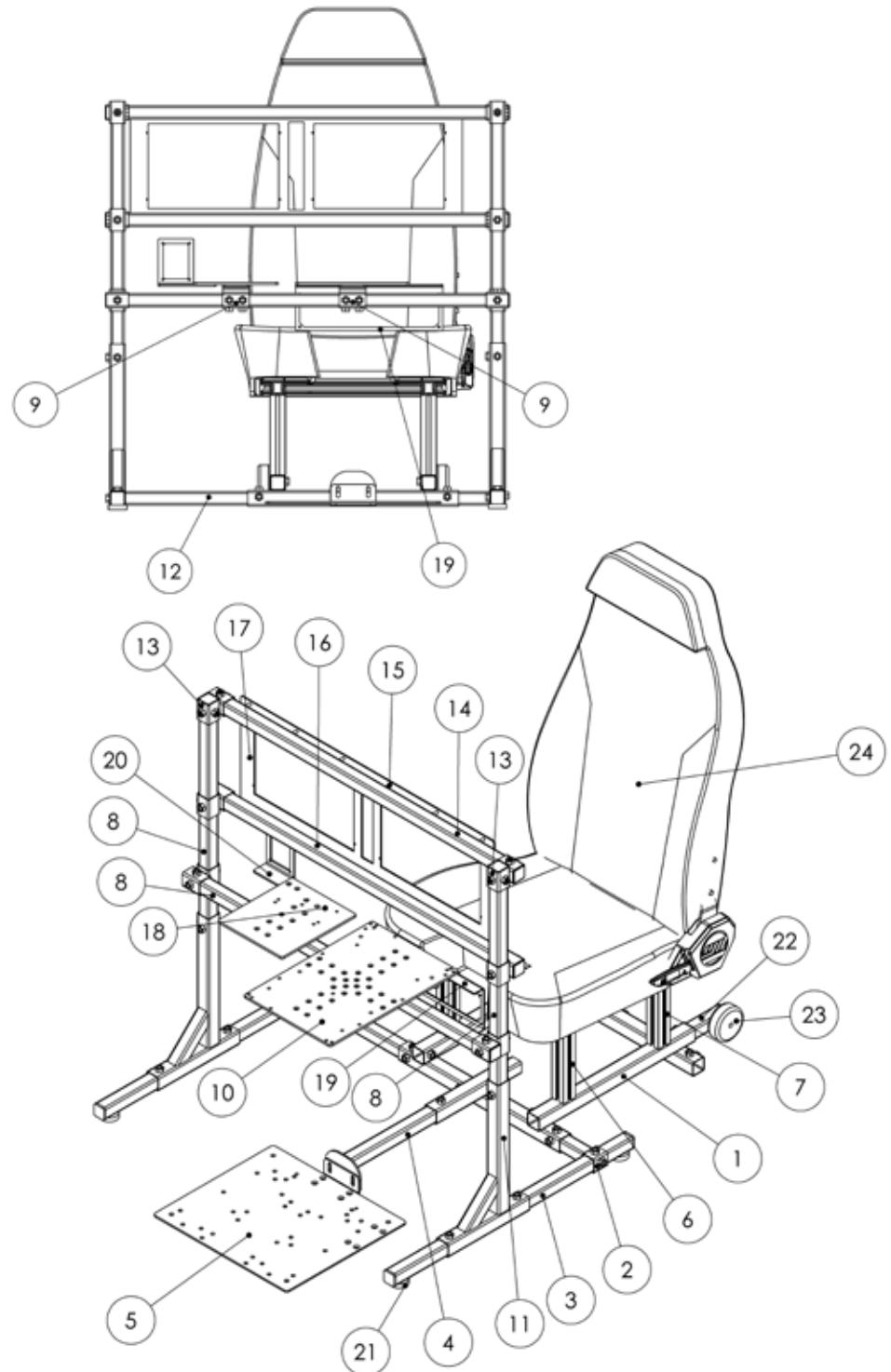


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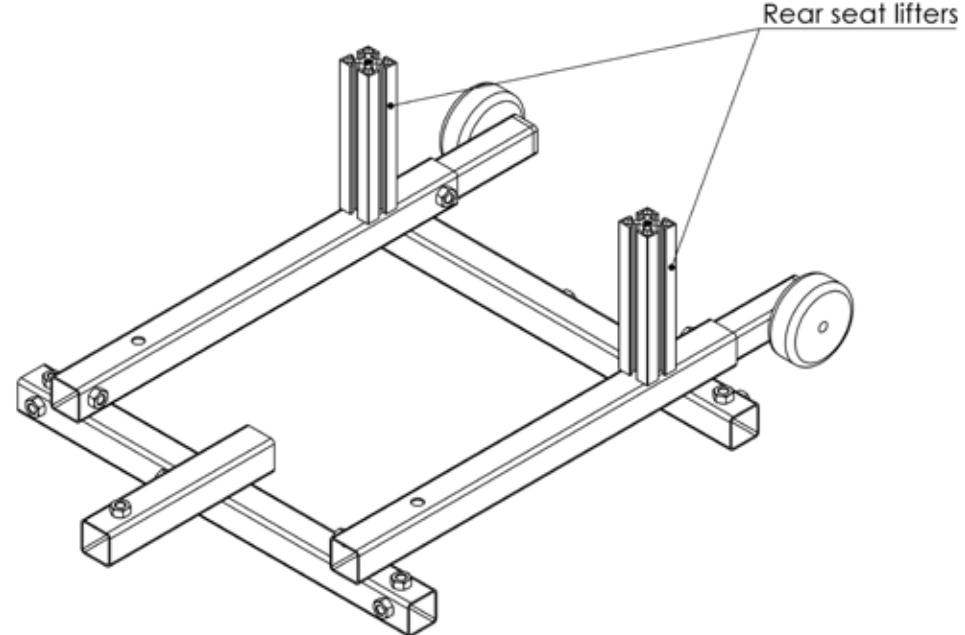
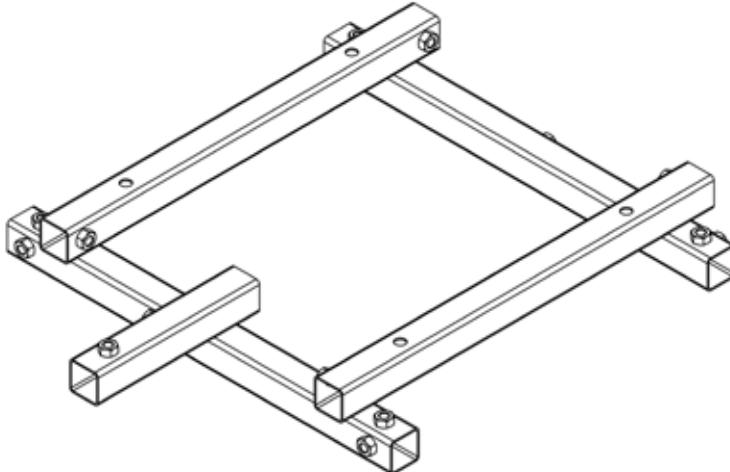
# Parts list

1. Seat frame (1)
2. Short T extension (1)
3. Side support tubes (2)
4. Rudder plate shaft (1) Pre-installed to seat frame
5. Rudder pedal plate (1)
6. Front seat lifters (2) inside seat lift kit bag with frame hardware, within seat frame
7. Rear seat lifters (2) inside seat lift kit bag with frame hardware, within seat frame
8. Upright tubes and yoke cross member tube (3)
9. Closed plate adapter brackets (2) pre-installed to plate.
10. Yoke plate (1)
11. Upright posts (2)
12. Long T extension (1)
13. 4 way couplers(6)
14. Upper panel tube(1)
15. Panel spacers (12)
- 15A. Panel bolts (12)
16. Lower panel tube (1)
17. Avionics panel (1)
18. Throttle plate (1)
19. Adapter bracket for Virtual Fly Switcho Lights. (not illustrated)
20. Adapter bracket for Virtual Fly Switcho Trims. (not illustrated)
21. Leveling feet (4)
22. Short wheel extension (2) within seat frame, bottom of large box.
23. Rolling wheels (2) Assembled to wheel tubes
24. Flight seat (1) shipped in two pieces: backrest and seat base.

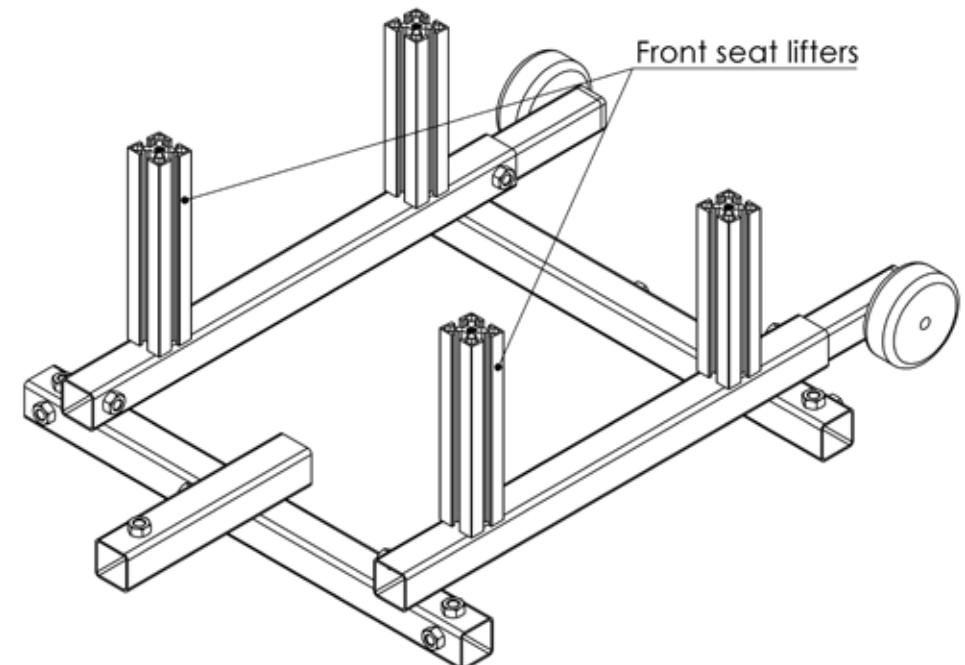
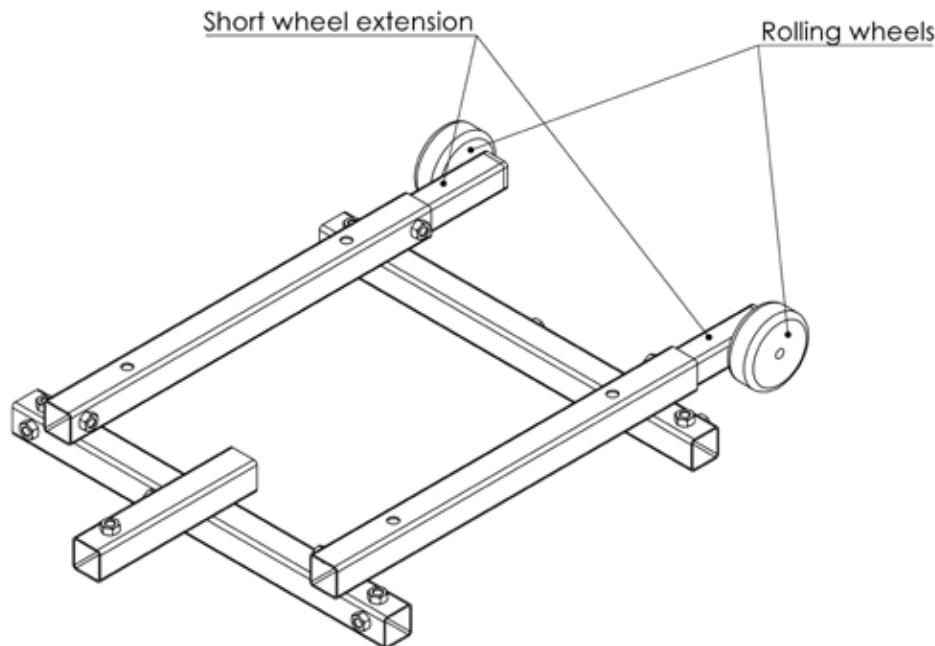


1. Install seat lift kit to seat base and seat frame to seat lift kit. Follow instructions in seat lift kit assembly manual booklet.

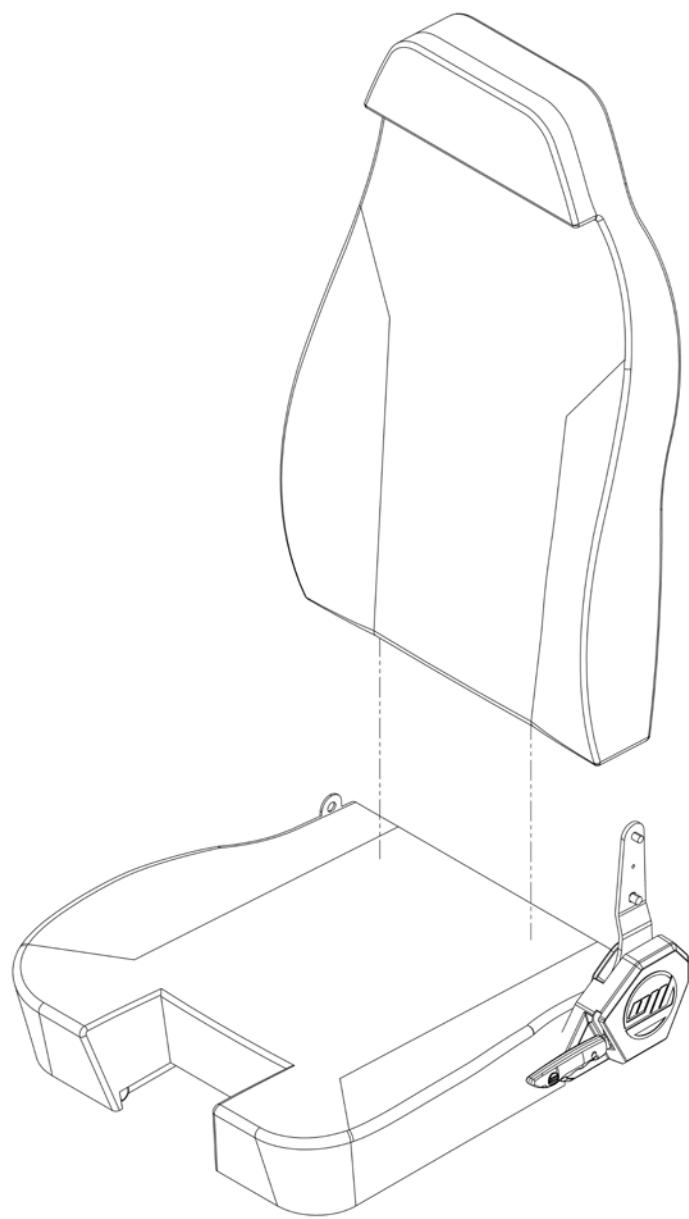
Install Arm Rest kit at the same time. Refer to arm rest assembly manual.



Install EZ rolling wheels.



2. Install seat backrest to seat base.



3. Remove pre-installed pair of recliner mechanism bolts on left side of the backrest and hinge bolt on right side of the seat base.

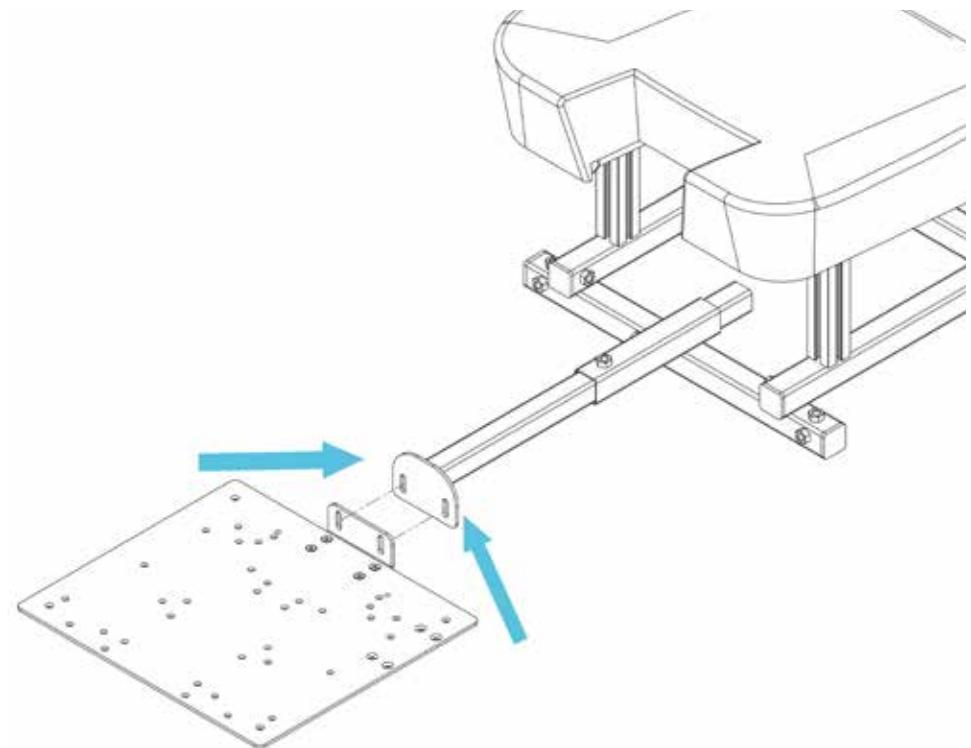


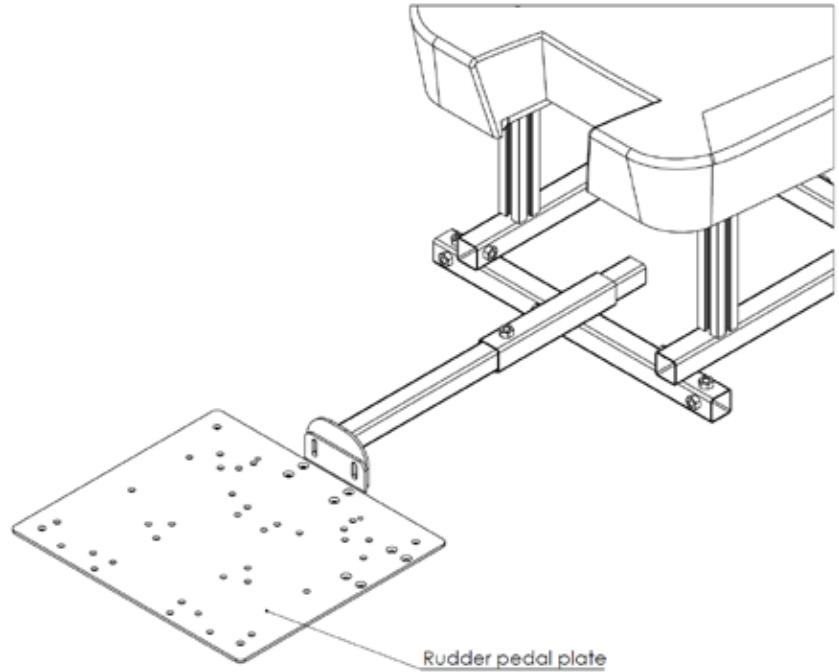
**⚠ Following sequence of assembly steps is crucial for frustration free installation of seat backrest to seat base.**

- Align backrest with seat reclining arm on the left side. Hand tight single hinge bolt on right side **first**. Even if left side is not aligned perfectly, focus on aligning right side with single hinge bolt.
- Guide left side of backrest to match either one of the backrest threaded insert with reclining mechanism arm hole and hand tighten bolt.
- Align 2nd threaded insert with recliner arm hole and hand tighten bolt.
- Tighten all 3 bolts by included wrenches.

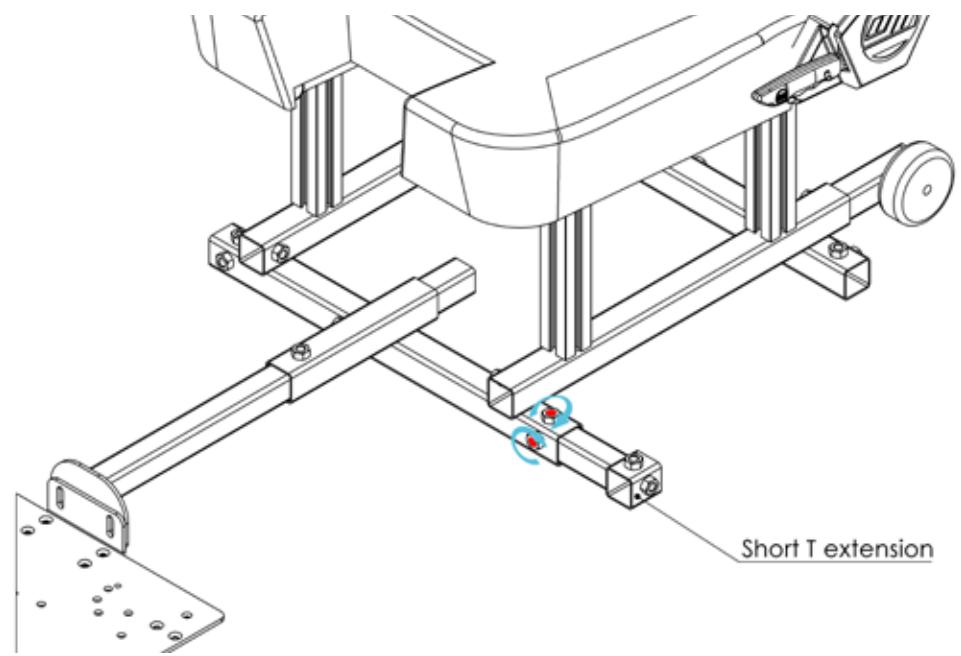
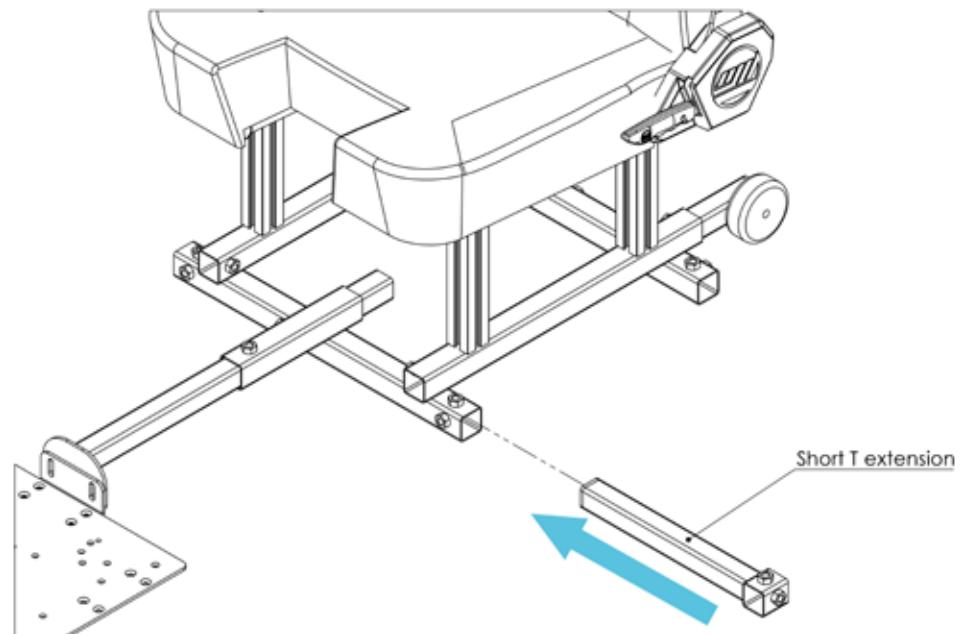


4. Remove pre-installed rudder plate shaft from seat frame and assemble with rudder plate. Refer to rudder plate assembly manual.

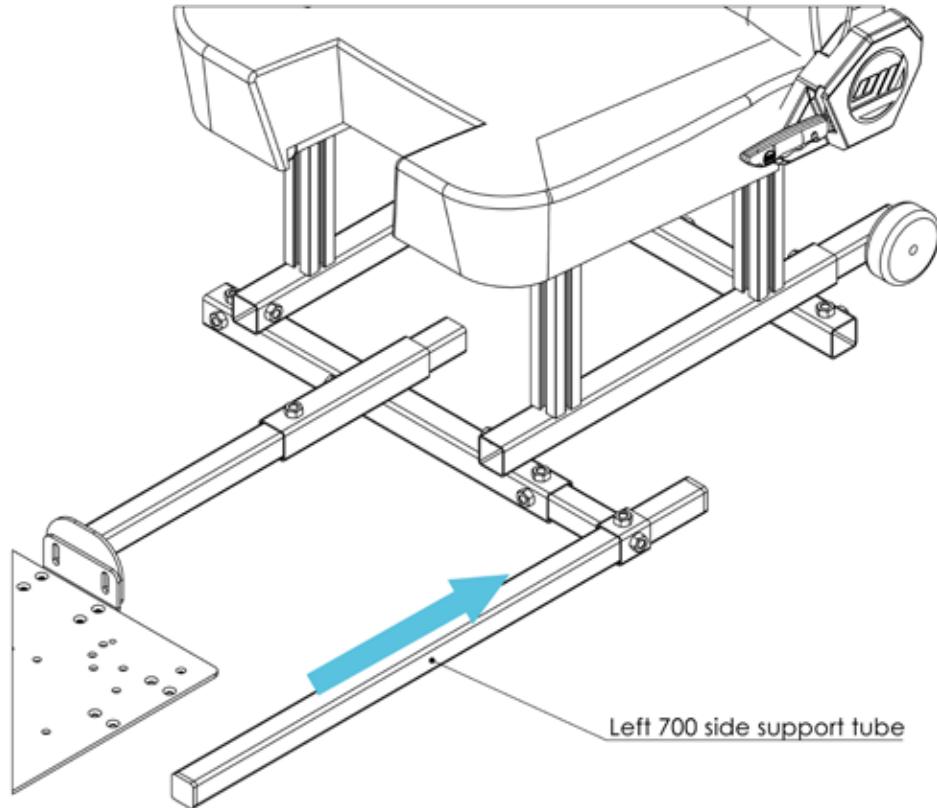




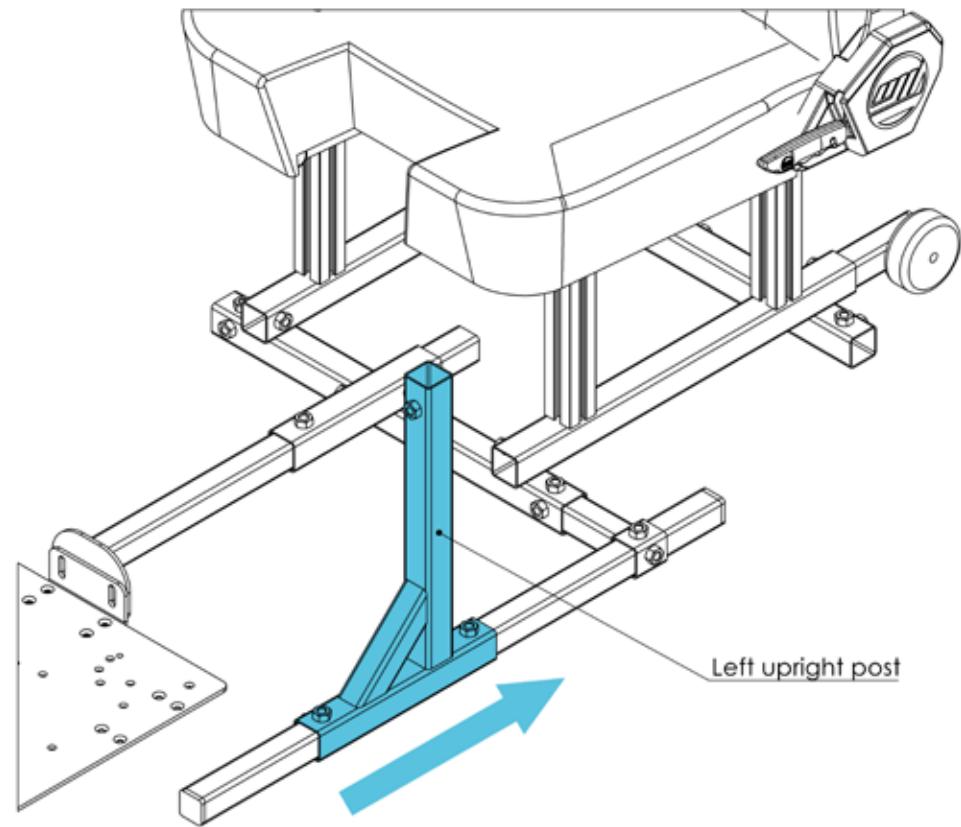
5. Install short T-extension to frame. Slide it all the way in until it bottoms out. You will be able to re-adjust after assembly is complete. Tighten set screws on the frame tube.



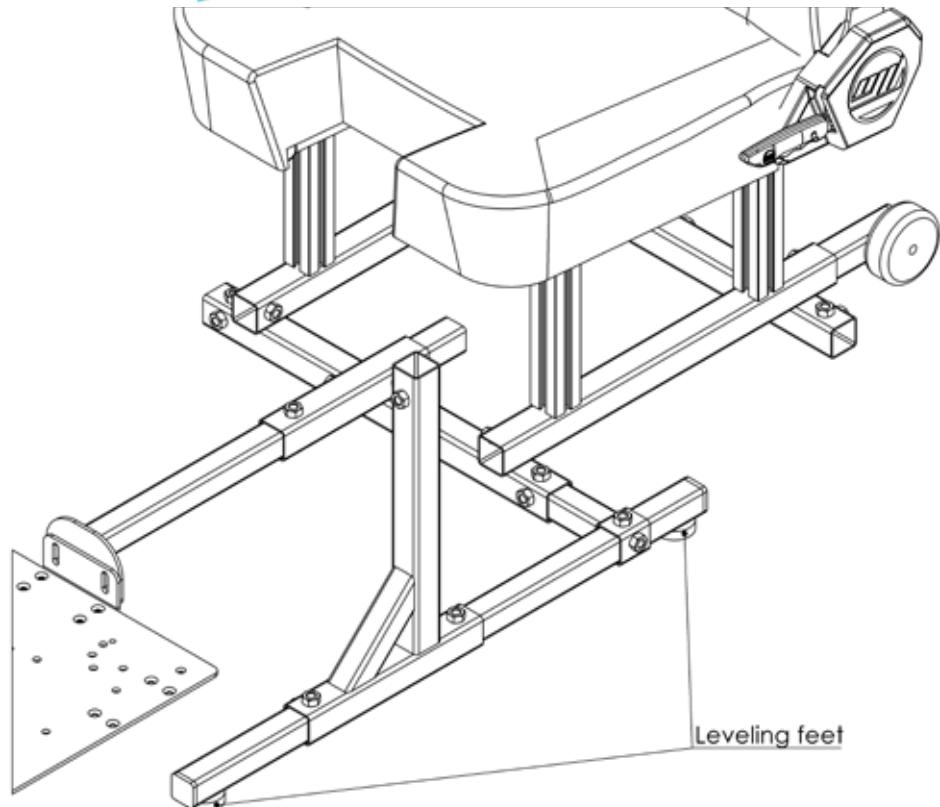
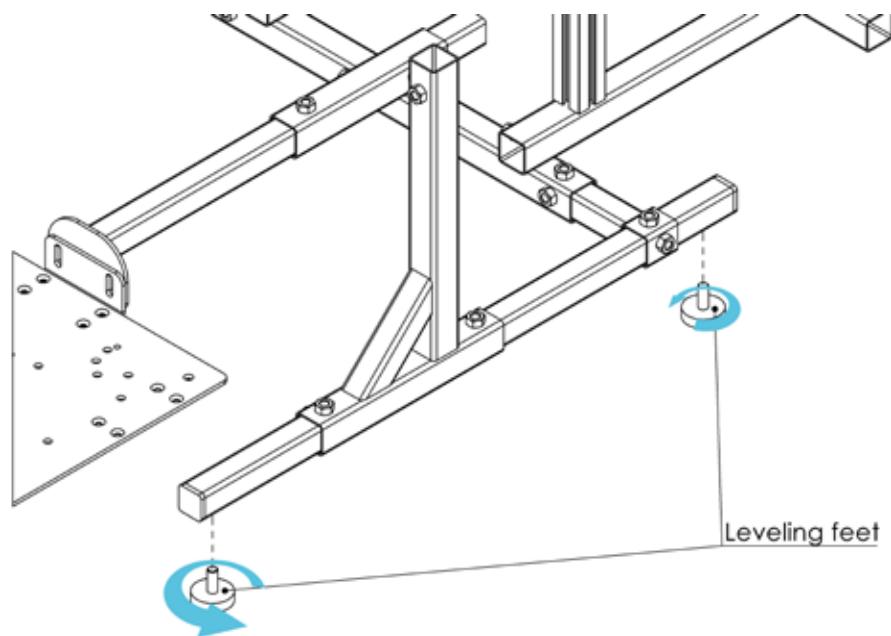
6. Install side support tube to short T-extension tube. Leveling feet are optional for hard wood floors and not required for carpet or soft floors. Set side support tube at approximately 3 inches from T-extension tube to end of side support tube. This setting will change later on if adjustment is necessary. Maintaining same assembly on each side of cockpit will ensure parallel and perpendicular relation between all tubes as being assembled.



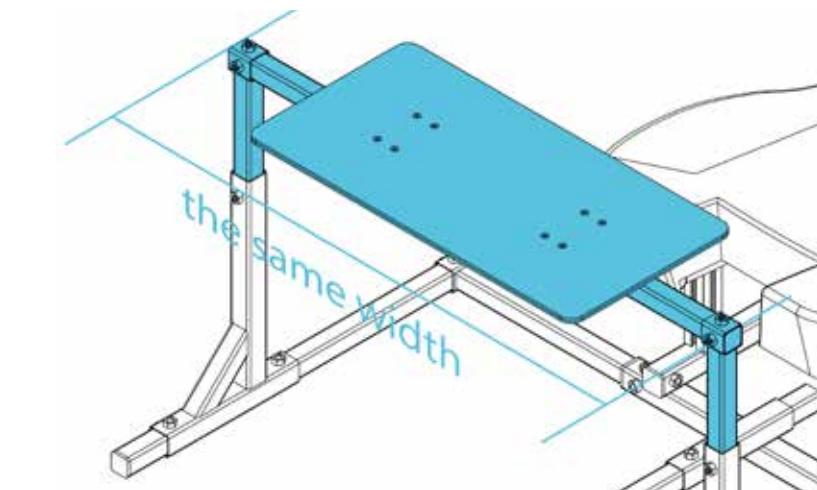
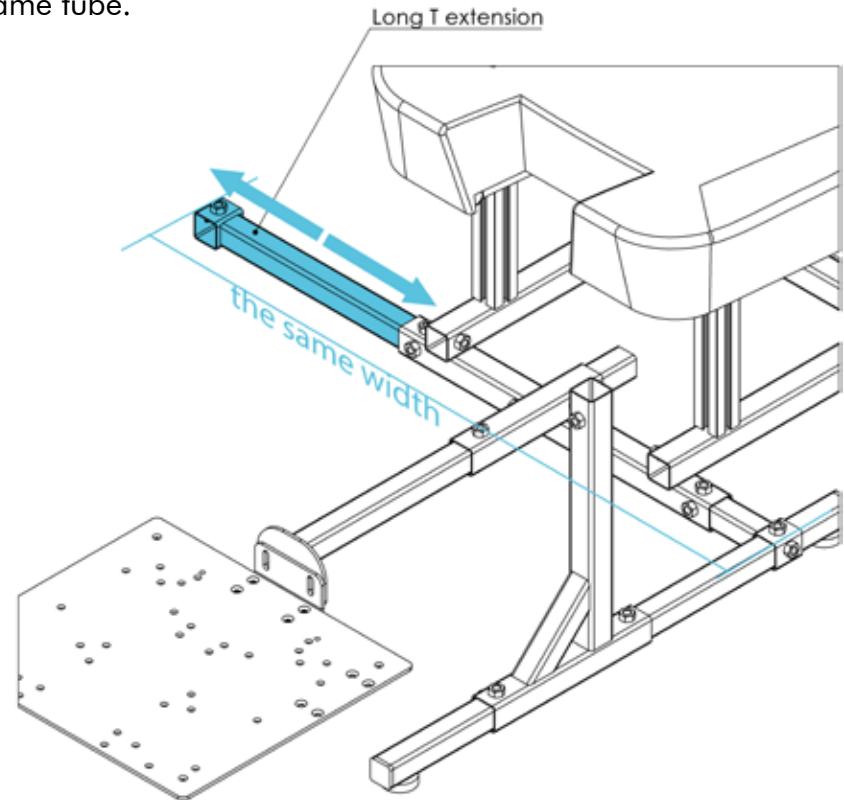
7. Slide upright post to side support tube as shown.



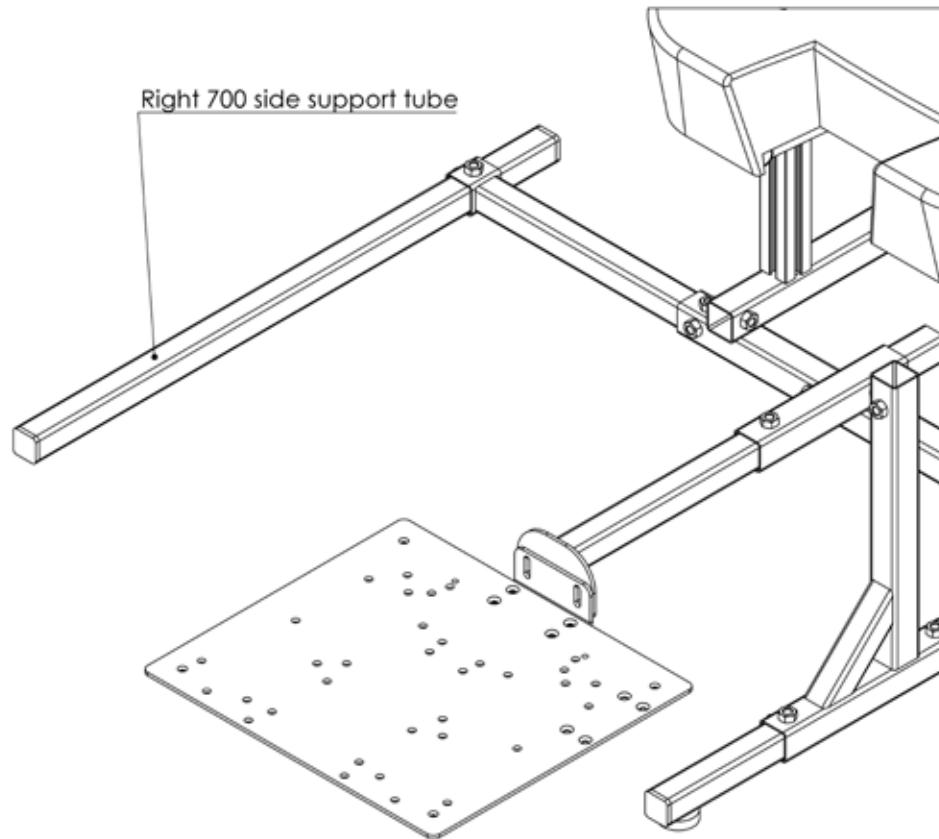
8. If leveling feet are used, they are normally screwed in all the way.



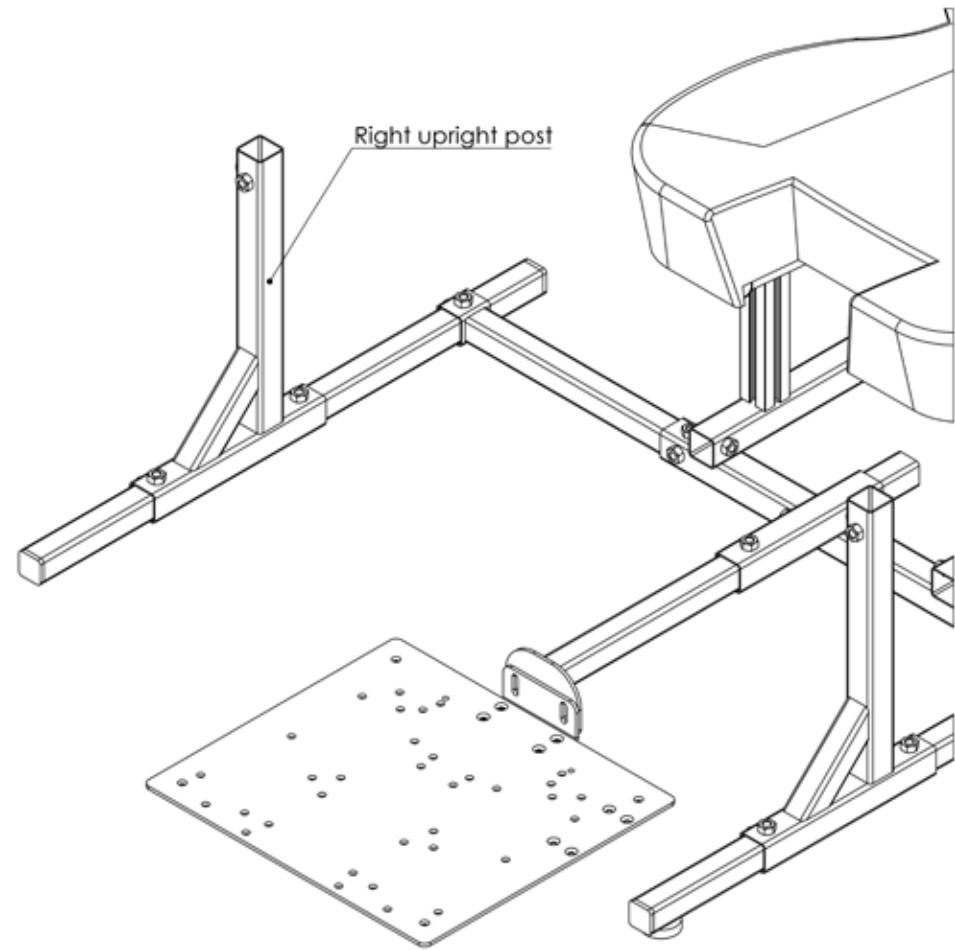
9. Install right side long T-extension. Use cross member tube as a reference how far the long T-extension should be extended out. Width should be approximately the same as full length of cross member tube. This will be adjusted later if needed. Tighten the set screws on frame tube.



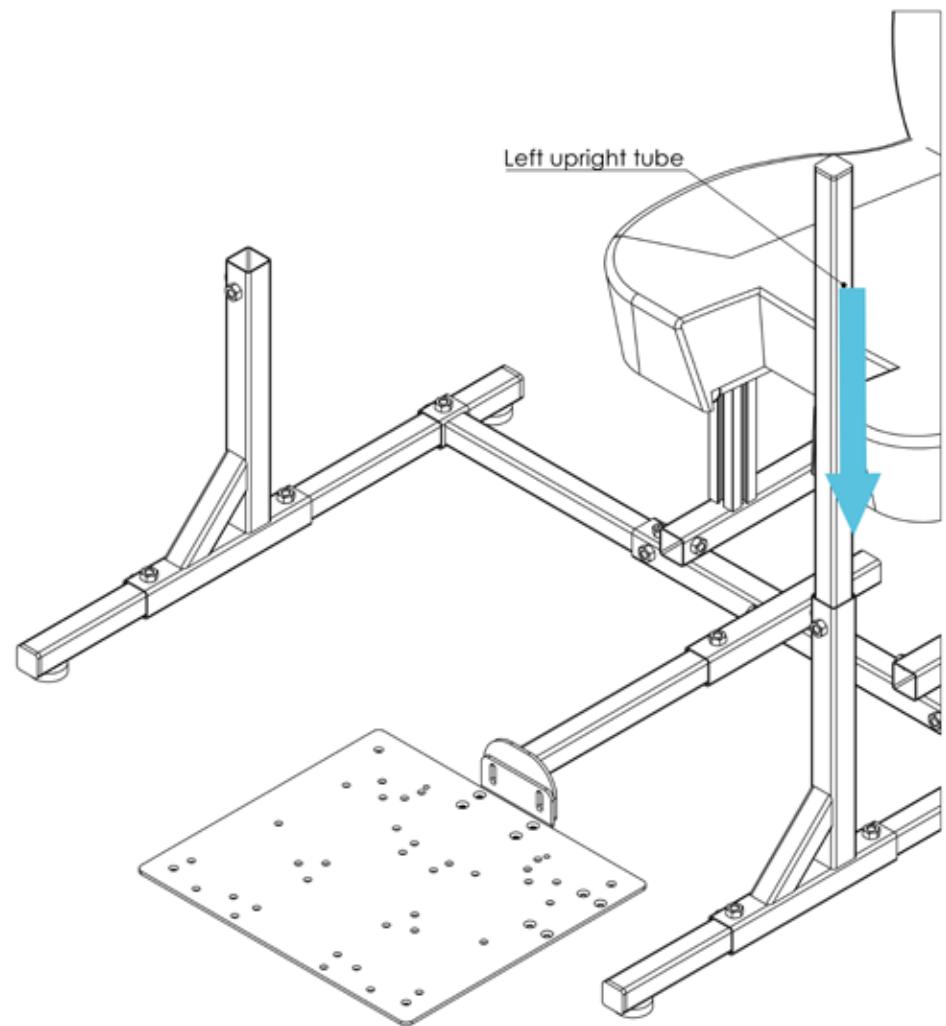
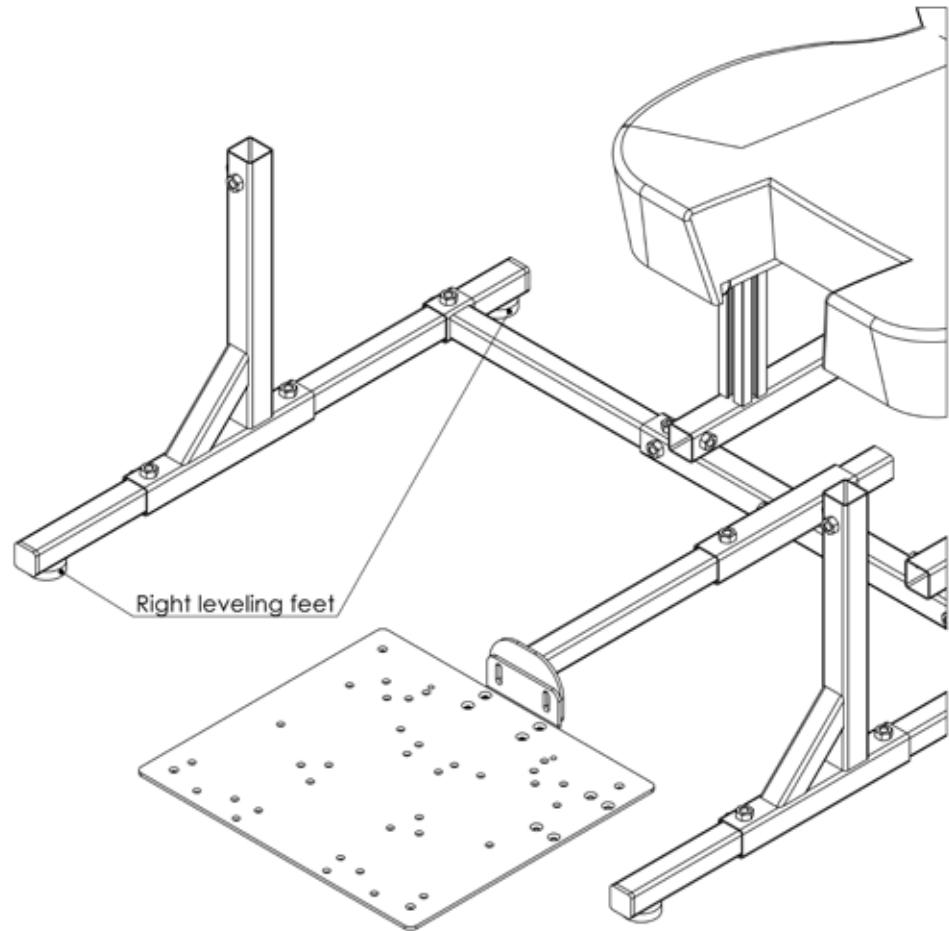
10. Install right side support tube, same way as left side.



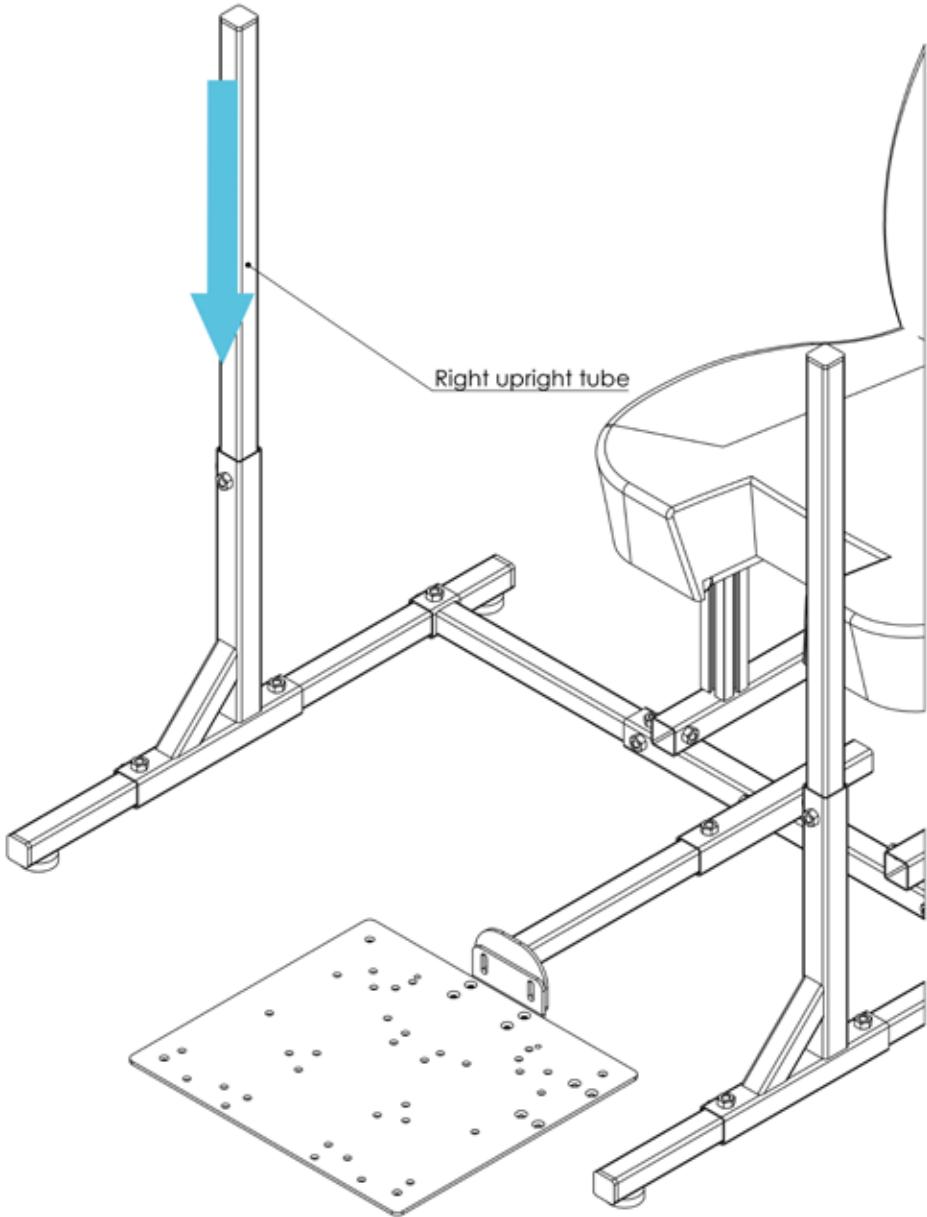
11. Install right side upright same way as left side. Ensure upright posts are installed at the same distance within the side support tube on both sides.



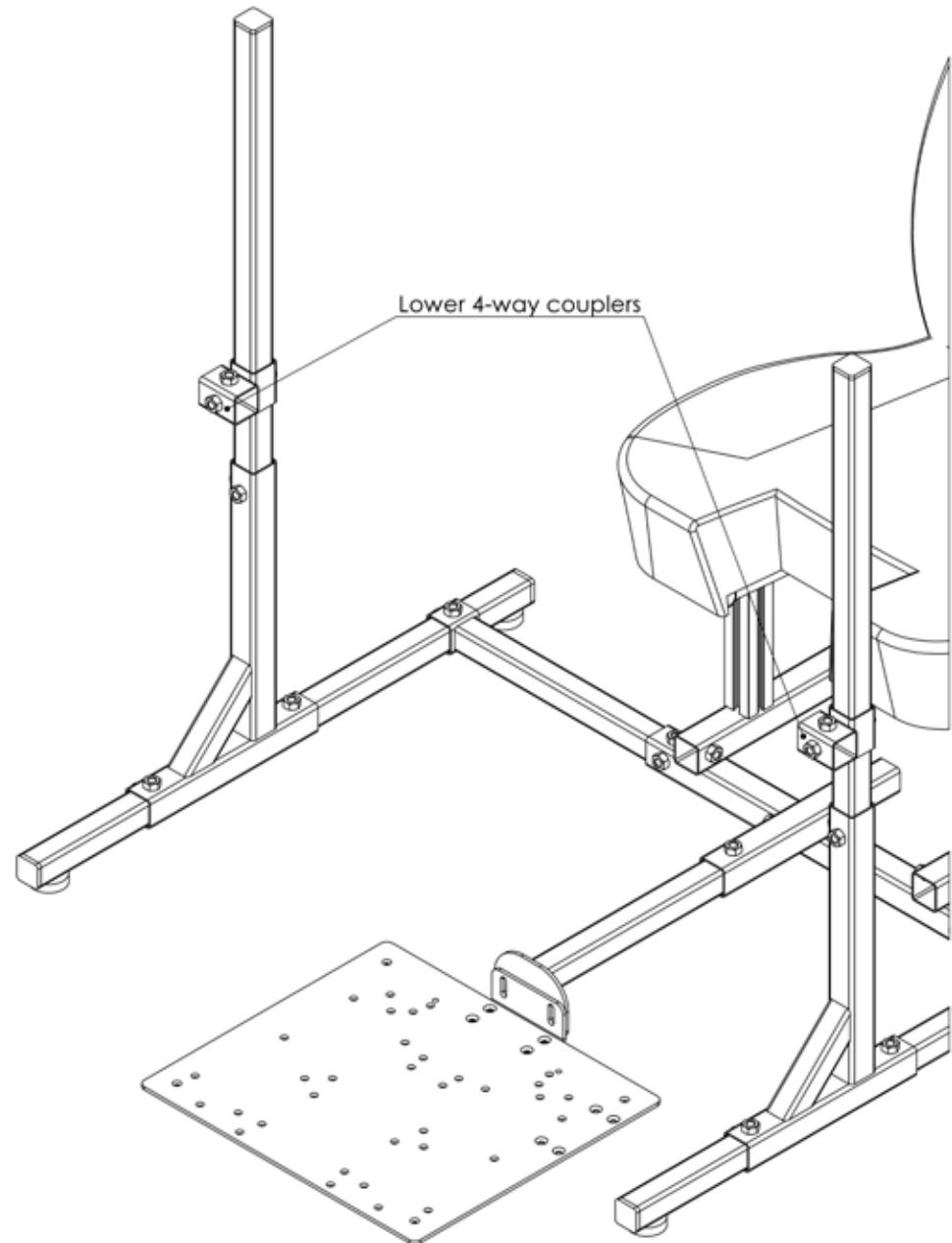
12. Install left side upright tube to left upright post all the way down until it bottoms out. Leave set screws loose.



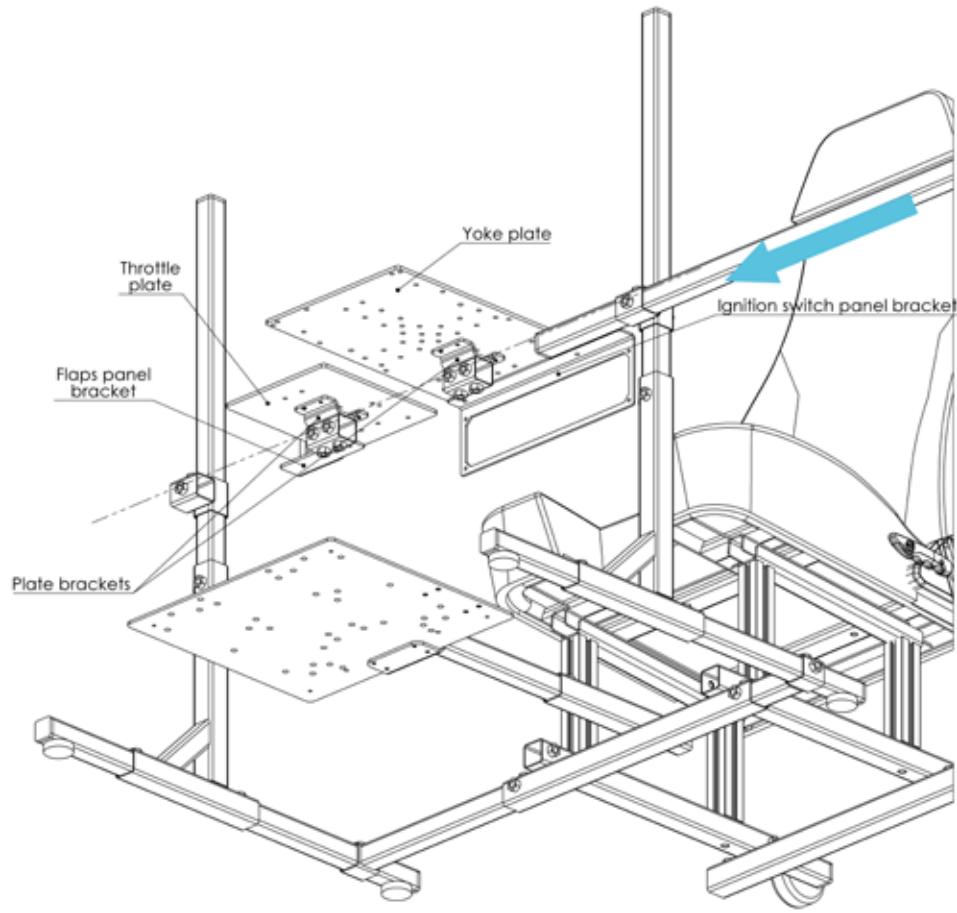
13. Install right side upright tube same way as left side.



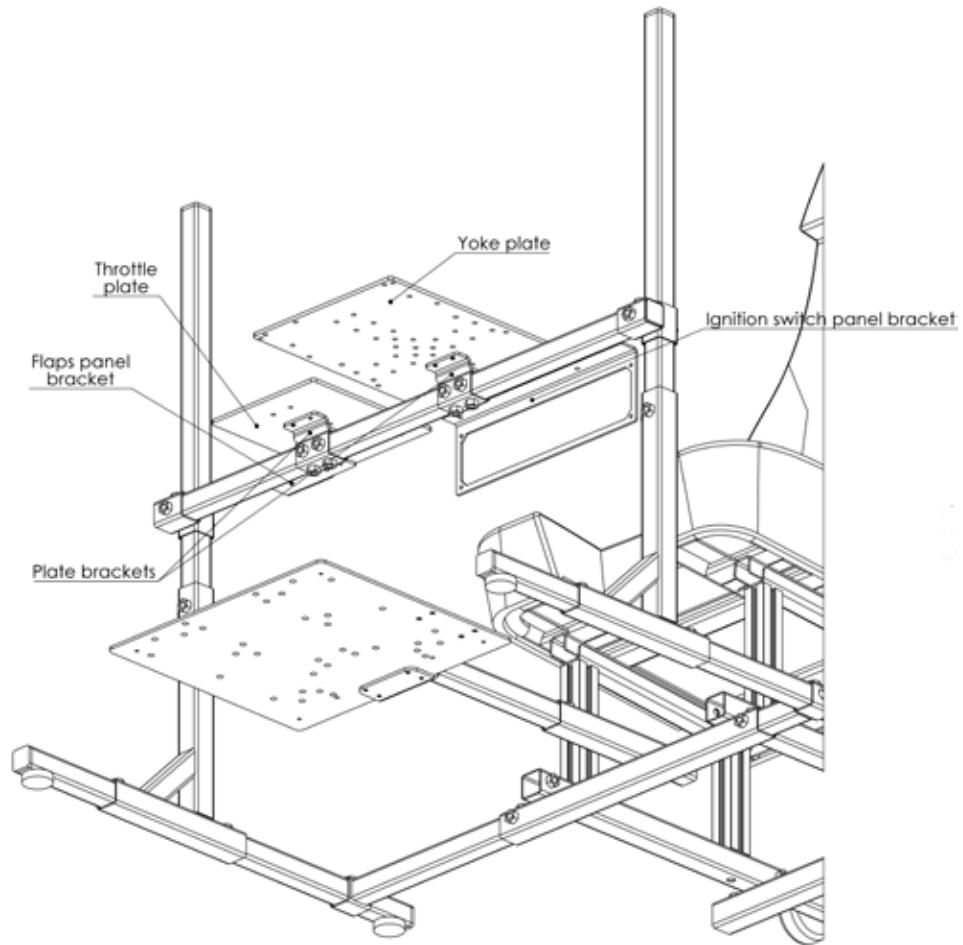
14. Install 4way couplers for main cross member in the direction as shown. Slide them all the way down until they bottom out on upright posts. Leave set screws loose.



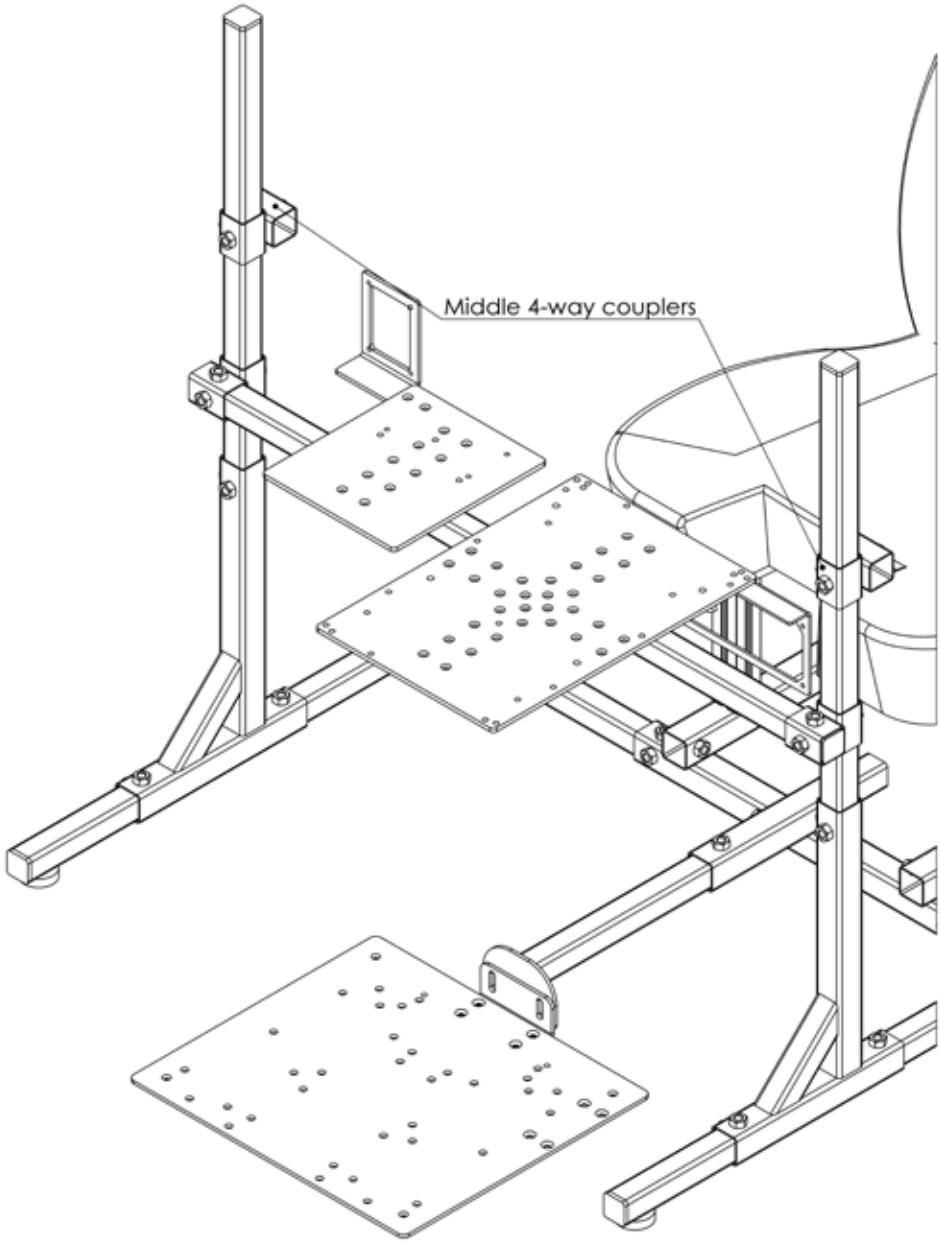
15. Side main cross member tube through one side 4way couple, then yoke, throttle plates and to the other 4way coupler. Leave all assemblies loose.



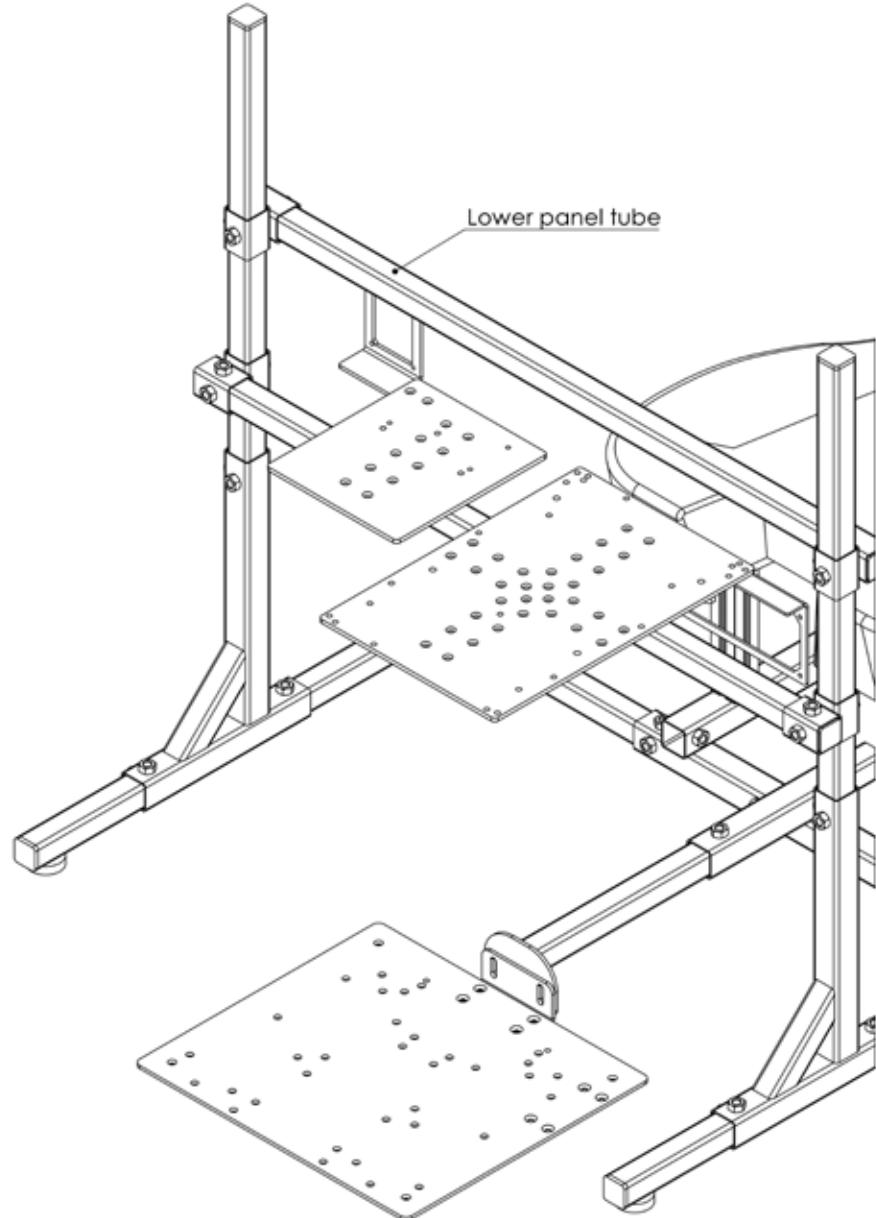
16. Readjust width of frame so cross member is about flush on both ends with end plastic caps and 4 way couplers.



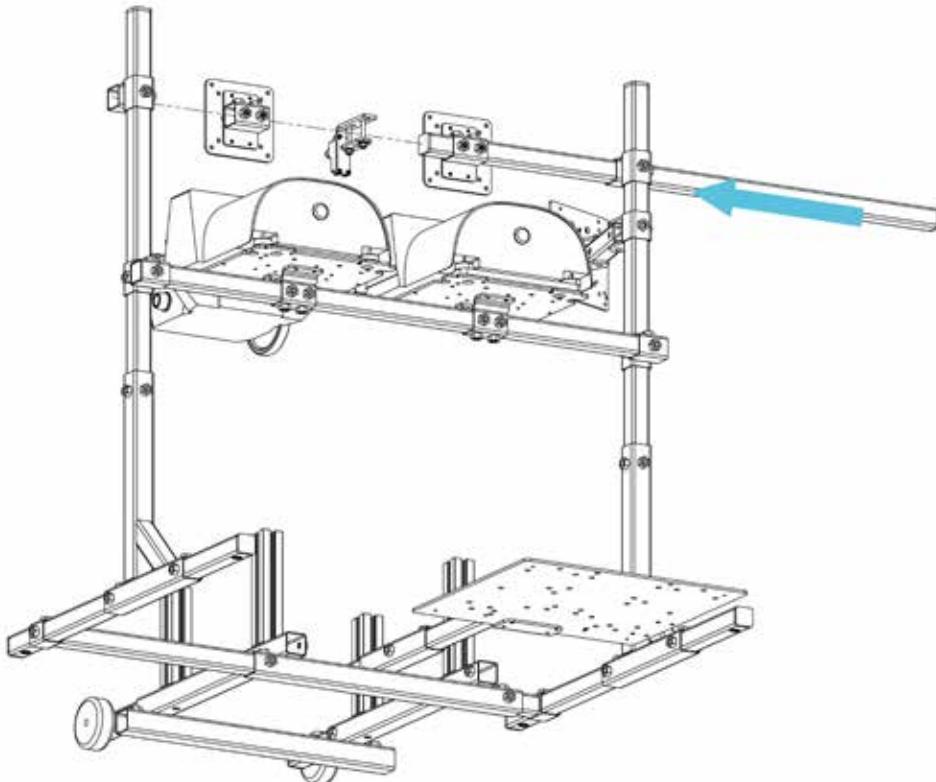
17. Slide avionics panel lower 4way couplers to upright tubes. Leave set screws loose. Ensure correct orientation of 4way couplers as shown.



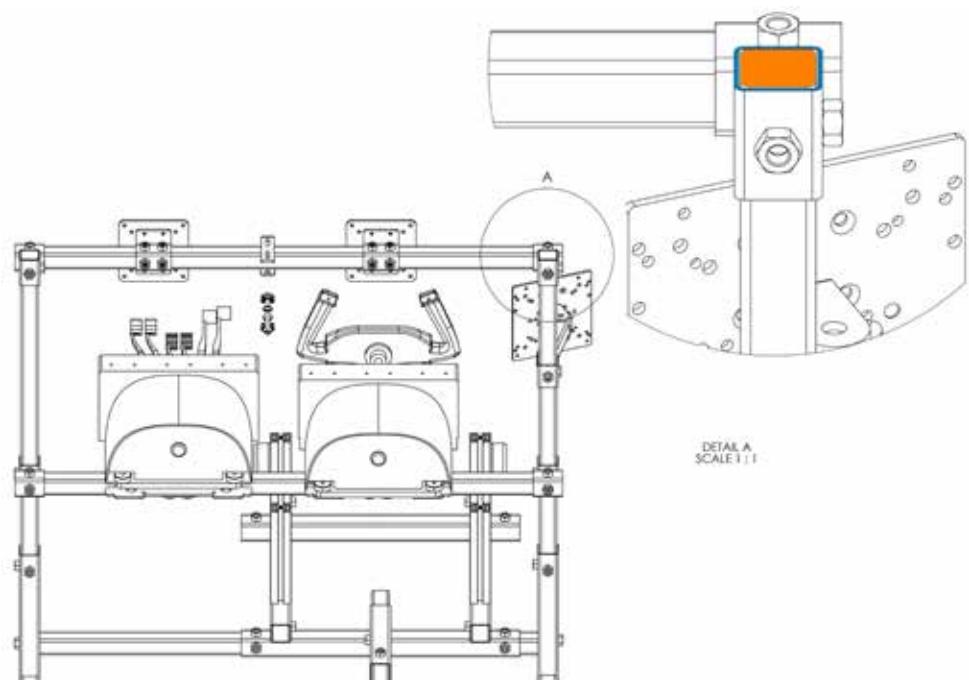
18. Slide lower cross member tube for avionics panel through couplers. Ensure correct direction and orientation of tube. Small threaded taps face the seat side. Taps are oriented on the lower side of the lower tube. The longer side of tube without taps is on the left hand side as seated. As shown in following illustrations..



18A. Installation of touch screens and Knobster switch bracket.  
Slide adapter brackets with VESA plate through touch screen cross member.

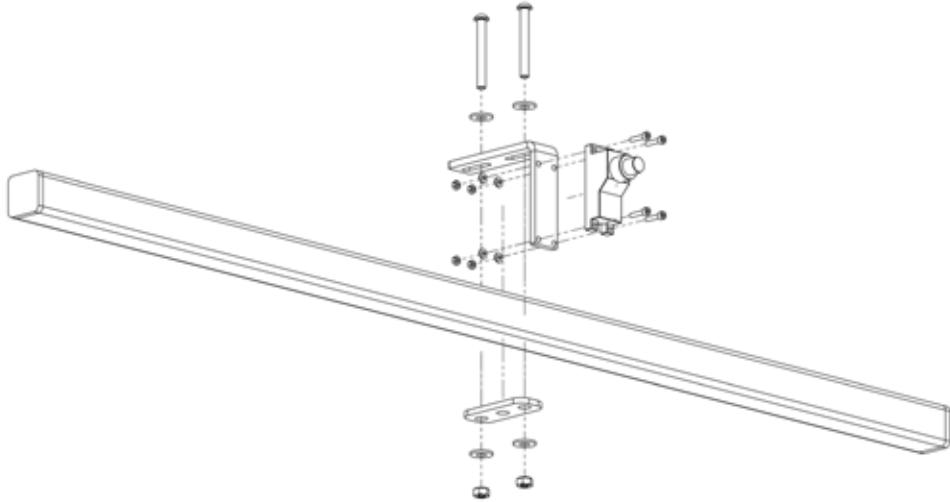


Align tube leveled with included Torpedo level and lock 4way couplers on vertical adjusters.  
To maintain framework squareness and plumbness, each end of tube end plastic cap should line up with edge of 4way coupler. Install monitors or touch screens.

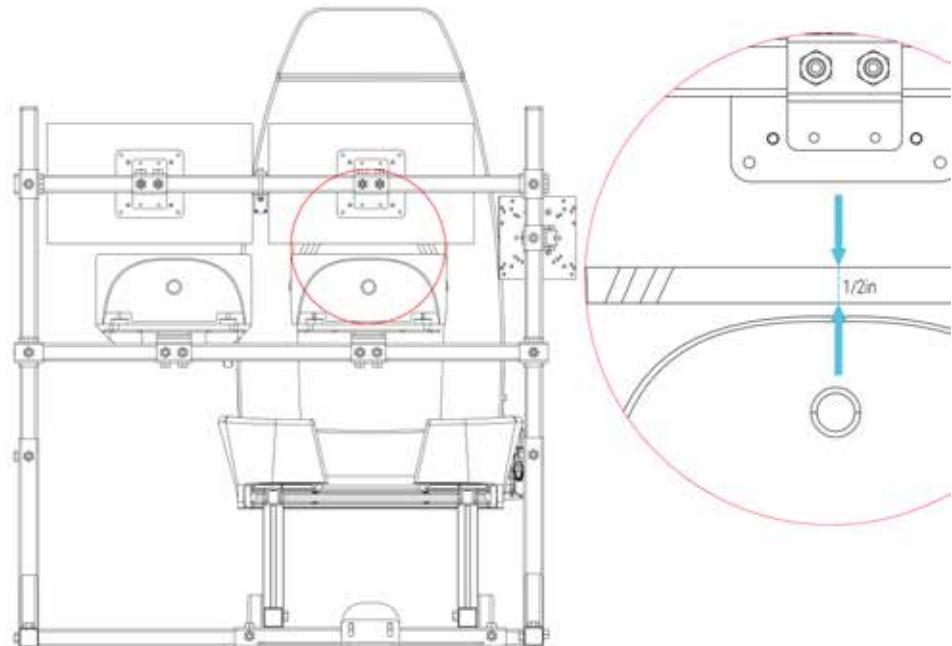


Adjust screens horizontally and leave enough room between them for Knobster bracket. Bracket can be clamped on any square tube, part of cockpit air frame, however the manual illustrates mounting between two screens.

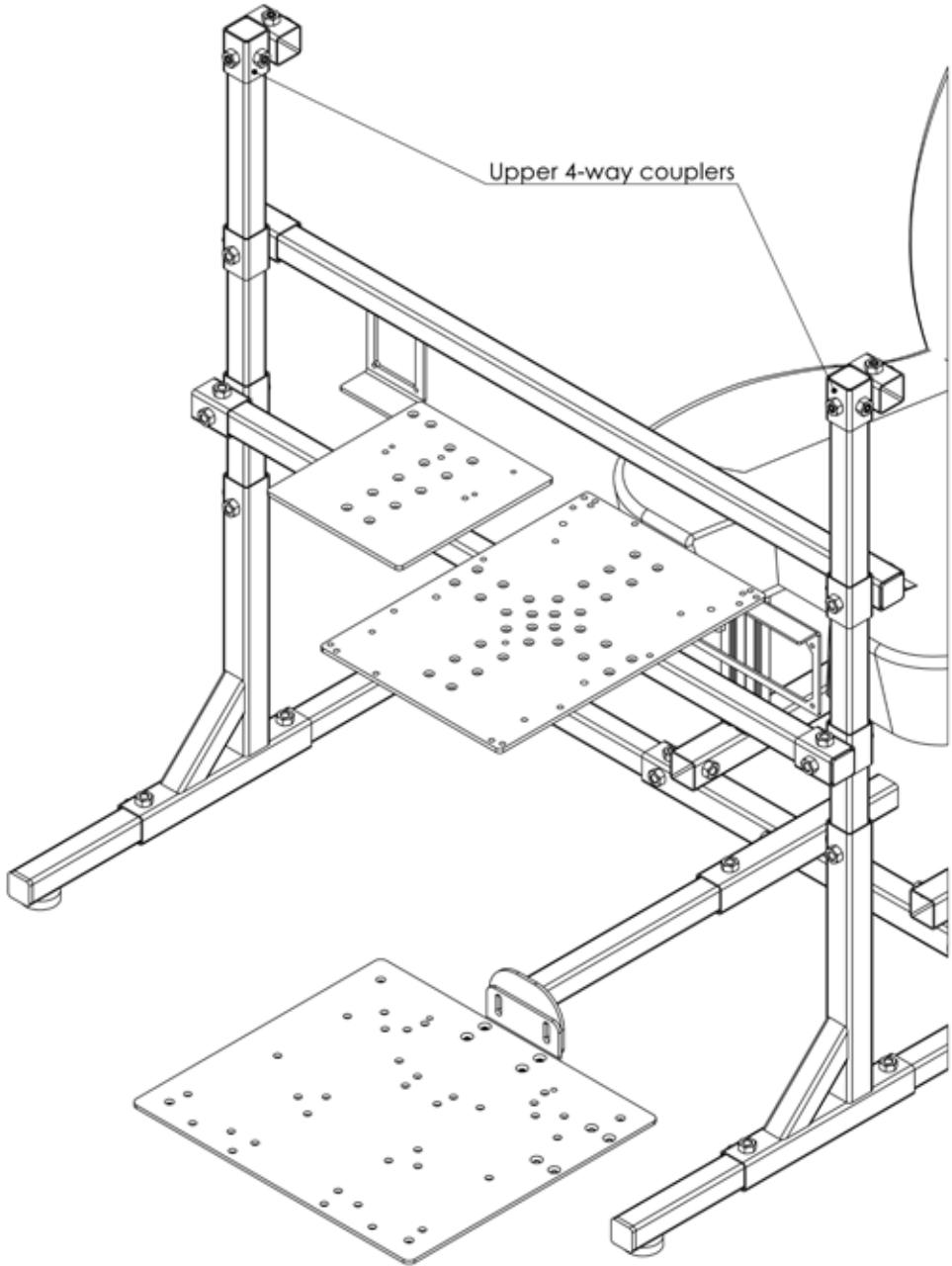
Use three hole tab to clamp Knobster bracket. Ensure clamping bolts are equally tight and not overtightened to avoid bending the bracket.



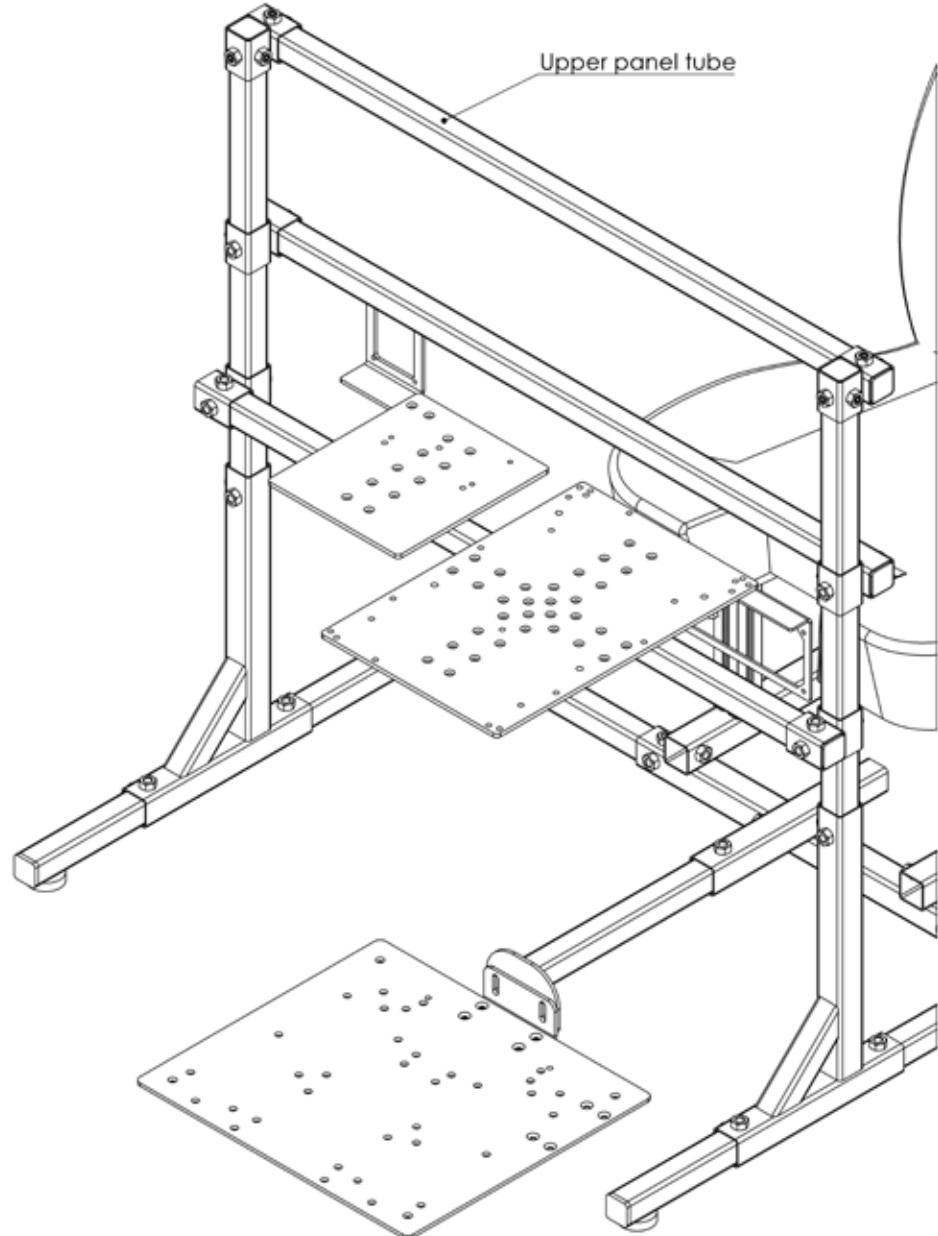
Adjustment of all brackets and framework is explained in following section of the manual. As a temporary step, ensure screens bottom bezels are approximately 1/2in. apart from the highest point of yoke, throttle quadrant or any additional switch/ control device mounted on yoke cross member.



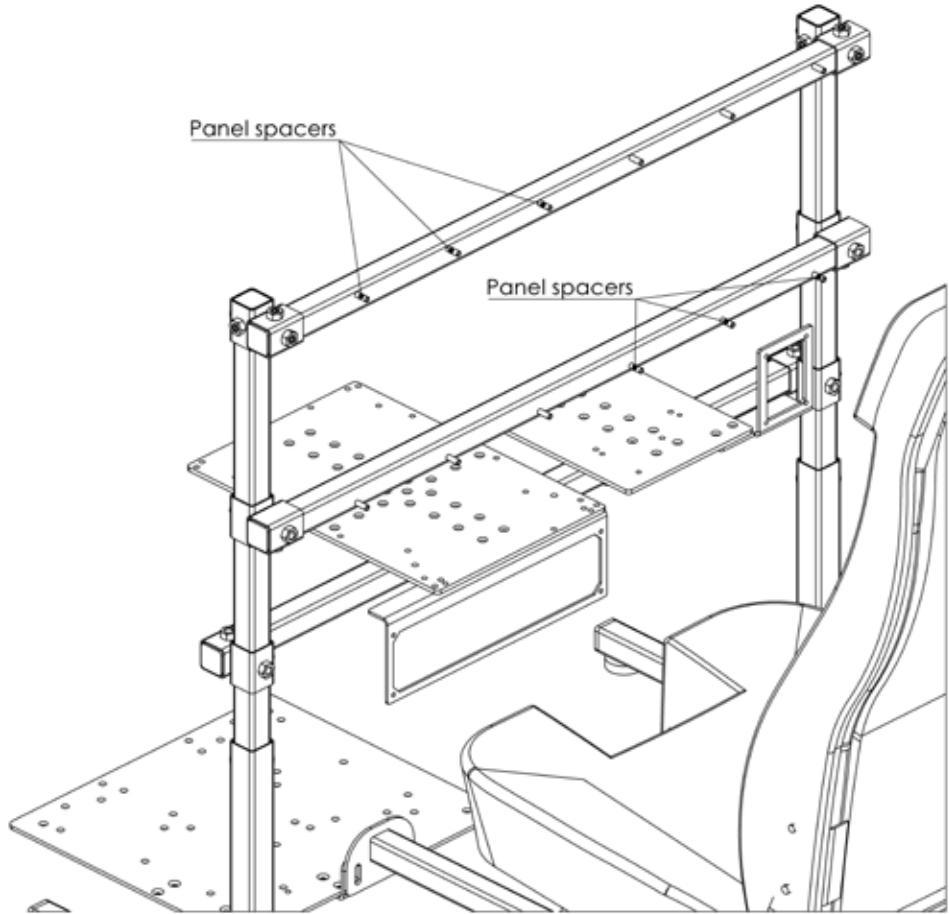
19. Slide upper 4way couplers for avionics panel. Ensure correct orientation of couplers as shown. Tighten set screws to upright tubes with 4way couplers top edge flush with plastic end cap of vertical tubes.



20. Slide avionics panel upper tube through upper 4way couplers. Leave set screws holding upper cross member tube loose. Ensure correct orientation of upper tube. Threaded tabs are oriented on the upper side of the tube. The longer side of tube without threaded tabs is on the left side as seated.



21. Install brass stand-off spacers to upper and lower avionics panel tubes.



22. Install avionics panel to upper tube by using black screws, pre-screwed to brass stand off spacers. Slide up the lower avionics cross member tube with 4way couplers until it matches the lower holes of avionics panel. Install lower screws. Do not over tighten screws to avoid stripping the threads.

23. While keeping both avionics panel cross tubes flush with their 4way couplers, tighten all the rest set screws on all 4way couples.

24. Tighten set screws on main cross member tube and also keep ends of tube flush with its 4way couplers.

25. Loosen set screws at the T extensions so they can re-adjust and keep the entire frame square, parallel and plumb.

26. Use tape measure to ensure side tubes are parallel and upright tubes are also parallel.

27. Once all is parallel re-tighten T-extensions.

28. Tighten all set screws on the upright posts.

\* To ensure frame is square, straight and plumb the main cross member holding yoke and throttle should slide up and down freely when loosen 4way coupler screws. Avionics panel should also slide up and down freely after loosening couples set screws.

29. Re-adjustment Main cross member. Adjust height of main cross member tube. 2nd person holding the tube si recommended while using the included torpedo level to level it. While seated adjust tube. Ensure when yoke is turned it is at comfortable height. Adjust yoke at center of seat. Adjust throttle assembly at comfortable distance from yoke and arm reach.

Adjust avionics panel. Panel should be at lowest position while keeping clearance from highest point of controls on the main tube. Usually the yoke is the highest control. If more height is needed, loosen up upright post set screws and adjust upright tubes higher while adjusting entire assembly up (avionics panel and yoke at once). 2nd adjustment on each component may be necessary. Rudder plate adjustment and side clearance.

If rudders are too close to left side upright post, extend left side, shorter T-extension and slide into the frame the right side long T-extension.

Exit and entry of cockpit. During adjustment, ensure seat sliders are set approximately at mid point position. To exit or enter cockpit slide seat all the way back.

For any assistance with assembly or questions, please feel free to reach out at our toll free line: 1-888-299-2746 or direct line: 954-478-9112 with available text messages, photos etc.

**This sequence outlines the steps for properly adjusting and securing controls and components in a cockpit setup. Here's a concise summary of the adjustments for clarity:**

**1. Pre-installation Checks:**

- o Ensure all controls and parts are installed securely.
- o Verify that the framework is plumb and square.

**2. Seat Position:**

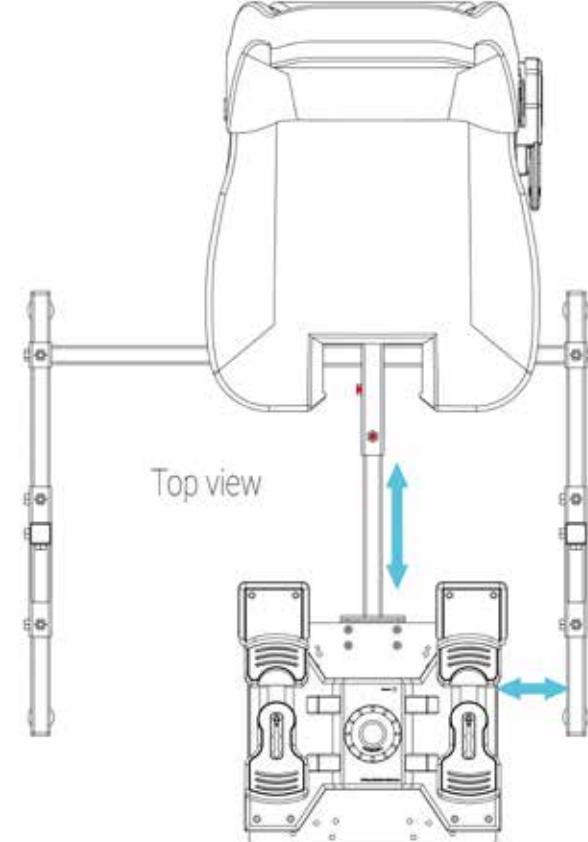
- o Set seat sliders to the midpoint of their travel.

**3. Recliner Angle:**

- o Adjust to the pilot's most comfortable preference.

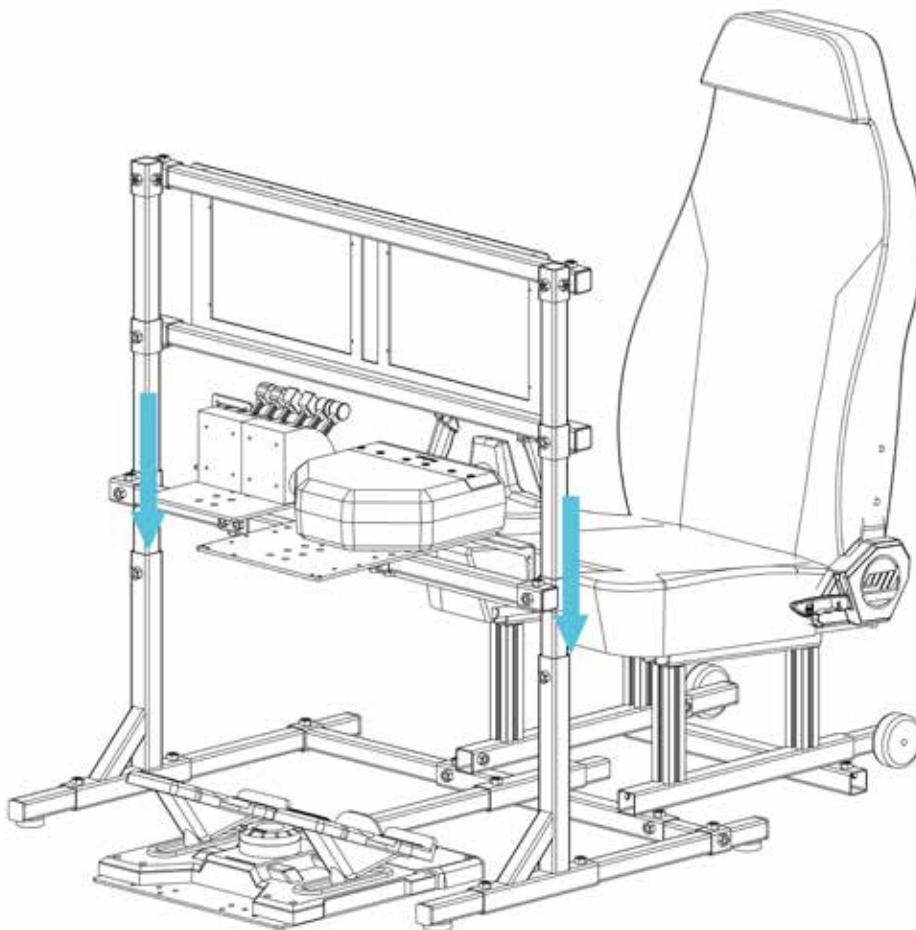
**4. Rudder Pedals:**

- o Set foot reach according to the pilot's optimal preference.



## 5. Vertical Columns:

- o Adjust all the way down until upright columns bottom out against the upright posts.

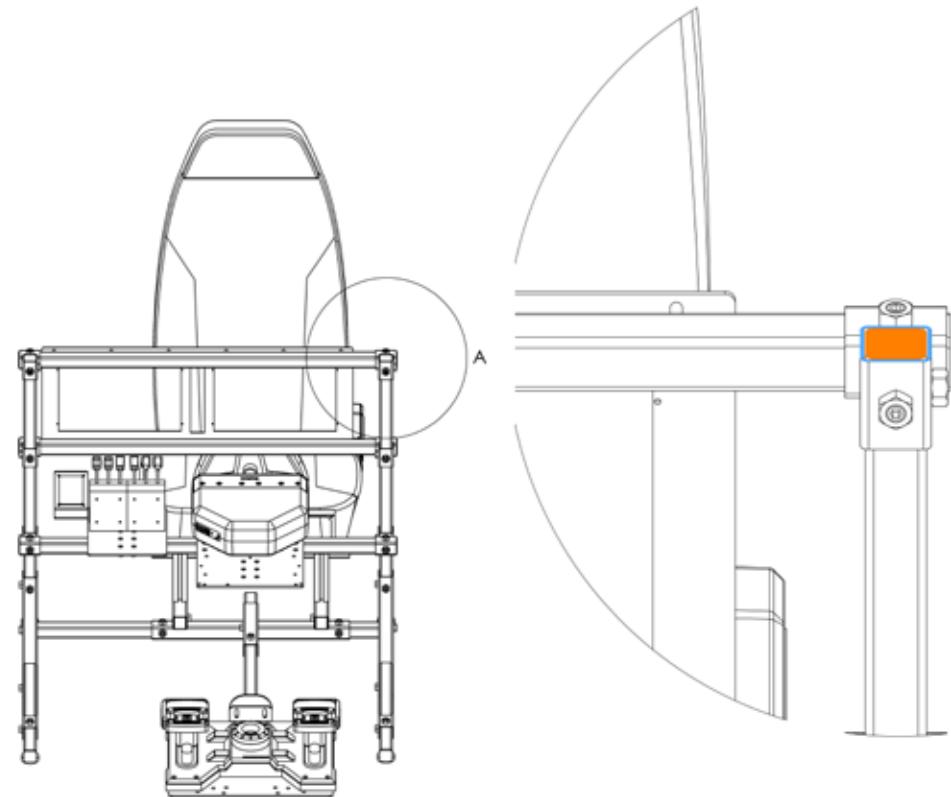


## 6. Avionics Panel Setup:

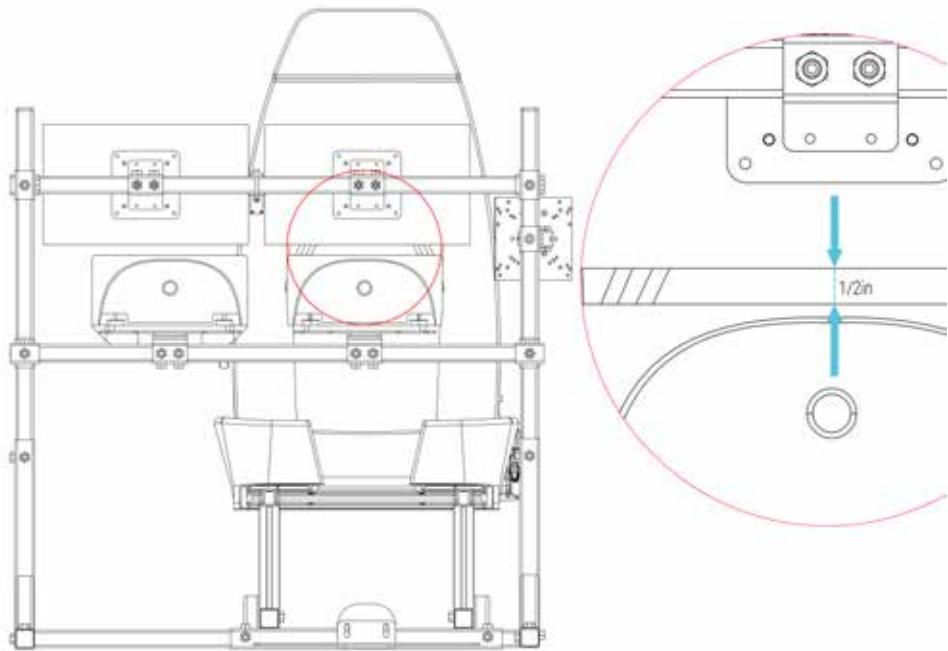
Set avionics panel by tightening sets screws on each side 4way couplings.

- 2nd person helping with alignment and keeping cross bar leveled while loosening and tightening set screws is required.

6.1. Adjust pair of horizontal cross members holding avionics panel face plate with top bar 4way couplings aligned to vertical columns end plastic caps. Place Torpedo level on top of upper cross member and micro-adjust so tube is leveled.

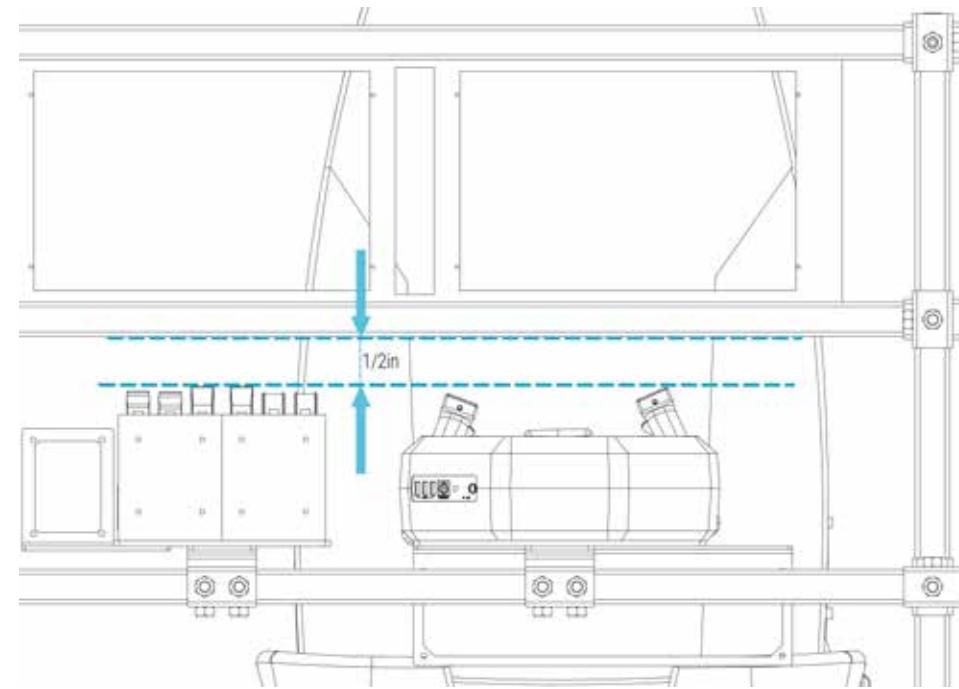


6.2. For touch screens, defining height factor is clearing knees and yoke. Lower bezel of touch screens is approximately 1/2 in. above highest point of yoke or throttle quadrant.



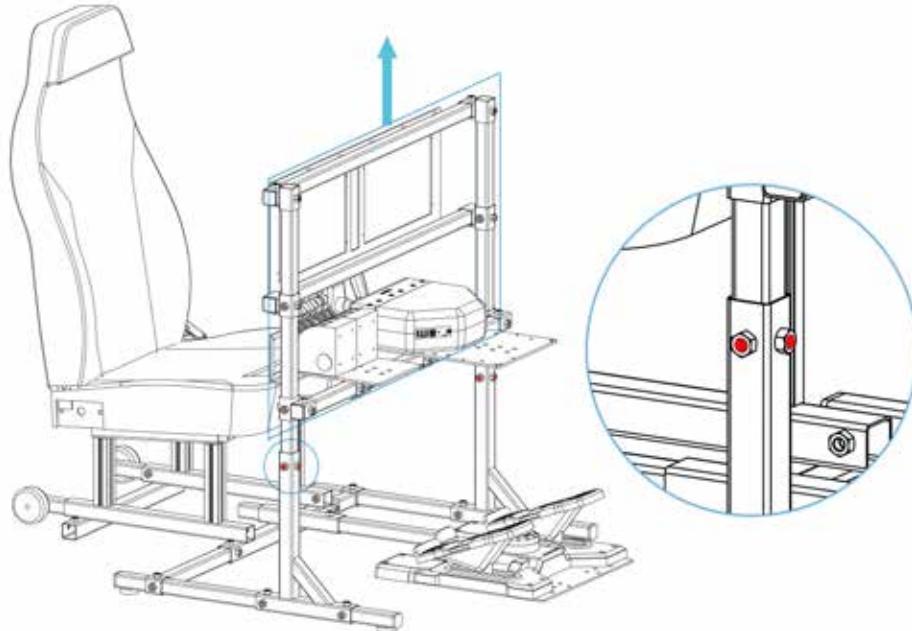
#### 7. Yoke cross Bar Adjustment:

- o Set the crossbar holding the yoke and throttle quadrant with about  $\frac{1}{2}$  inch clearance between highest control (yoke or throttle quadrant) and bottom edge of avionics panel.



## 8. Frame Height Adjustment:

Loosen set screws holding vertical columns to upright posts. While pilot is seated, 2nd person starts lifting up the entire frame holding both avionics panel and yoke cross bar. Lift it up while keeping Torpedo level on either one of horizontal members and maintaining level. Yoke should be at height where pilot can turn the yoke all the way without obstructing legs while feet are resting on rudder pedals.



## 9. Tightening the Frame:

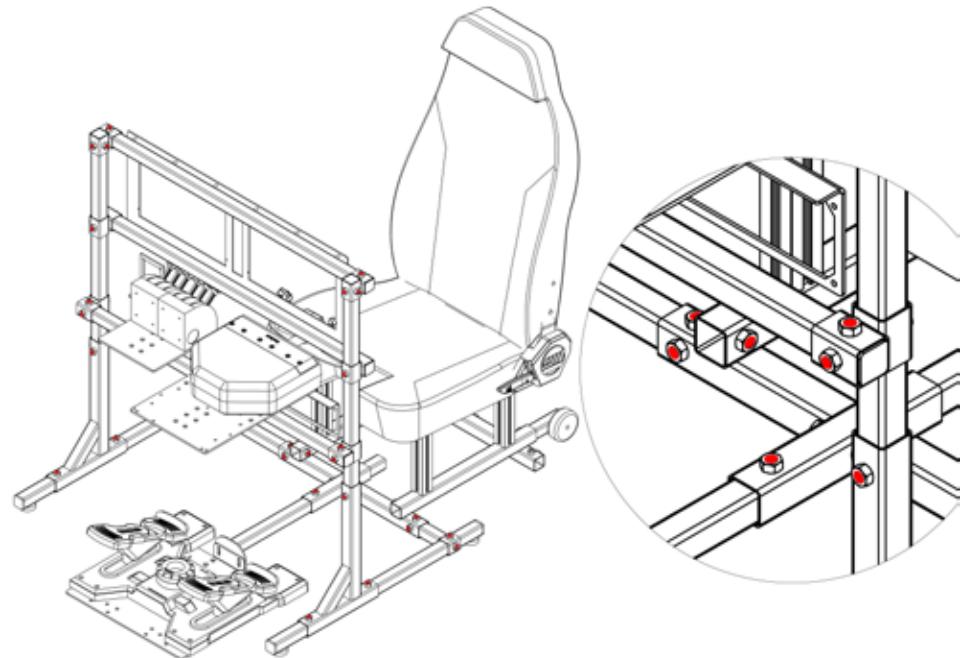
o While the frame is leveled, the pilot tightens the set screws on the upright posts and vertical columns.

## 10. Final Seat Adjustment:

o Use the seat slider for comfort and ease of entry/exit.

## 11. Final Checks:

o Ensure all set screws are tight but not over-tightened to prevent damage.



Following these steps will help ensure that all components are properly adjusted for safety and comfort.

## Specifications:

Recliner: max: 170 degrees

Construction: tubular steel frame with elastic strap supports

Seat Materials: high-density cold cure foam filling; Fabric, Steel chassis

## Instructions during use and care:

Move simulator around with caution to avoid collision.

Keep out of direct sunlight and outdoor use.

Watch fingers when adjusting recliner.

Placing heavy or sharp objects on the seat may damage the surface material.

Do not use abrasive or chemically aggressive materials on the seat.

Use dry cloth or soft brush to clean the chair.

## Dimensions:



## Warranty Information

### Return Policy

### Terms And Conditions

<http://homeracer.com/ow-termsandconditions.html>

