

**WARNINGS**

Before you begin assembling this simulator, please read all installation instructions and warnings thoroughly.

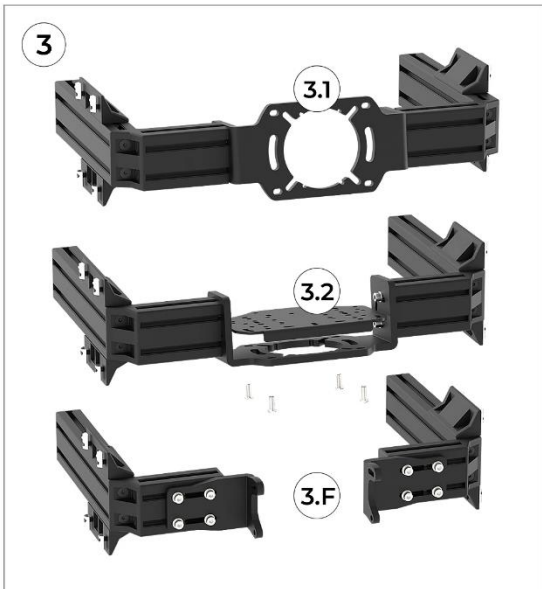
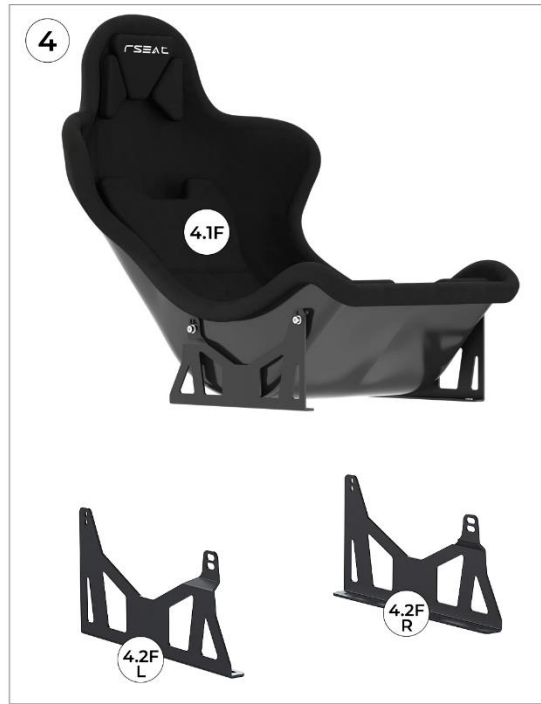
**FAILURE TO COMPLY WITH OR OBSERVE ALL ASSEMBLY, SAFETY AND OPERATION INSTRUCTIONS AND WARNINGS REGARDING THE USE OF THIS PRODUCT MAY RESULT IN SERIOUS BODILY INJURY.**

This simulator complies with the prescribed safety regulations. Inappropriate use may cause damage to persons and simulator.

**ASSEMBLY INSTRUCTION**

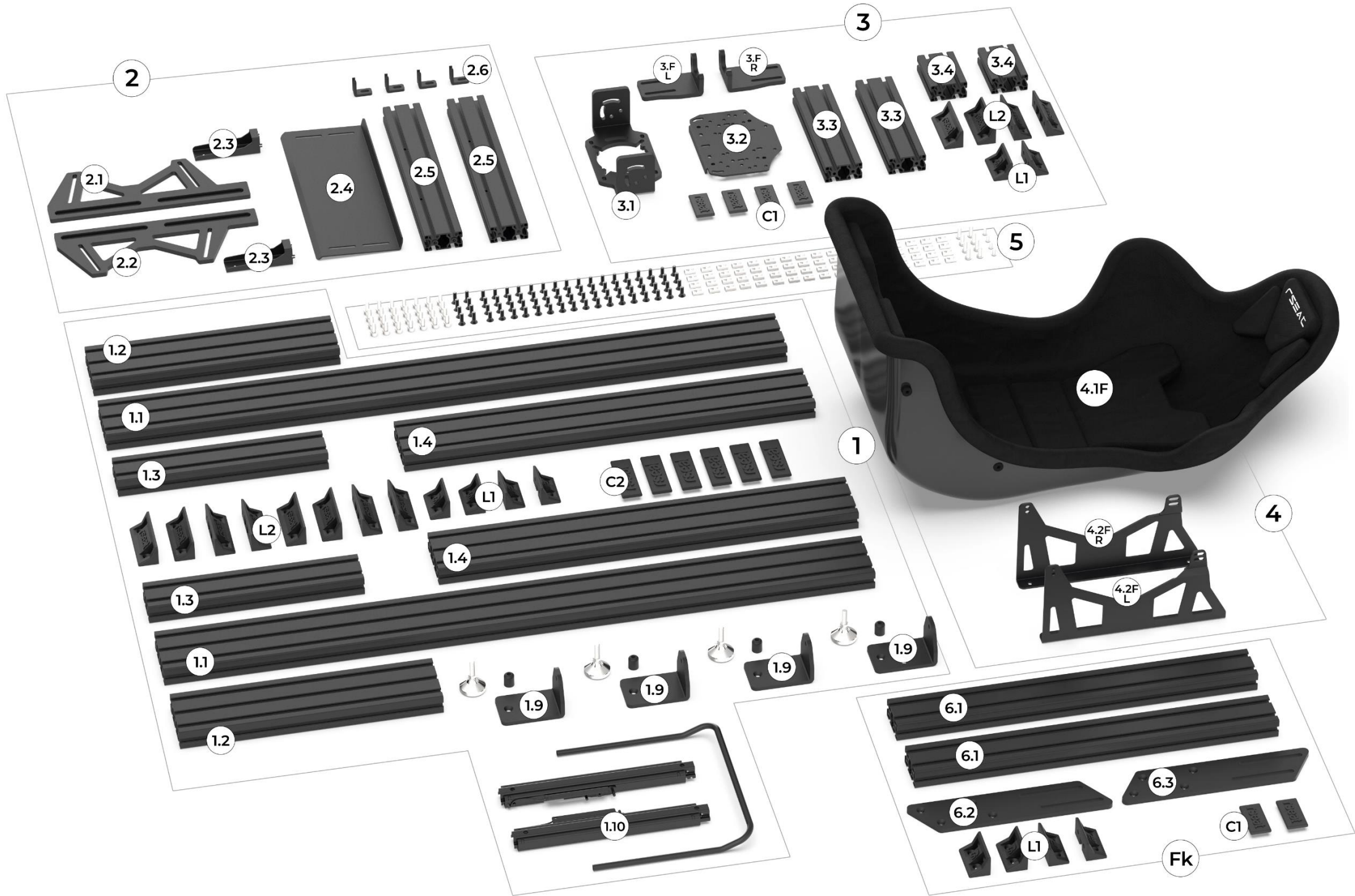
revision 02 / 01.2024

**A1-120 Formula**



1	AI-120 Formula Chassis with seat sliders and adjustable feet
2	Pedal tray assembly with heel support
3.a	Front Wheelbase mount support
3.b	Bottom Wheelbase mount support
3.c	Dedicated Fanatec Wheelbase Side Mount support
4.1F	Seat (optional) RSEAT Formula or Sparco GP seat
4.2F-L	Seat side mount support bracket Left
4.2F-R	Seat side mount support bracket Right
5	Tools, T-Nuts, bolts and hardware for the assembly
Fk	Formula Kit





## 1 Chassis

1.1 x 2pcs	Profile 120x40 L1380mm
1.2 x 2pcs	Profile 120x40 L500mm
1.3 x 2pcs	Profile 80x40 L420mm
1.4 x 2pcs	Profile 120x40 L820mm
L2 x 8pcs	L-Bracket H120mm
L1 x 4pcs	L-Bracket H80mm
C2 x 6pcs	Plastic End cap H120mm
1.9 x 4pcs	Adjustable feet kit
1.10 x 4pcs	Pair of Seat sliders left and right

## 2 Pedals Tray

2.1 x 1pcs	Pedals tray side bracket L (left)
2.2 x 1pcs	Pedals tray side bracket R (right)
2.3 x 2pcs	Heel tray support brackets
2.4 x 1pcs	Heel tray
2.5 x 2pcs	Profile 80x40 L480mm
2.6 x 4pcs	Pedals bottom mount support brackets

## 3 Wheelbase Mount

3.1 x 1pcs	Wheelbase front mount / main bracket
3.2 x 1pcs	Wheelbase bottom mount / add-on bracket
3.F x 1 pair	Fanatec side mount left and right brackets
3.3 x 2pcs	Profile 80x40 L120mm
3.4 x 2pcs	L-Bracket H80mm
L1 x 2pcs	L-Bracket H120mm
L2 x 4pcs	Plastic End cap H80mm
C1 x 4pcs	

## 4 Seat and Seat Brackets

4.1F x 1pcs	Seat (optional)
4.2F-L x 1pcs	Seat side mount support Bracket Left
4.2F-R x 1pcs	Seat side mount support Bracket Right

## 5 Fasteners and tools

SN x 134pcs	T-Nut M8 with ball insert
B1 x 100pcs	M8x16 countersunk
B2 x 20pcs	M8x20 countersunk
B3 x 8pcs	M8x30 din 912
B5 x 30pcs	M8x16 din 912
B6 x 8pcs	M8x20 din 912
B15 x 4pcs	M6x12 button head
B16 x 4pcs	M6x16 button head
B17 x 8pcs	M8x20 button head
H4 x 1pcs	No.4 Hex Key
H5 x 1pcs	No.5 Hex Key
H6 x 1pcs	No.6 Hex Key
W14 x 1pcs	No.14 Wrench

## 6 Formula Kit

6.1 x 2pcs	Profile 80x40 L700mm
6.2 x 1pcs	Pedals Extension <b>Bracket L</b>
6.3 x 1pcs	Pedals Extension <b>Bracket R</b>
L1 x 4pcs	L-Bracket H80mm
C1 x 2pcs	Plastic End cap H80mm

**NOTE:** Wheelbase mounts (3) as well Seat Brackets (4) are selectable at checkout and only the selected version is included.



## Inserting T-Slot-Nuts:

All feature Roll in T-Nut with Ball Spring- M8 thread. It loads either from the profile ends or side. The nut can be easily rolled into the T-Slot. This helps where the profile ends are inaccessible (for example, installing accessories later on) The ball with a spring inside the nut, fixate it into place. It is self-aligning, so the thread will always be in the middle of the T-slot and will not fall down the T-Slot even if it's in vertical position when assembling the chassis (easy for the assembly).

## Roll into T-Slot

**Step 1:** Put the T-Nut (part SN) into the T-Slot channel in horizontal position.

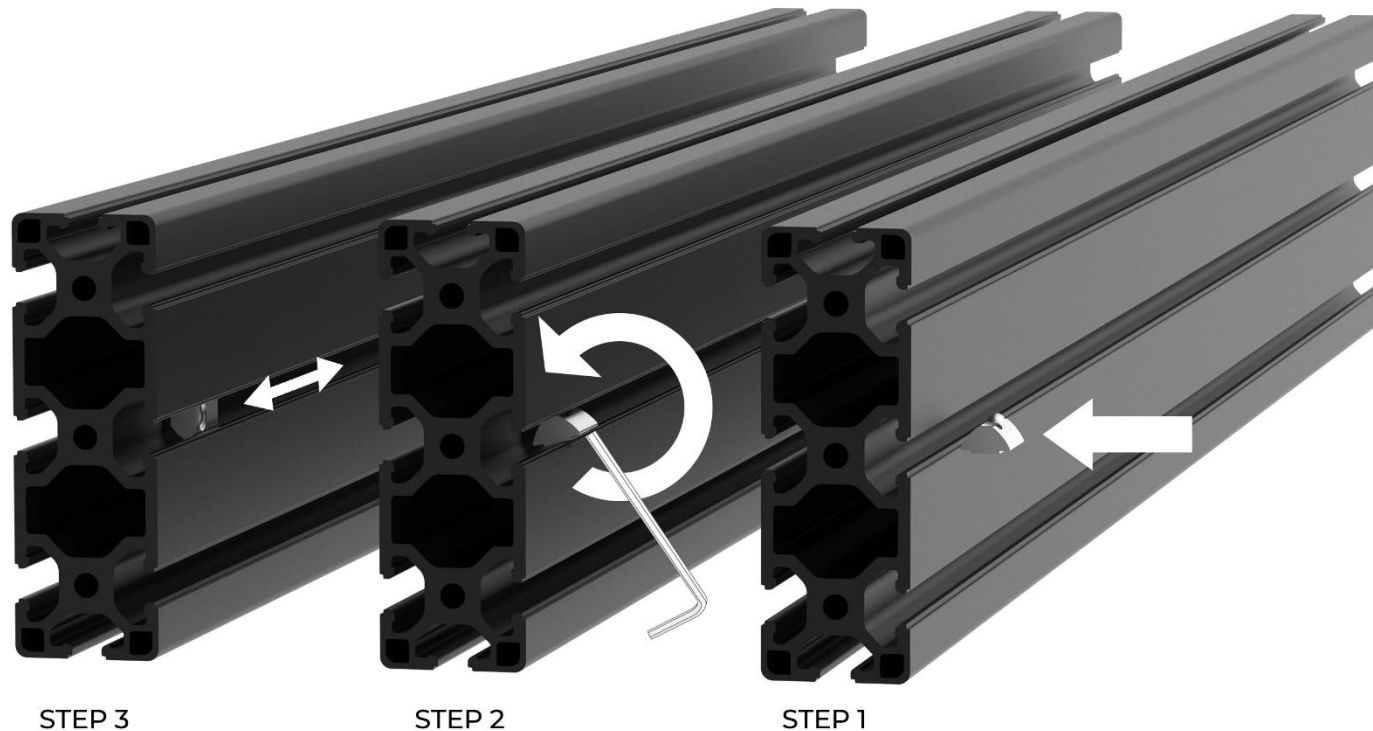
**Step 2:** Rotate the nut. You can use the No.5 Hex Key to help wiggle the Slot-Nut in place.

**Step 3:** Set the T-Nut in place. The guide step positions the nut parallel and central within the slot, which makes it easier to move the nut and prevents from twisting during tightening. The spring-loaded ball prevents an unwanted movement of the nut in the slot, which is highly desirable on a bed with the T-slots in a vertical position.

Tools needed but not provided with the assembly instructions:



Tape Measure



## Chassis

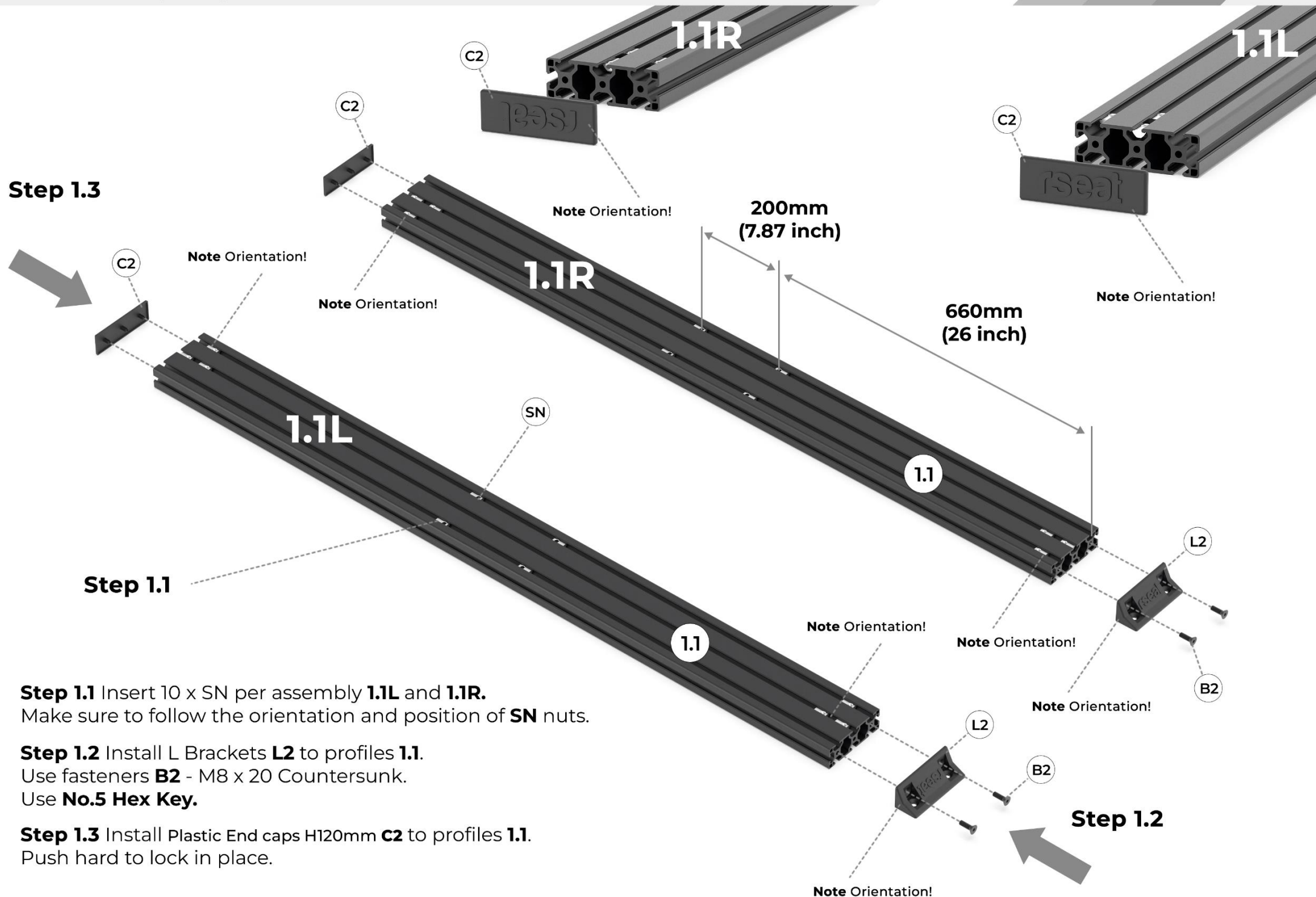
1.1 x 2pcs	Profile 120x40 L1380mm
1.2 x 2pcs	Profile 120x40 L500mm
1.3 x 2pcs	Profile 80x40 L420mm
1.4 x 2pcs	Profile 120x40 L820mm
L2 x 8pcs	L-Bracket H120mm
L1 x 4pcs	L-Bracket H80mm
C2 x 6pcs	Plastic End cap H120mm
1.9 x 4pcs	Adjustable feet kit
1.10 x 1pcs	Pair of Seat sliders left and right

## Fasteners and tools needed

SN x 56pcs	T-Nut M8 with ball insert
B1 x 52pcs	M8x16 countersunk
B2 x 8pcs	M8x20 countersunk
B5 x 8pcs	M8x16 din 912
H5 x 1pcs	No.5 Hex Key
H6 x 1pcs	No.6 Hex Key
W14 x 1pcs	No.14 Wrench



**Step 1.3**



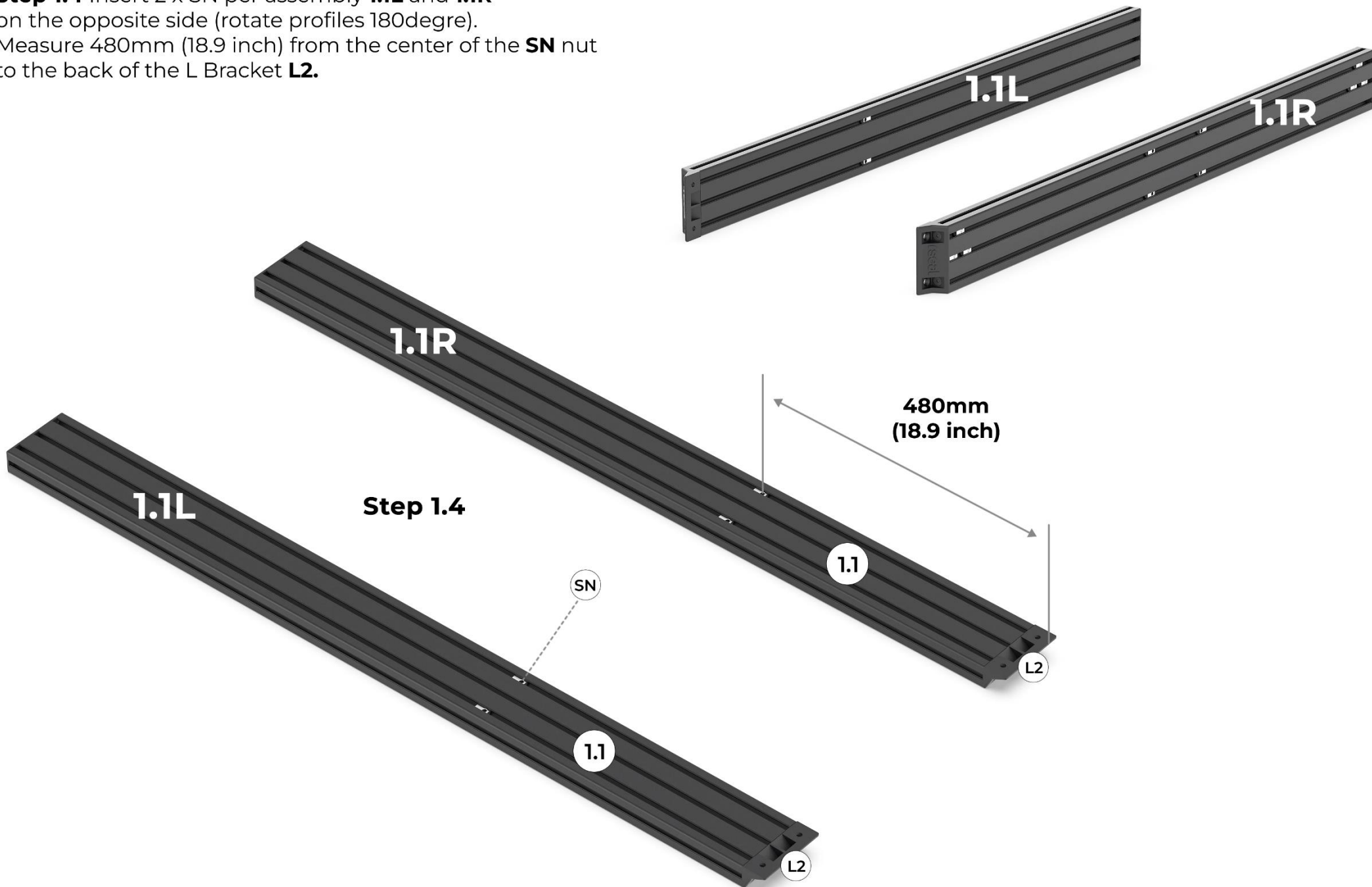
**Step 1.1** Insert 10 x SN per assembly **1.1L** and **1.1R**.  
Make sure to follow the orientation and position of **SN** nuts.

**Step 1.2** Install L Brackets **L2** to profiles **1.1**.  
Use fasteners **B2** - M8 x 20 Countersunk.  
Use **No.5 Hex Key**.

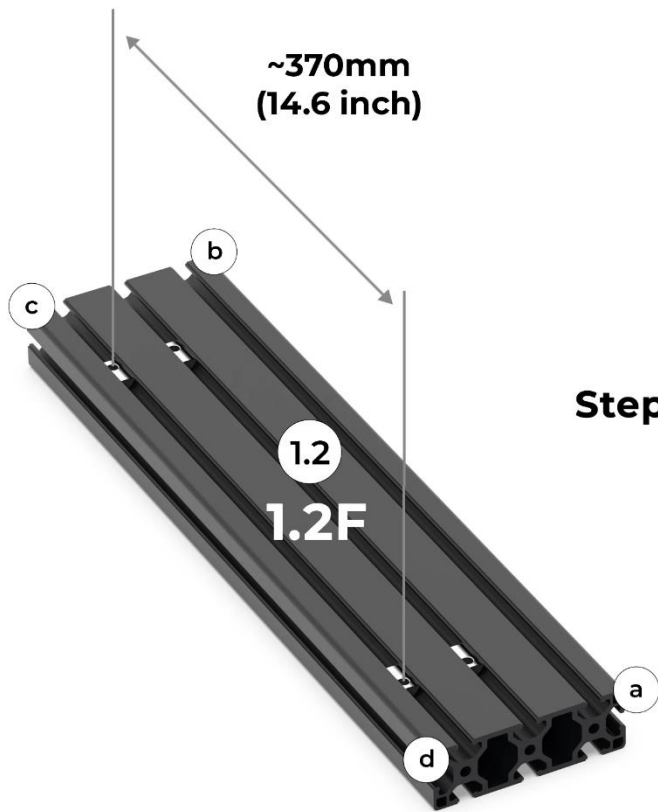
**Step 1.3** Install Plastic End caps H120mm **C2** to profiles **1.1**.  
Push hard to lock in place.

**Step 1.2**

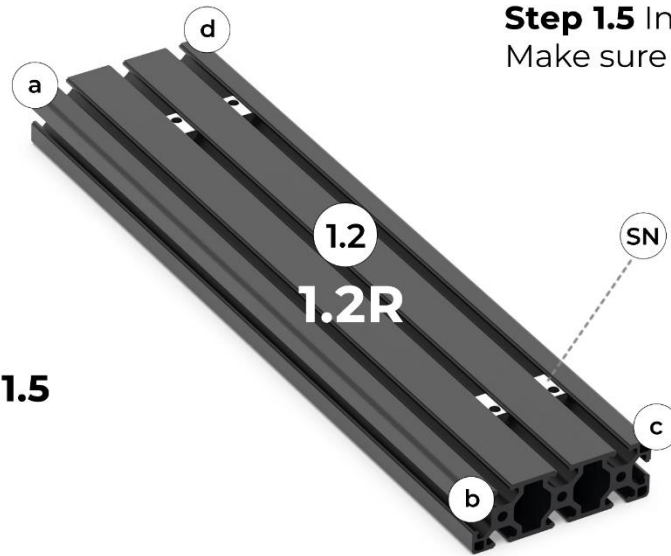
**Step 1.4** Insert 2 x SN per assembly **1.1L** and **1.1R** on the opposite side (rotate profiles 180degree). Measure 480mm (18.9 inch) from the center of the **SN** nut to the back of the L Bracket **L2**.



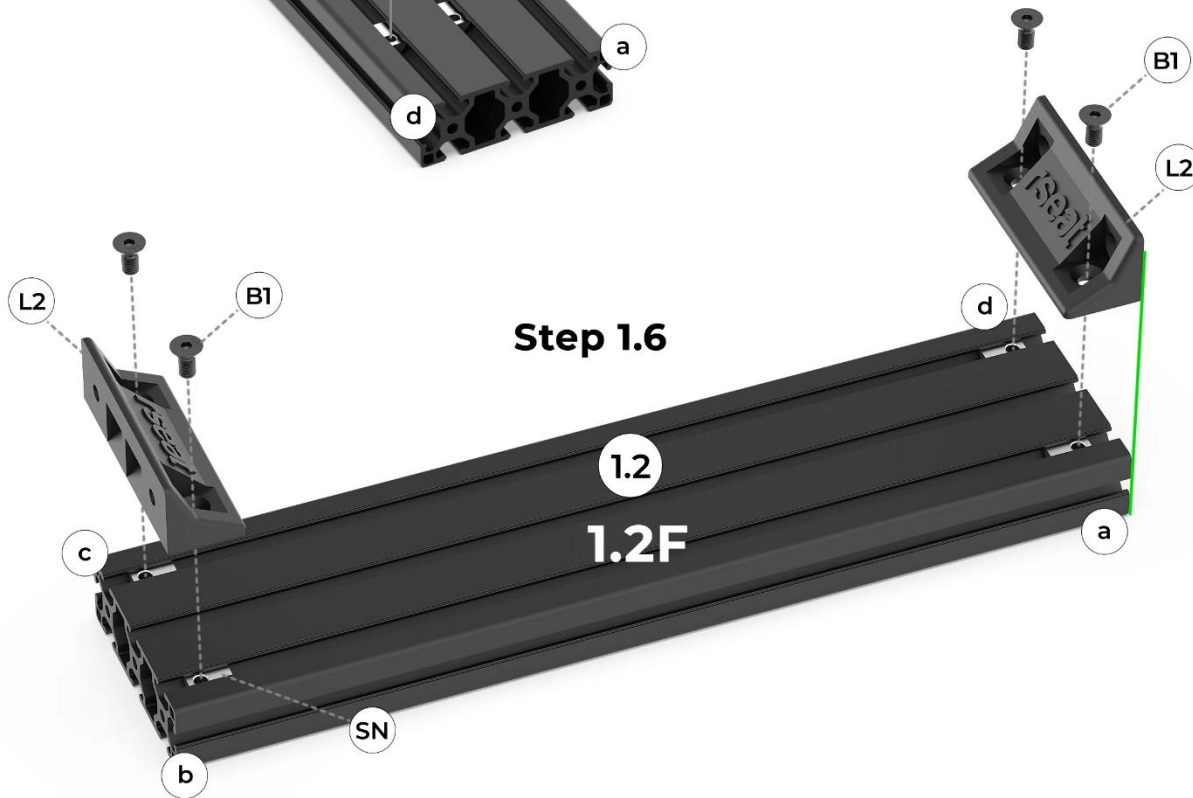




Step 1.5

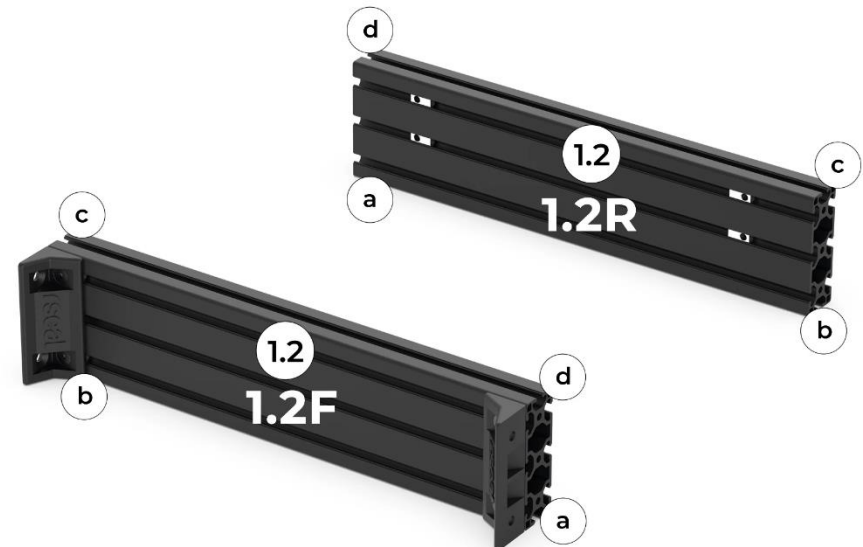


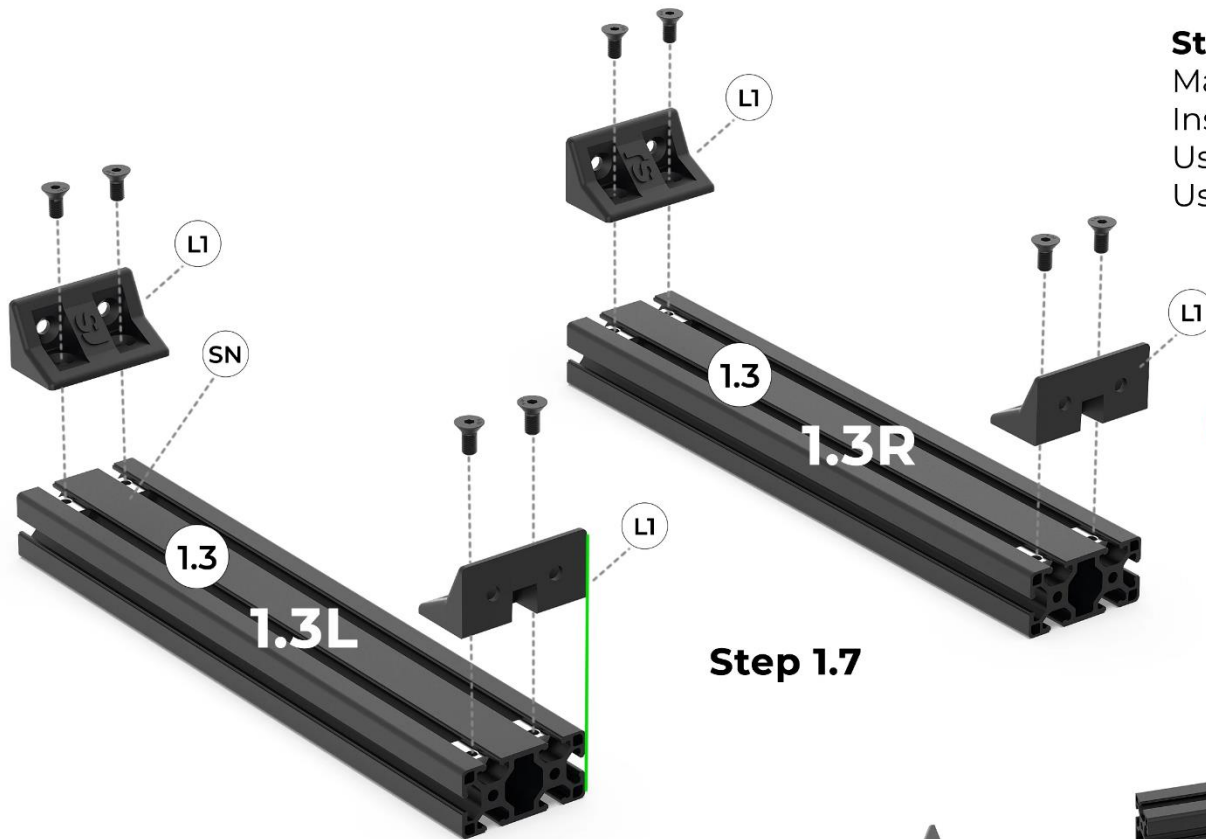
**Step 1.5** Insert 4 x SN per assembly **1.2F** and **1.2R**.  
Make sure to follow the orientation and position of **SN** nuts.



Step 1.6

**Step 1.6** Insert 4 x SN on the opposite side (rotate 1.2F assembly 180degree).  
Make sure to follow the orientation and position of **SN** nuts. Install 2 X L Brackets **L2** to assembly **1.2F**.  
Use fasteners **B1** - M8 x 16 Countersunk.  
Use **No.5 Hex Key**.





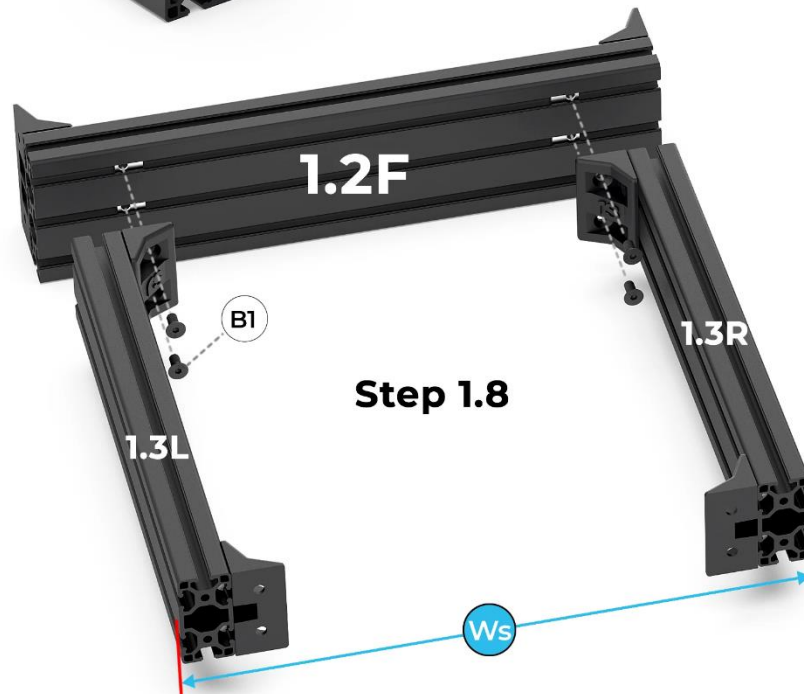
Step 1.7

**Step 1.7** Insert 4 x SN per assembly, **1.3L** and **1.3R**. Make sure to follow the orientation and position of **SN** nuts. Install L Brackets **L1** on each corner of assembly **1.3L** and **1.3R**. Use fasteners **B1** - M8 x 16 Countersunk. Use **No.5 Hex Key**.

**Step 1.8** Connect assembly **1.3L** and **1.3R** to assembly **1.2F**. Use 4 x **B1** - M8 x 16 Countersunk. Use **No.5 Hex Key**. Width between **1.3L** and **1.3R** is different per seat. Check the below dimensions.

**Ws** Width per seat: **RSEAT GT** seat 490mm (19.3 inch), **Sparco EVO** 445mm (17.5 inch), **Sparco EVO XL** 480mm (18.9 inch), **Sparco Circuit** 430mm (19.9 inch), **Sparco Circuit 2** 460mm (18.1 inch)

**Step 1.9** Connect assembly **1.2F** + **1.3L** + **1.3R** to assembly **1.2R**. Use 4 x **B1** - M8 x 16 Countersunk. Use **No.5 Hex Key**.



Step 1.8

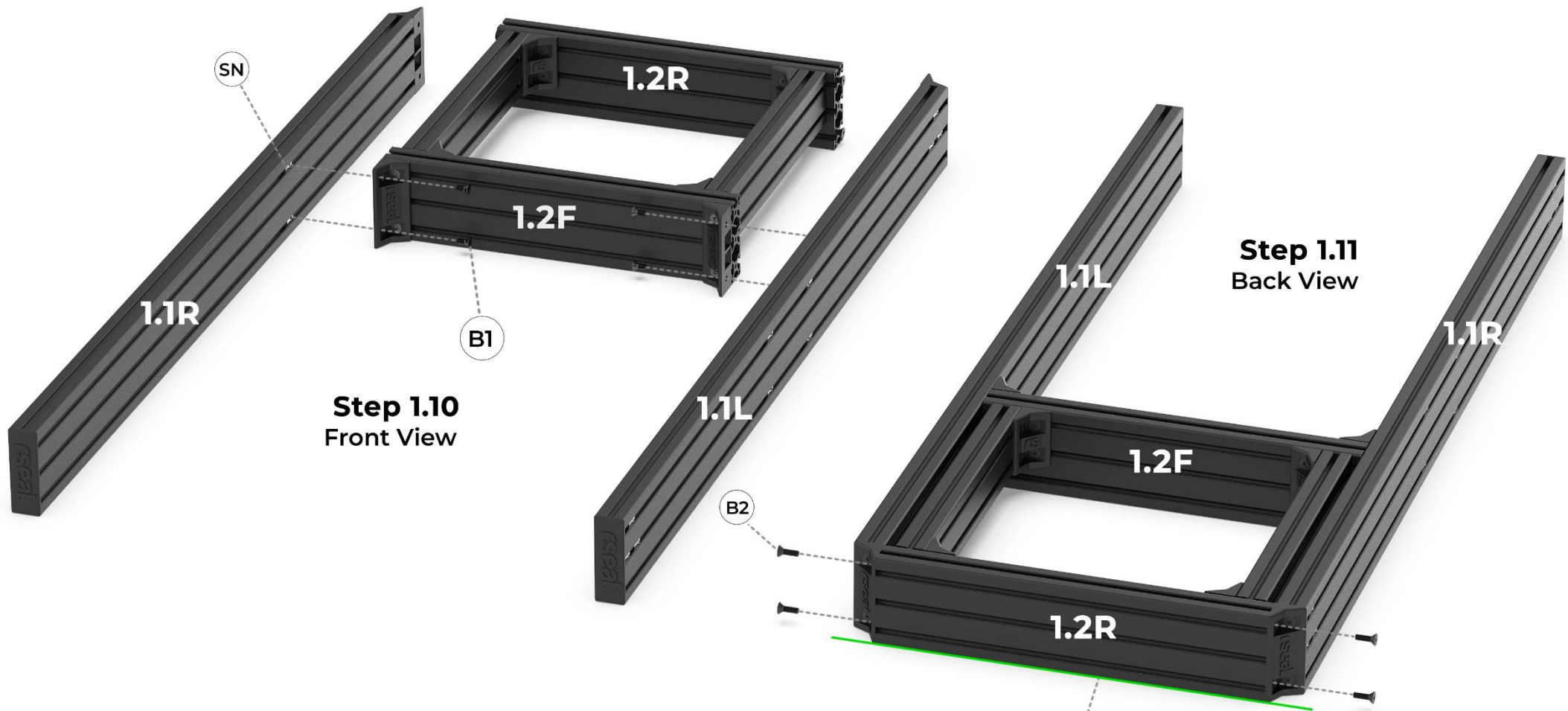


Step 1.9

**NOTE!** For step 1.8 and 1.9: Do not tight all fasteners yet. Just put it together with no final tightening.

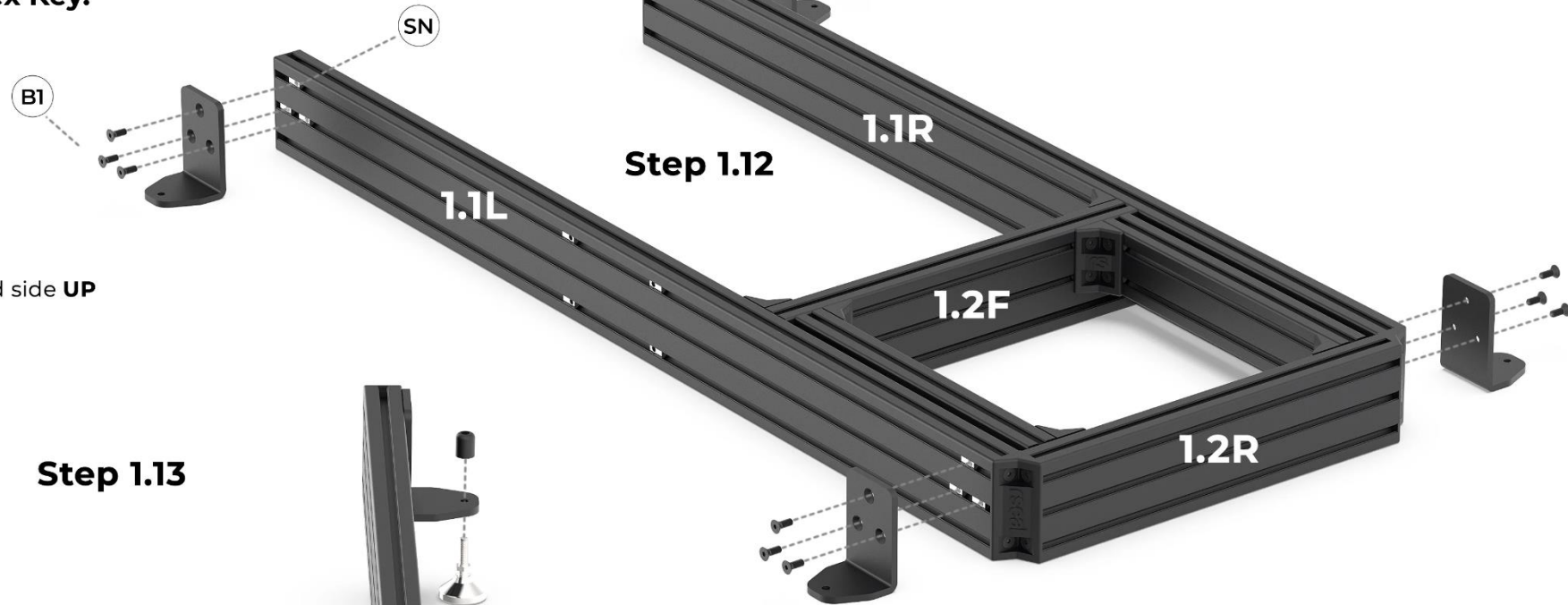
**Step 1.10** Connect assembly **1.1L** and **1.1R** to assembly **1.2F**. Use 4 x **B1** - M8 x 16 Countersunk. Use **No.5 Hex Key**.

**Step 1.11** Connect assembly **1.1L** and **1.1R** to assembly **1.2R**. Use 4 x **B2** - M8 x 20 Countersunk. Use **No.5 Hex Key**.



**NOTE!** Align 1.2R and 1.1L/1.1R  
**NOTE!** You can tight all fasteners at this stage.

**Step 1.12** Connect assembly **1.1L** and **1.1R** to feet mounts **1.9**. Use 3 x **B1** - M8 x 16 Countersunk per mount. Use **No.5 Hex Key**.



**NOTE!** Protective Cap rounded side **UP**



**Step 1.12**

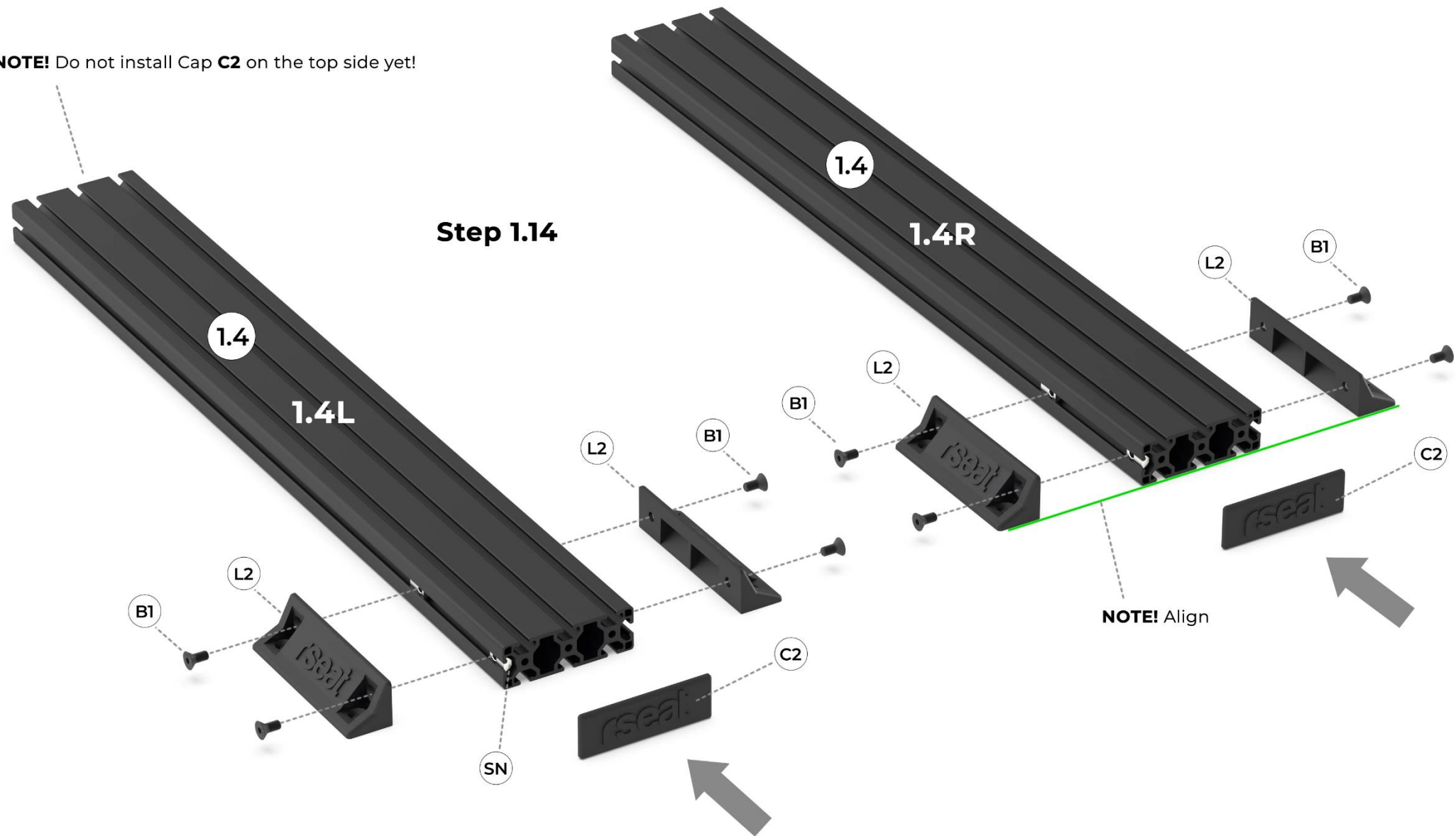
**Step 1.13**

**Step 1.13** Connect swiveling feet to feet mounts **1.9**. Use **W14 Wrench** to set up the chassis alignment and height after the whole installation of the chassis is completed. Install aluminum thread protection caps after the final setup is complete to protect user from harm.

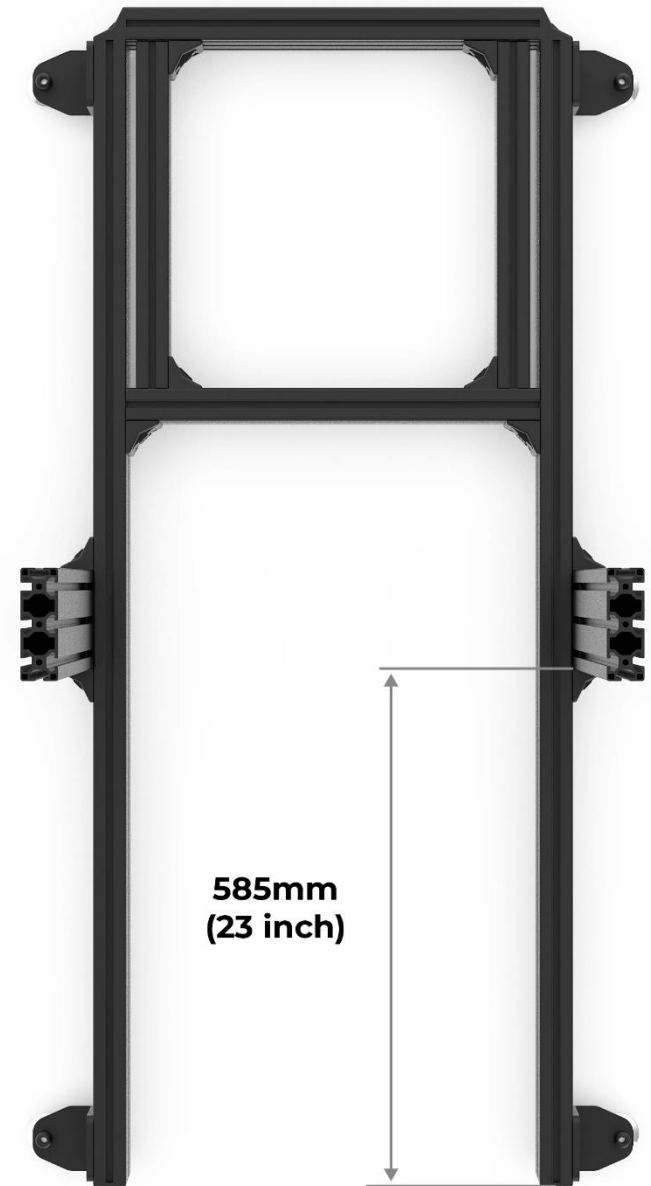
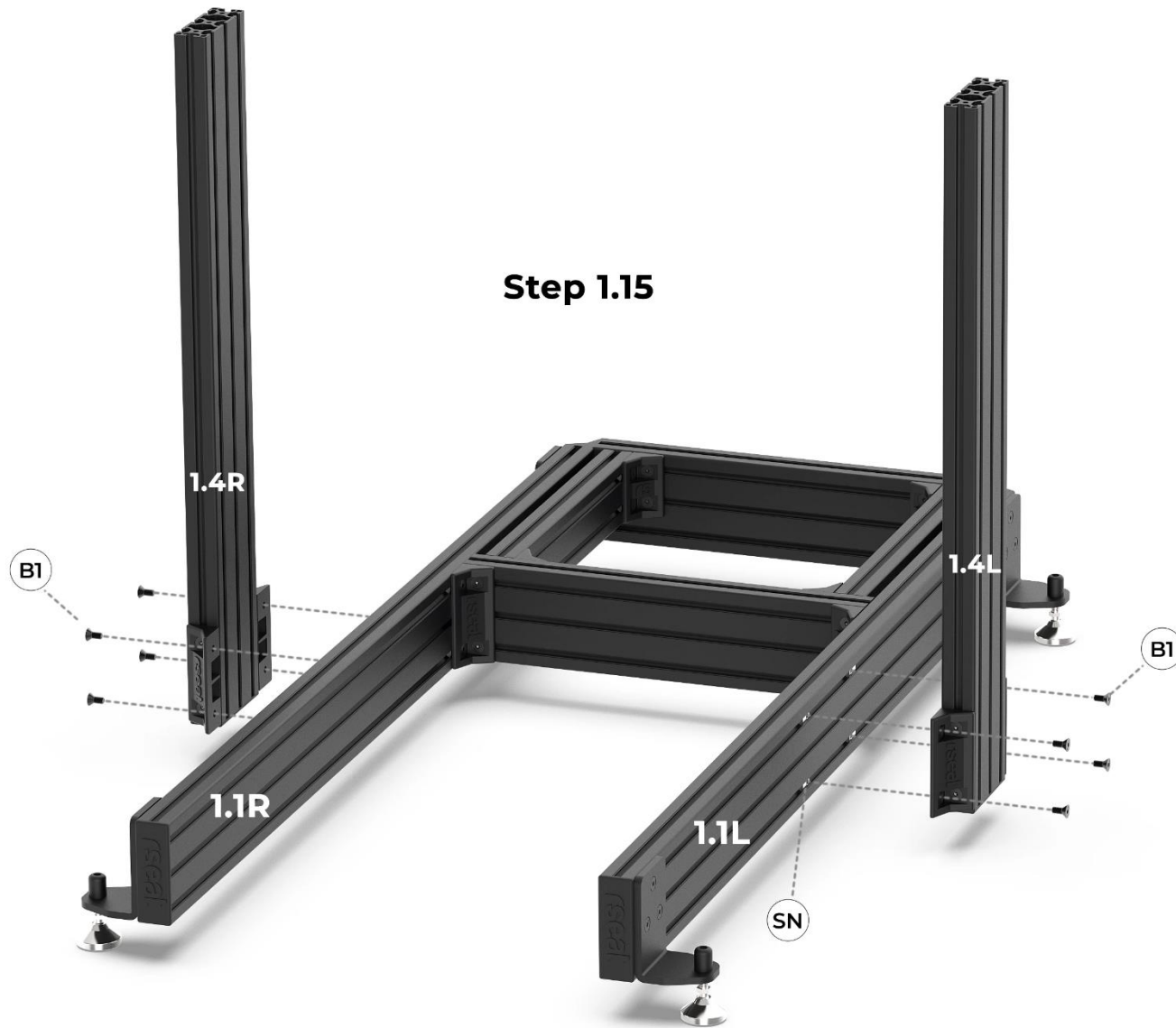
**NOTE!** You can tight all fasteners at this stage.

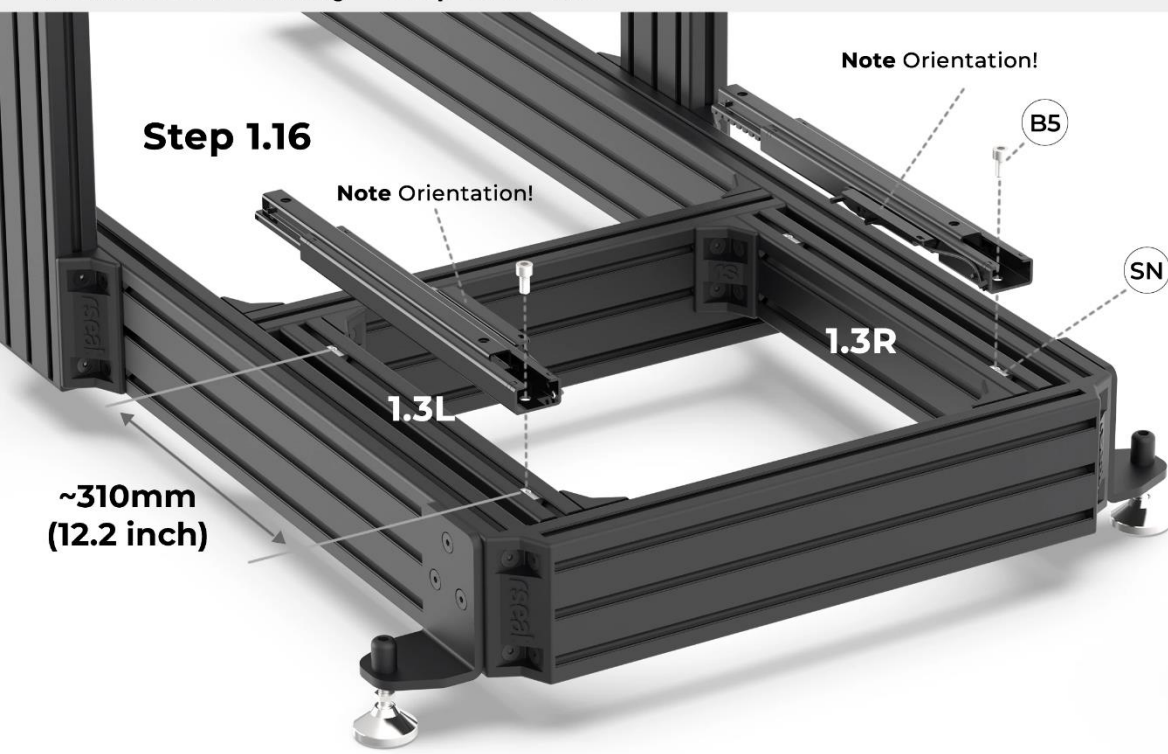
**Step 1.14** Install 2 x **L2** Brackets to assemblies **1.4L** and **1.4R**. Use 4 x **B1** - M8 x 16 Countersunk and 4 x **SN** T-Slot Nuts per profile. Use **No.5 Hex Key**.  
Install 1 x **C2** Plastic cap to **1.4L** and **1.4R** assembly bottom end. Press by hand.  
**NOTE!** Do not install the top **C2** caps yet.

**NOTE!** Do not install Cap **C2** on the top side yet!



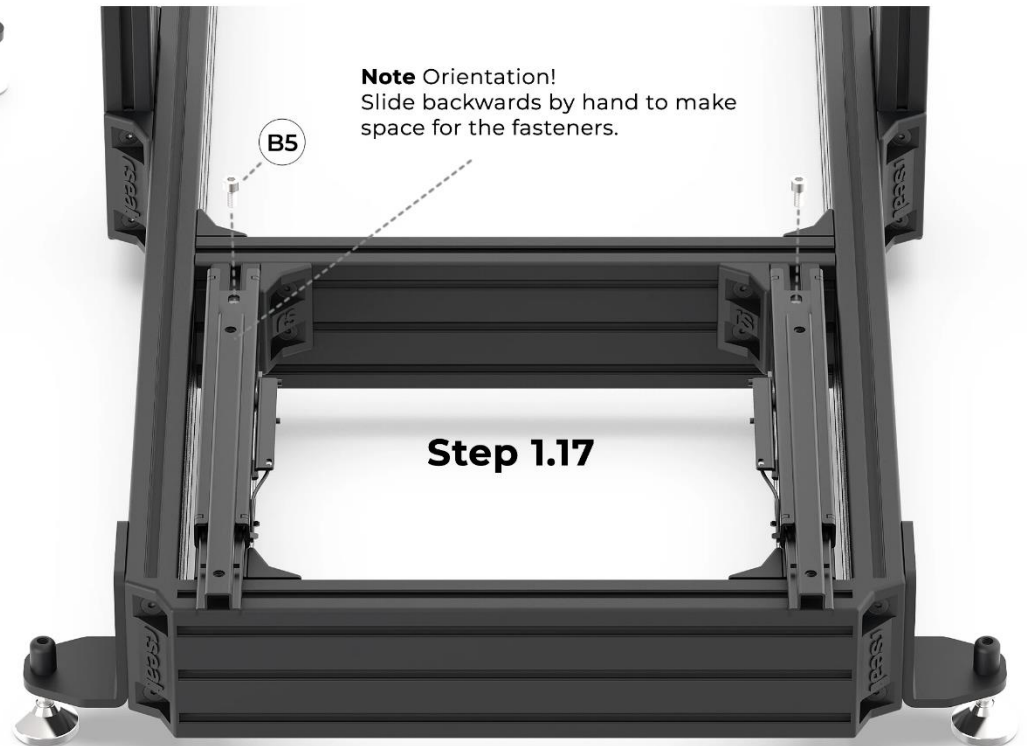
**Step 1.15** Install assemblies **1.4L** to **1.1L** and **1.4R** to **1.1R**. Use 4 x **B1** - M8 x 16 Countersunk per side. Use **No.5 Hex Key**.



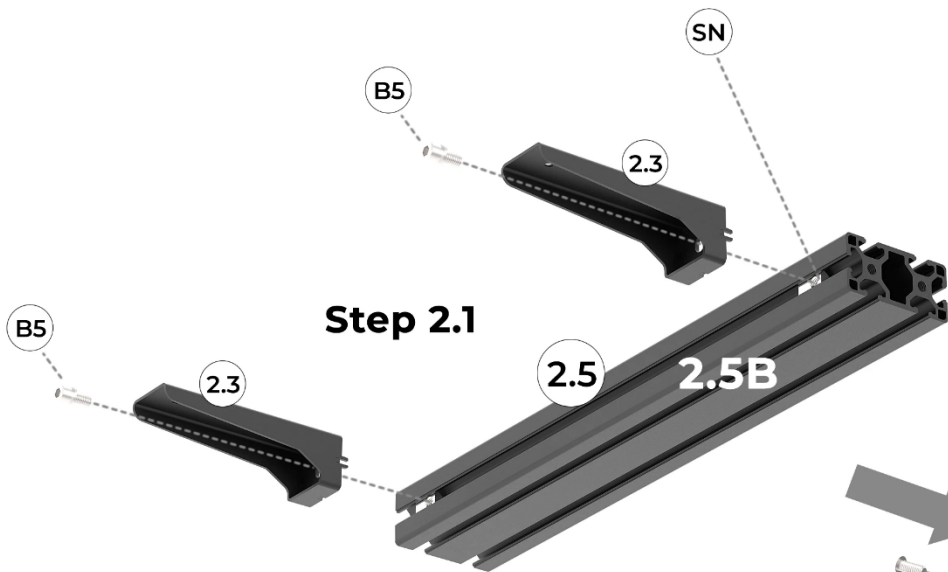


**Step 1.16** Install seat sliders **1.10** to assembly **1.3L** and **1.3R**. Use 4 x **SN** - T-slot nuts and 2 x **B5** - M8 x 16 din 912. Use **No.6 Hex Key**. To slide each slider by hand, push the lever down by hand and slide the slider forward.

**Step 1.17** Slide the slider backwards and get access to the front mounting points. Use 2 x **B5** - M8 x 16 din 912. Use **No.6 Hex Key**.

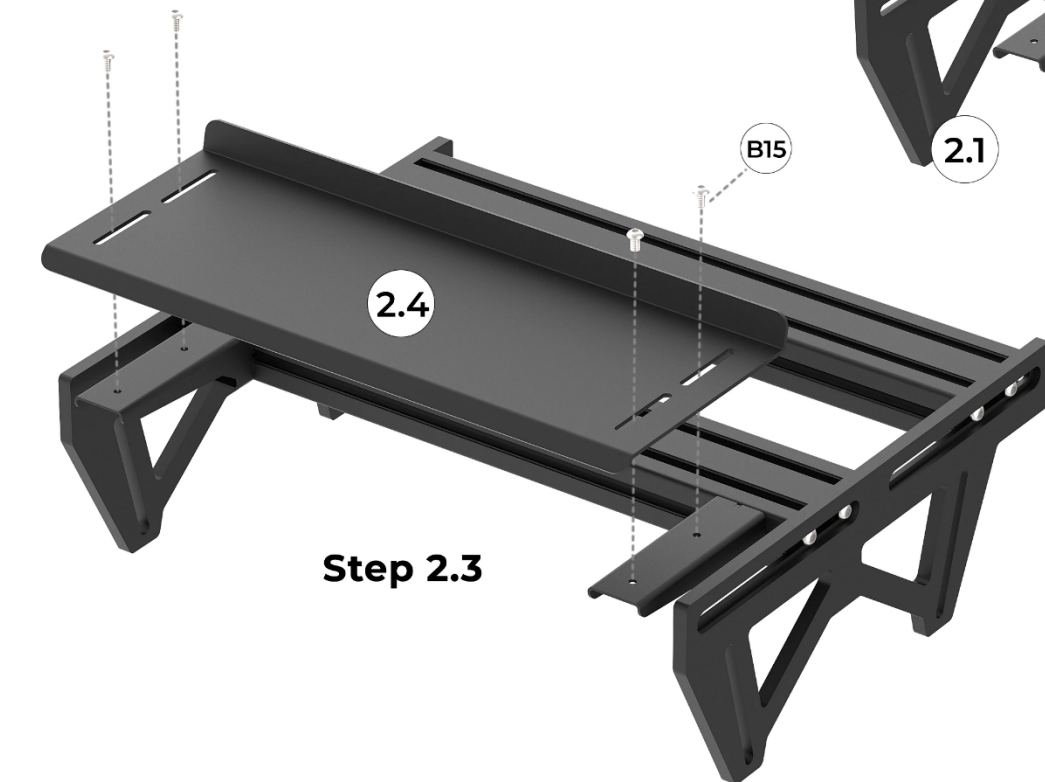


**Step 1.18** Attach the slider adjustment lever. Use the predrilled holes in each side of the lever to attach to the left and right slider. Stretch or narrow the lever from side to side, depending on the width between seat sliders.

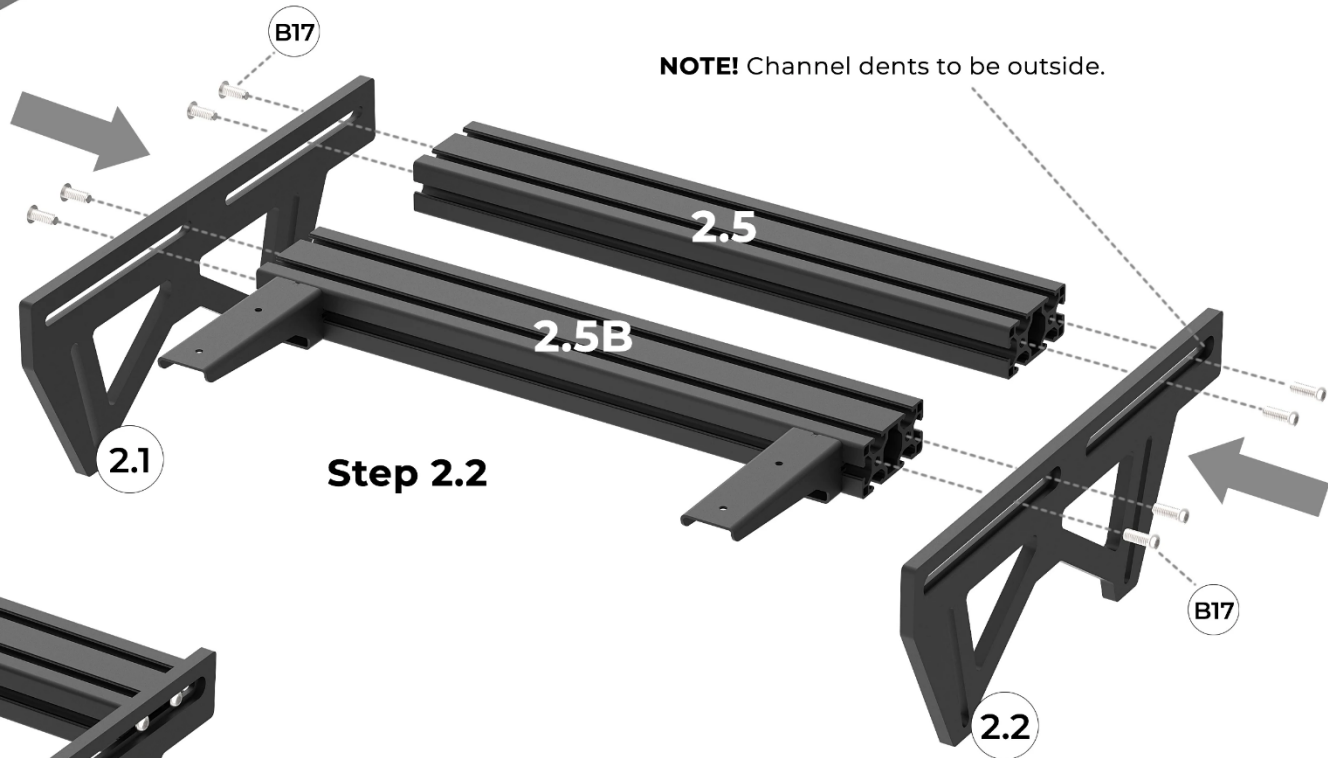


Step 2.1

**Step 2.1** Install 2 x **2.3** Brackets to assembly **2.5**. Use 2 x **B5** - M8 x 16 din 912, 2 x SN T-Slot Nut M8. Do not hard tight the bolts yet! Allow brackets **2.3** to move left-right. Use **No.6 Hex Key**.



Step 2.3



Step 2.2

**Step 2.2** Install Brackets **2.1** (left) and **2.2** (right) to part **2.5** (front) and assembly **2.5B** (back). Use 4 x **B17** - M8 x 20 button head. Use **No.5 Hex Key**.

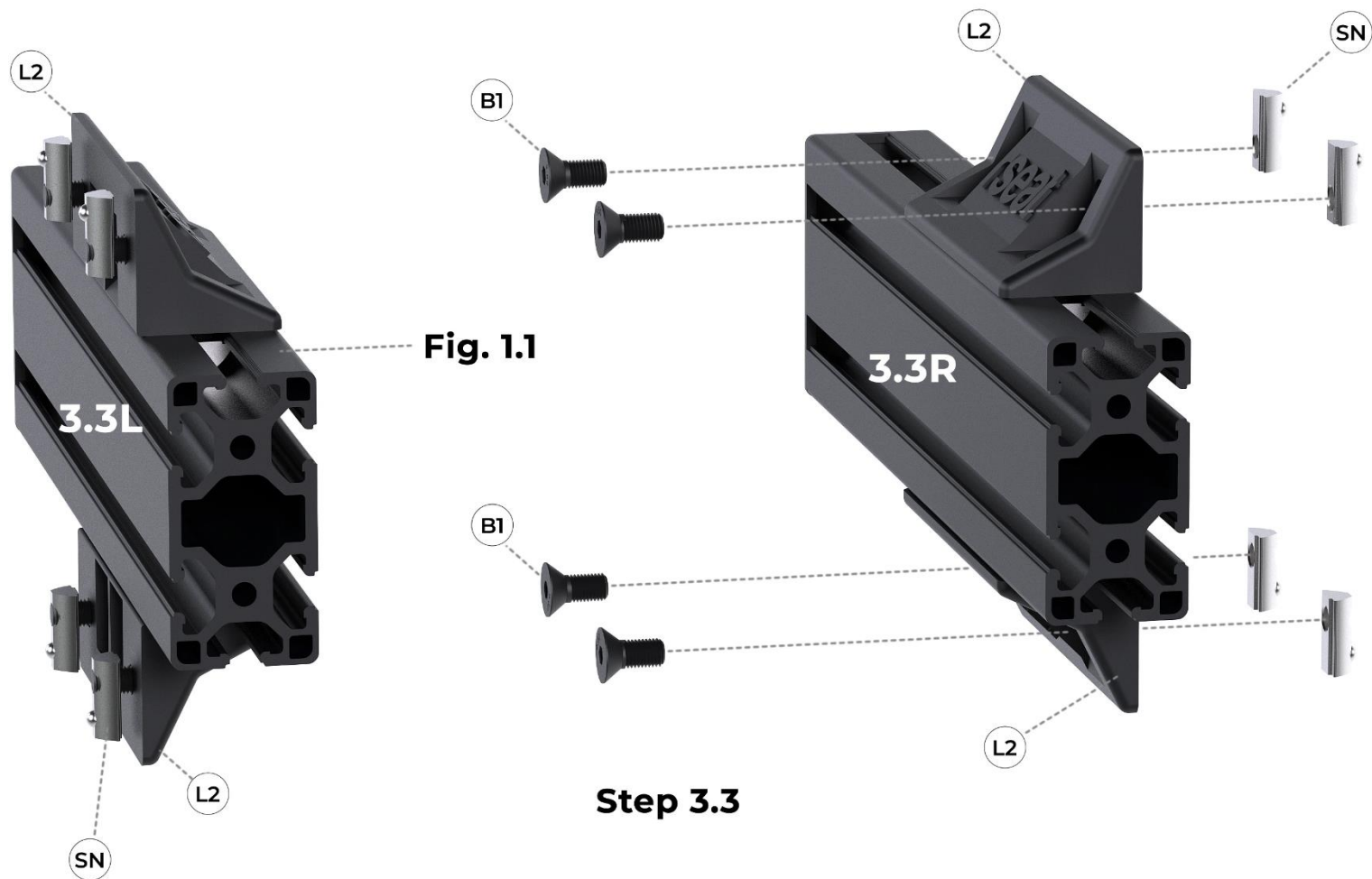
**NOTE!** Channel dents to be outside.

**Step 2.3** Install Heel Support plate **2.4** to brackets **2.3**. Use 4 x **B15** - M6 x 12 button head. Use **No.4 Hex Key**. You can now hard tight the bolts B6 from assembly **2.5B**.

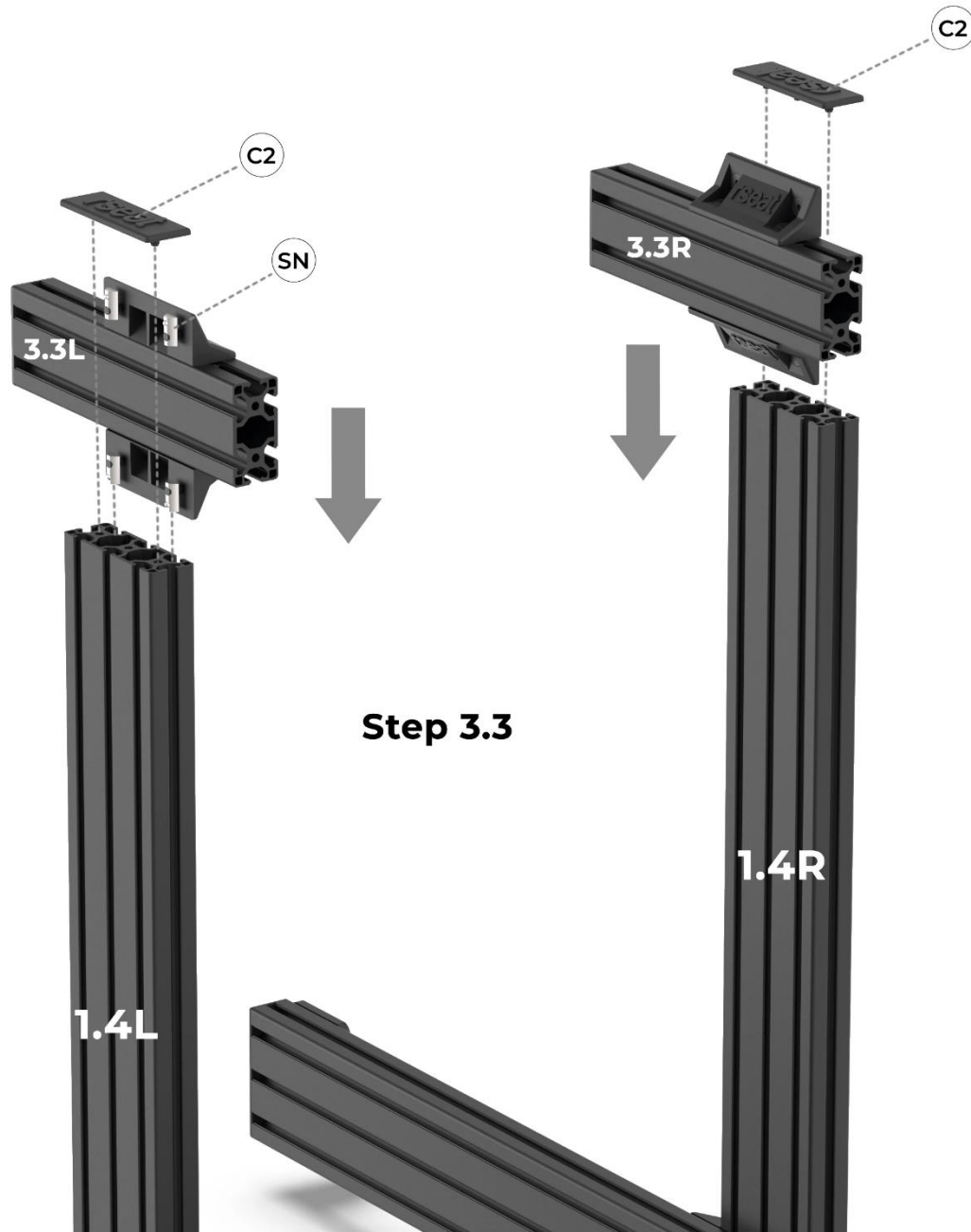
**NOTE!** Pedal Tray Assembly to Chassis installation go to **page 26**



**Step 3.2** Connect 4x **B1** M8 x 16 Countersunk to 4 x **SN** T-Nut by hand and do not tight. Just connect the bolts and T-Nuts with two turns with no tension. As per figure **1.1** Do this step for assembly **3.3L** and **3.3R**.

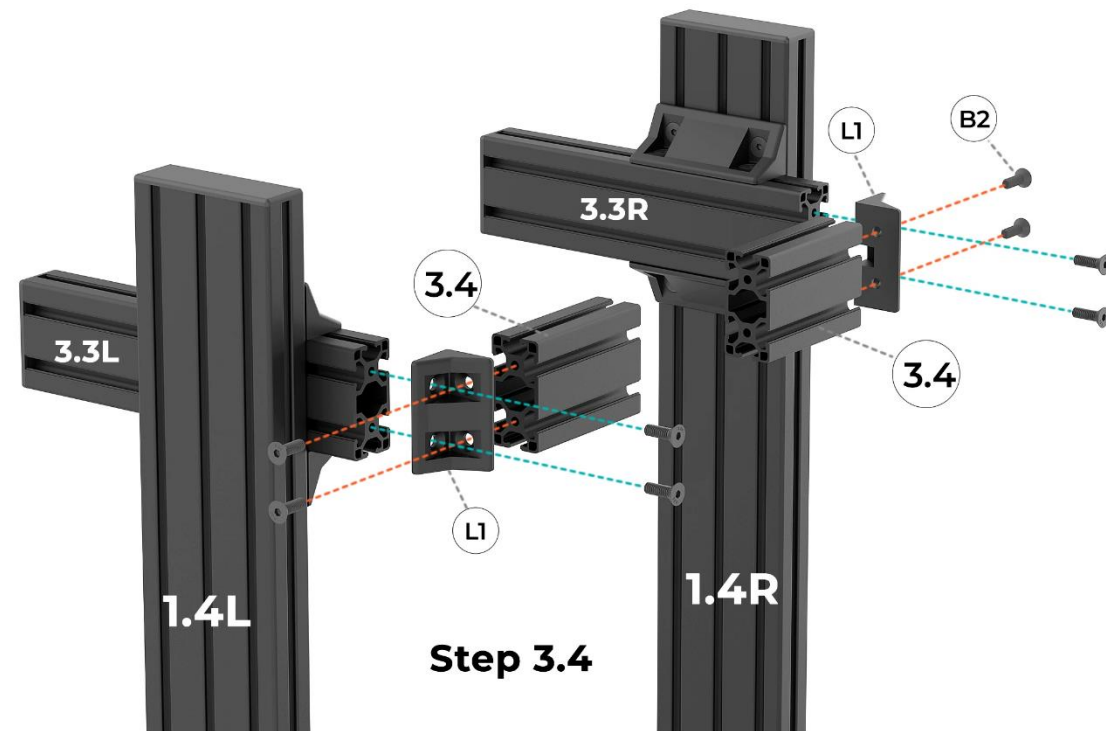


**Step 3.3** Slide assembly **3.3L** to **1.4L** and **3.3R** to **1.4R**. Align **SN** nuts to be parallel to the T-Slot channels. Align both assemblies **3.3L** and **3.3R** at same height and tight using **No.5 Hex Key**. Install 1 x **C2** Plastic cap to **1.4L** and **1.4R** assembly top end. Press by hand.



Step 3.3

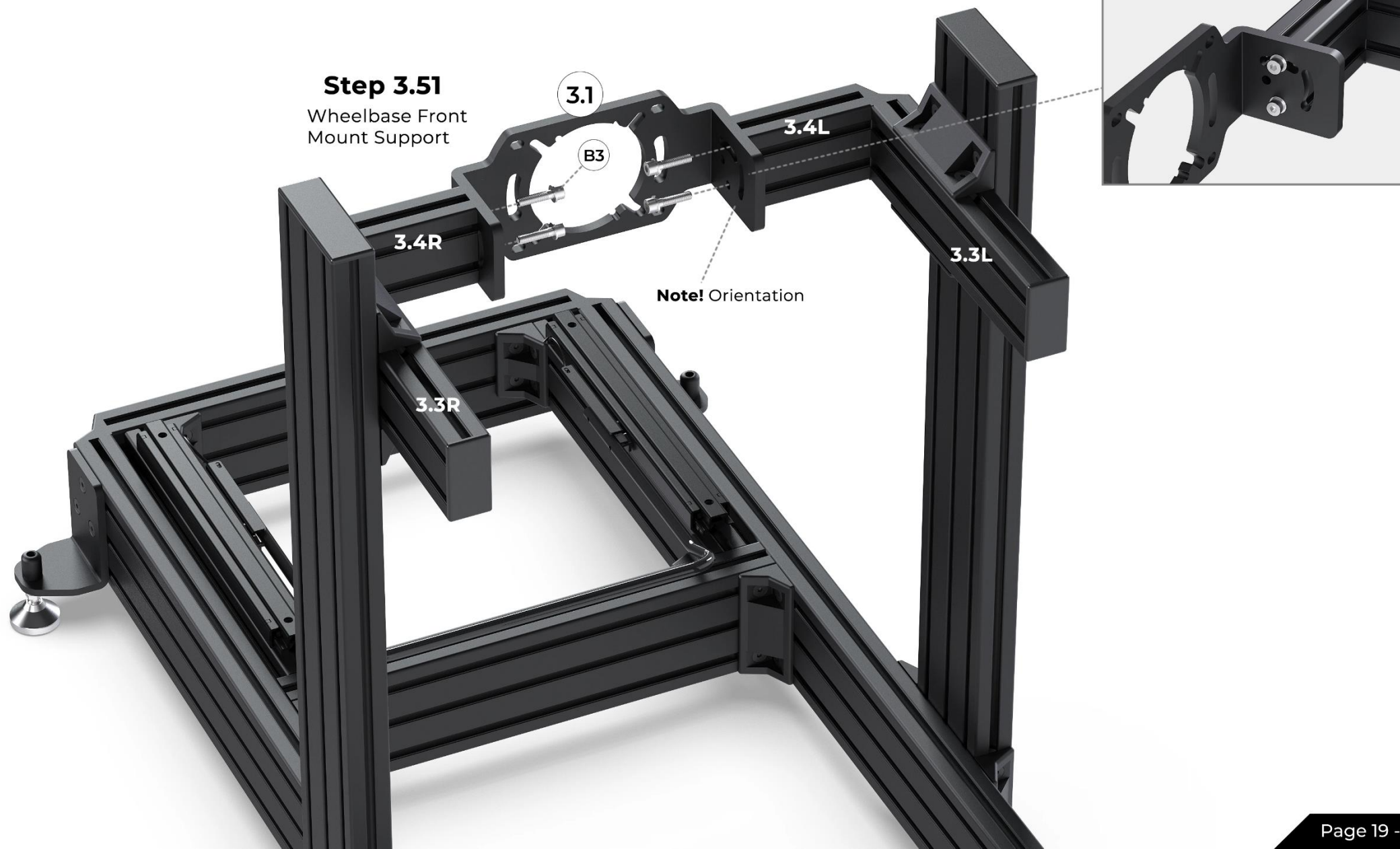
**Step 3.4** Install 2 x **3.4** Profiles to assemblies **3.3L** and **3.3R**. Use 2 x **L1** brackets and 8 x **B2** - M8 x 20 Countersunk. Use **No.5 Hex Key**.



Step 3.4

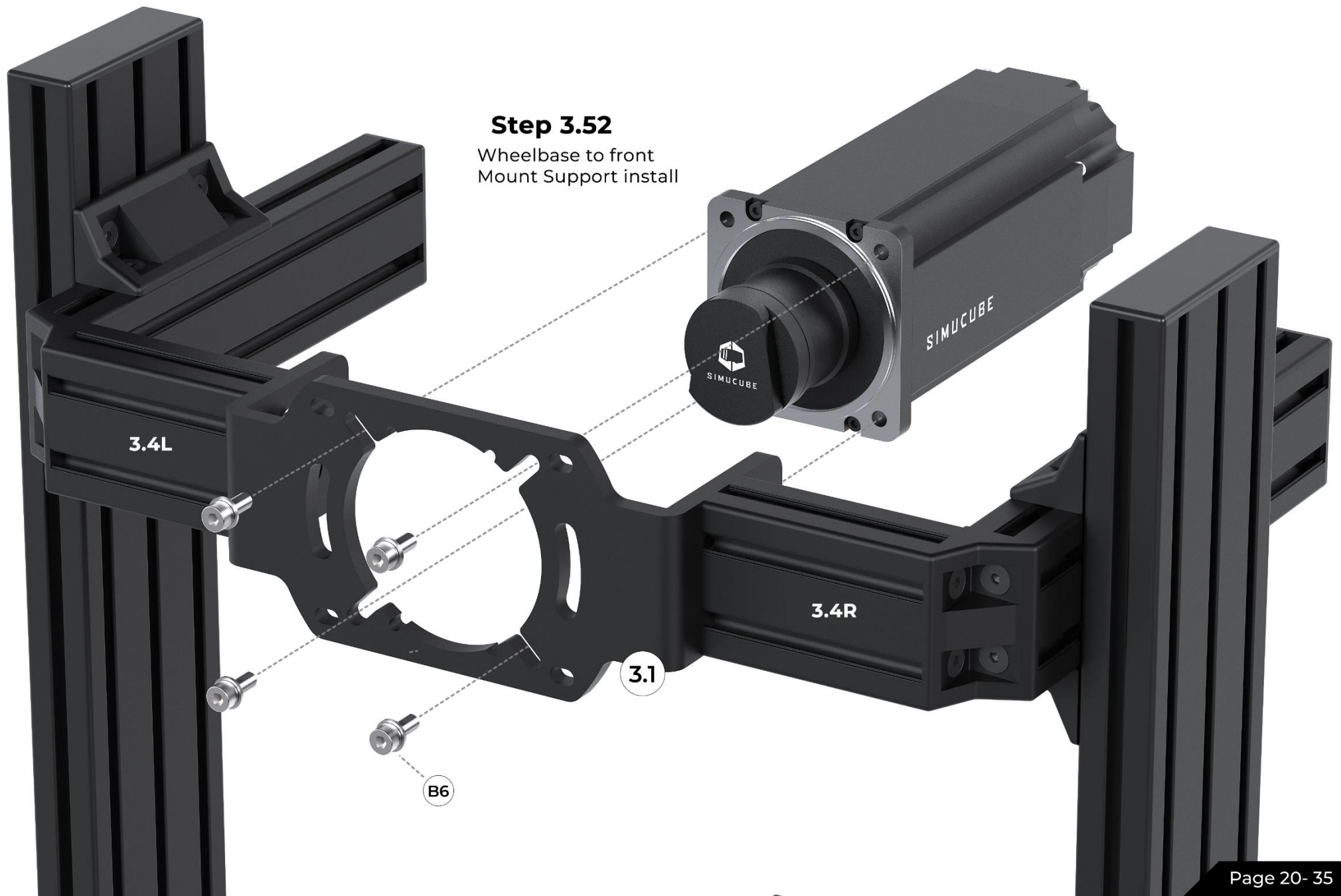
**Step 3.51** - Wheelbase front mount support

Install Wheelbase Front mounting bracket **3.1** to assembly **3.4L** and **3.4R**. Use 4 x **B3** - M8 x 30 din 912 with washers. Use **No.6 Hex Key** to lock in desired angle and position.

**Step 3.51**Wheelbase Front  
Mount Support

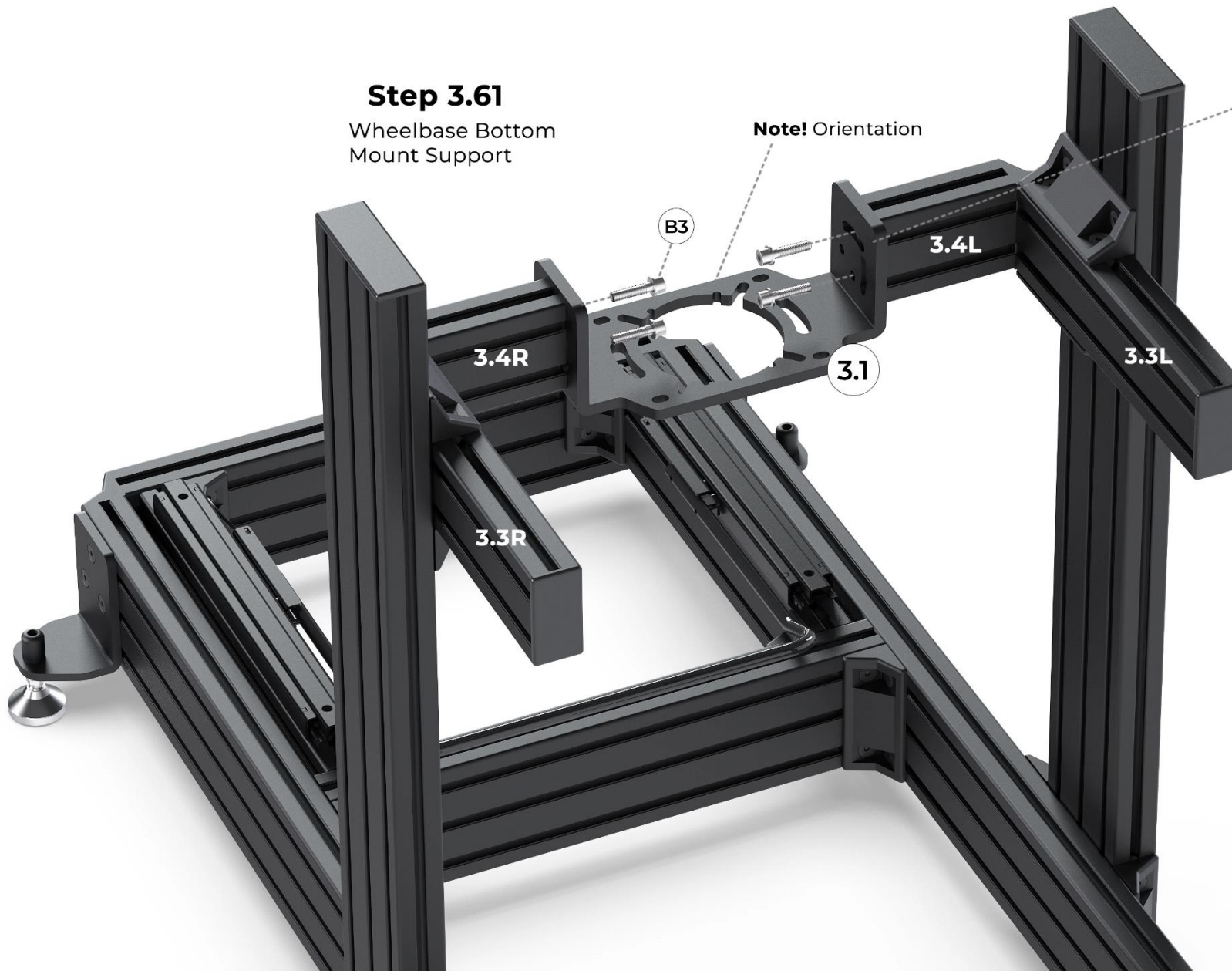
**Step 3.52** - Wheelbase front mount support

Install Wheelbase to mounting bracket **3.1** Use 4 x **B6** - M8 x 20 din 912. Use **No.6 Hex Key**.



**Step 3.61** - Wheelbase bottom mount support

Install Wheelbase Front mounting bracket **3.1** to assembly **3.4L** and **3.4R**. Use 4 x **B3** - M8 x 30 din 912 with washers. Use **No.6 Hex Key** to lock in desired angle and position.

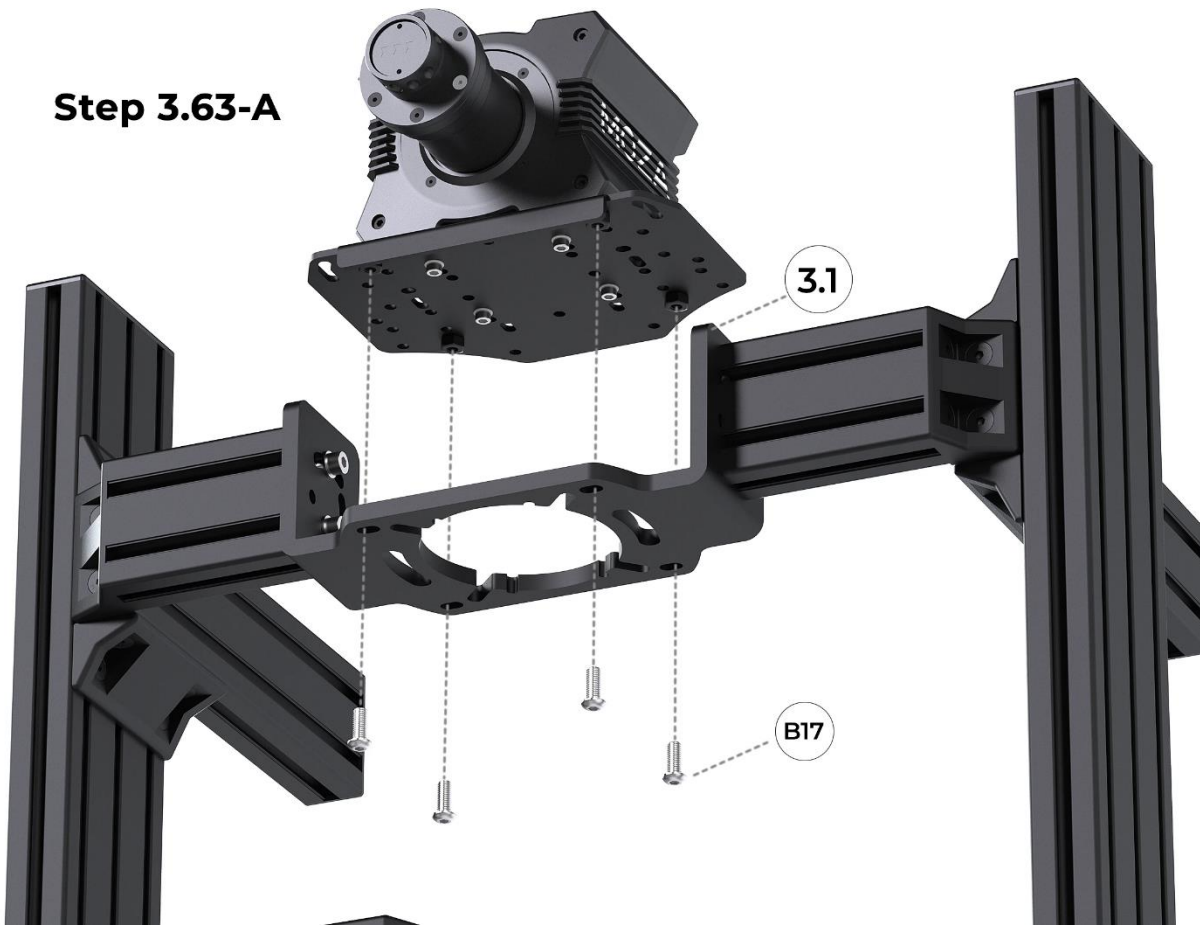
**Step 3.61**Wheelbase Bottom  
Mount Support**Note!** Orientation

**Step 3.62** - Install Wheelbase to mounting bracket **3.2**  
Use 4 x **B16** - M6 x 16 button head. Use **No.4 Hex Key**.

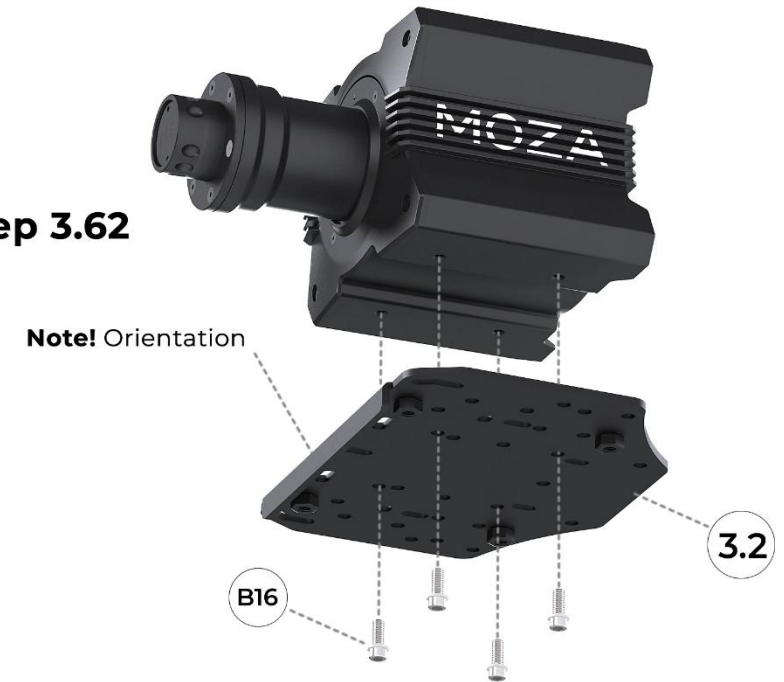
**Step 3.63-A** - The default installation position!  
Install Wheelbase and mounting bracket **3.2** assembly to bracket **3.1**. Use 4 x **B17** - M8 x 20 button head. Use **No.5 Hex Key**.

**Step 3.63-B** - In rear cases where the wheelbase is wider than wheel mounting bracket **3.1**, rotate **3.1** upside down and repeat step 3.63-A.

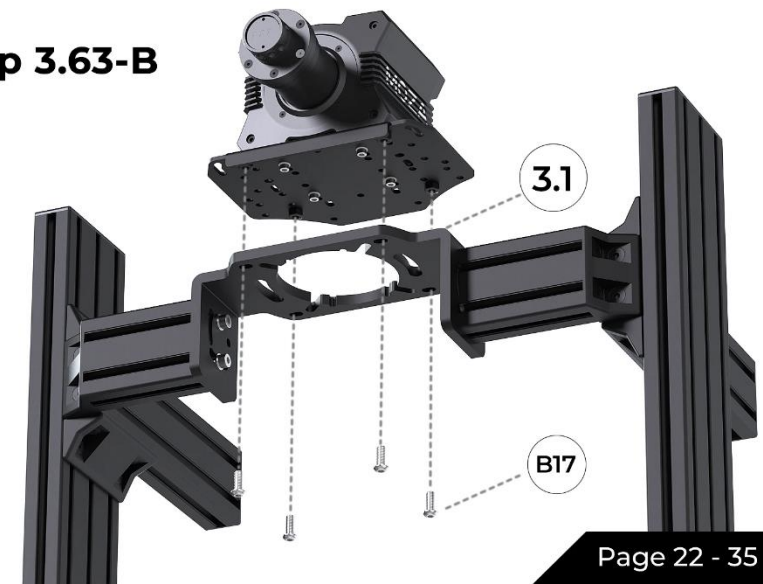
**Step 3.63-A**



**Step 3.62**

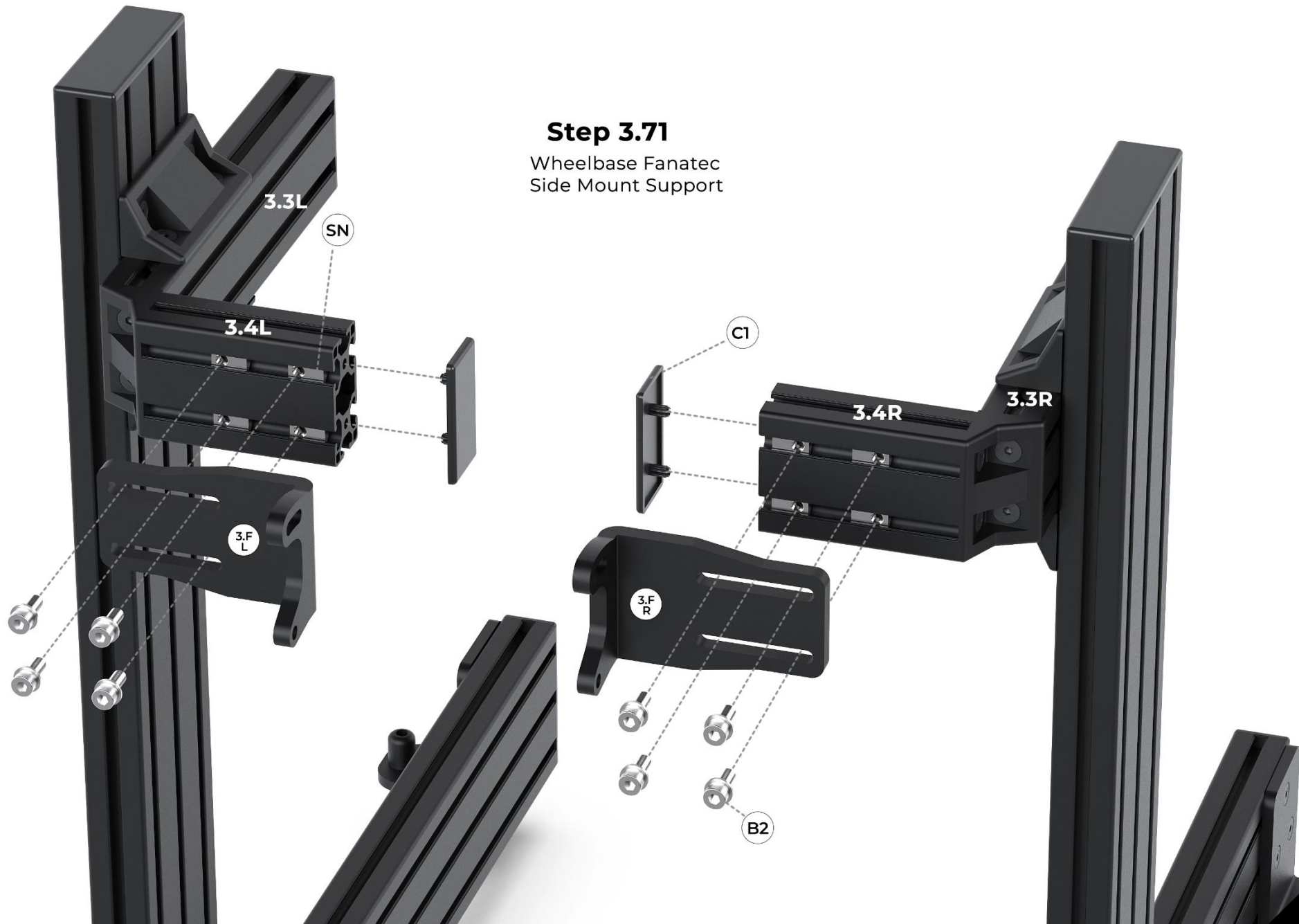


**Step 3.63-B**

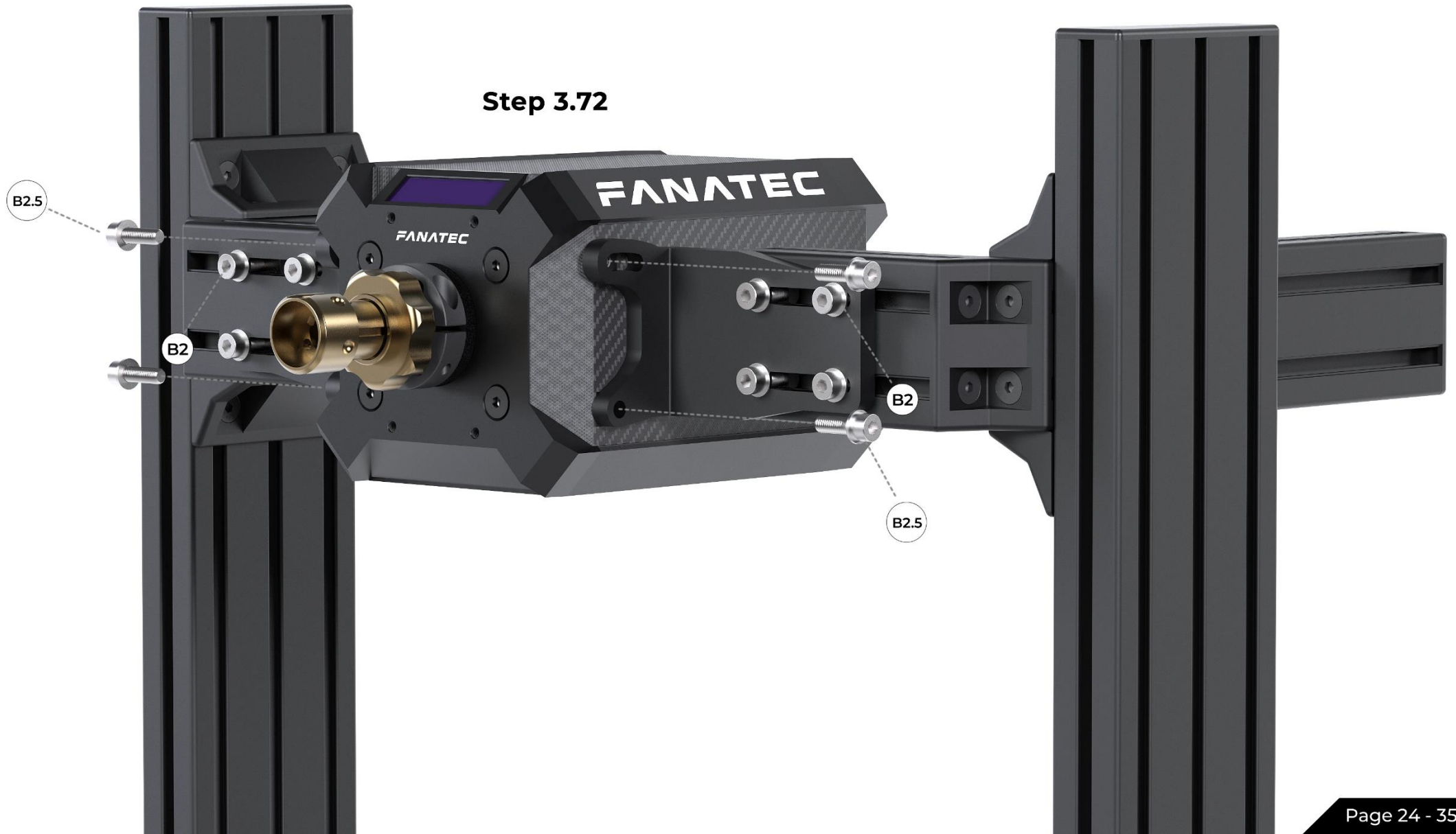


**Step 3.71** - Wheelbase Fanatec side mount support

Install Brackets **3FL** and **3FR** to assemblies **3.4L** and **3.4R**. Use 4 x **B2** - M8 x 20 Din 912 and 4 x **SN** T-Slot Nuts per profile. Use **No.6 Hex Key**. Do not tight the fasteners yet! Install **C1** Plastic cap to **3.4L** and **3.4R** assemblies. Press by hand.



**Step 3.72** - Install Wheelbase to mounting bracket **3.2** Use 4 x **B2.5** - M8 x 25 din 912 with washers. (**B2.5** Fasteners are included with the fanatec side mount support brackets.) Center the wheelbase and tight all **B2** - M8 x 20 Din 912 fasteners from step **3.71**. Use **No.6 Hex Key**. Adjust wheelbase tilt angle and tight all **B2.5** - M8 x 25 din 912.

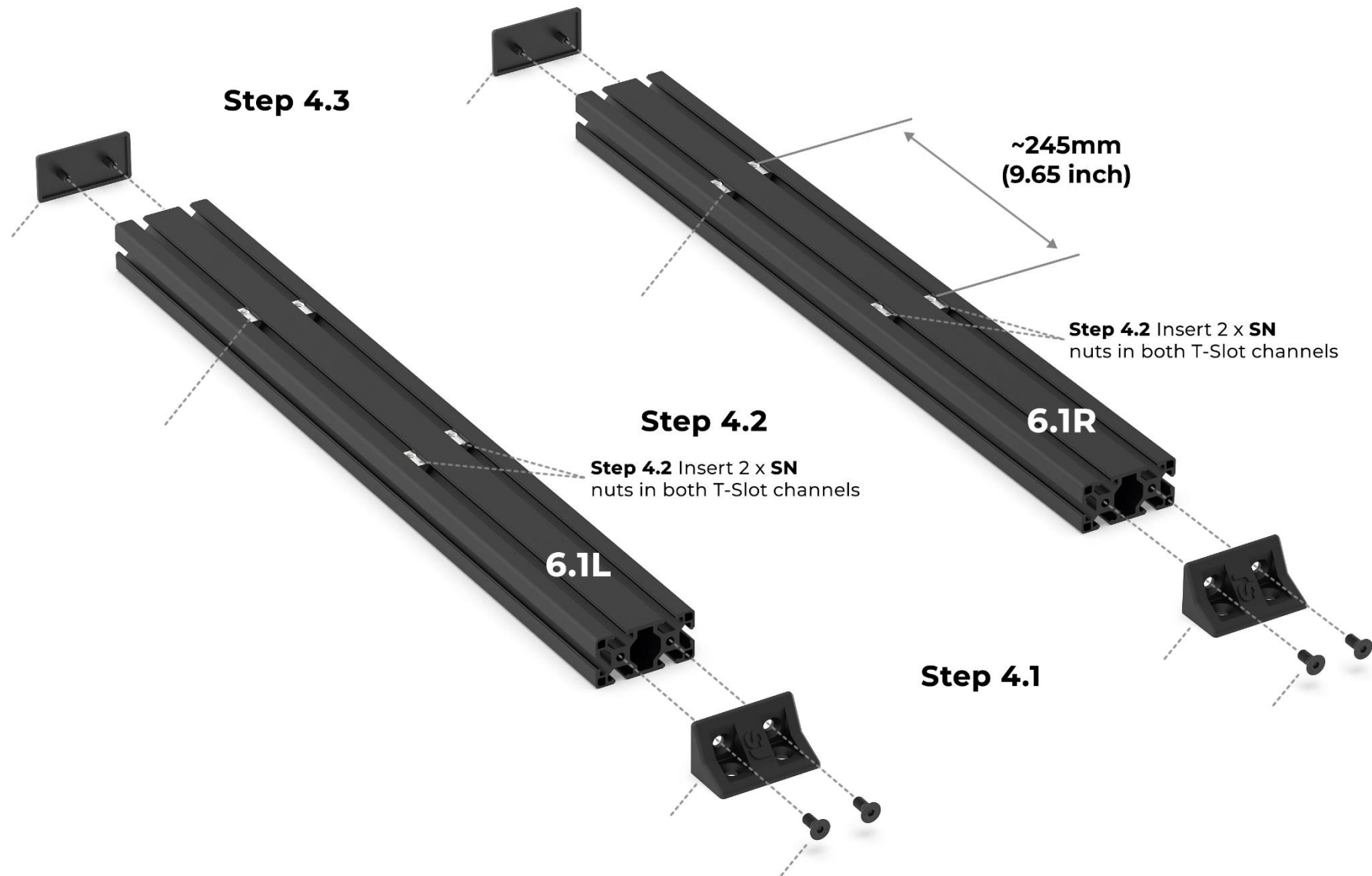




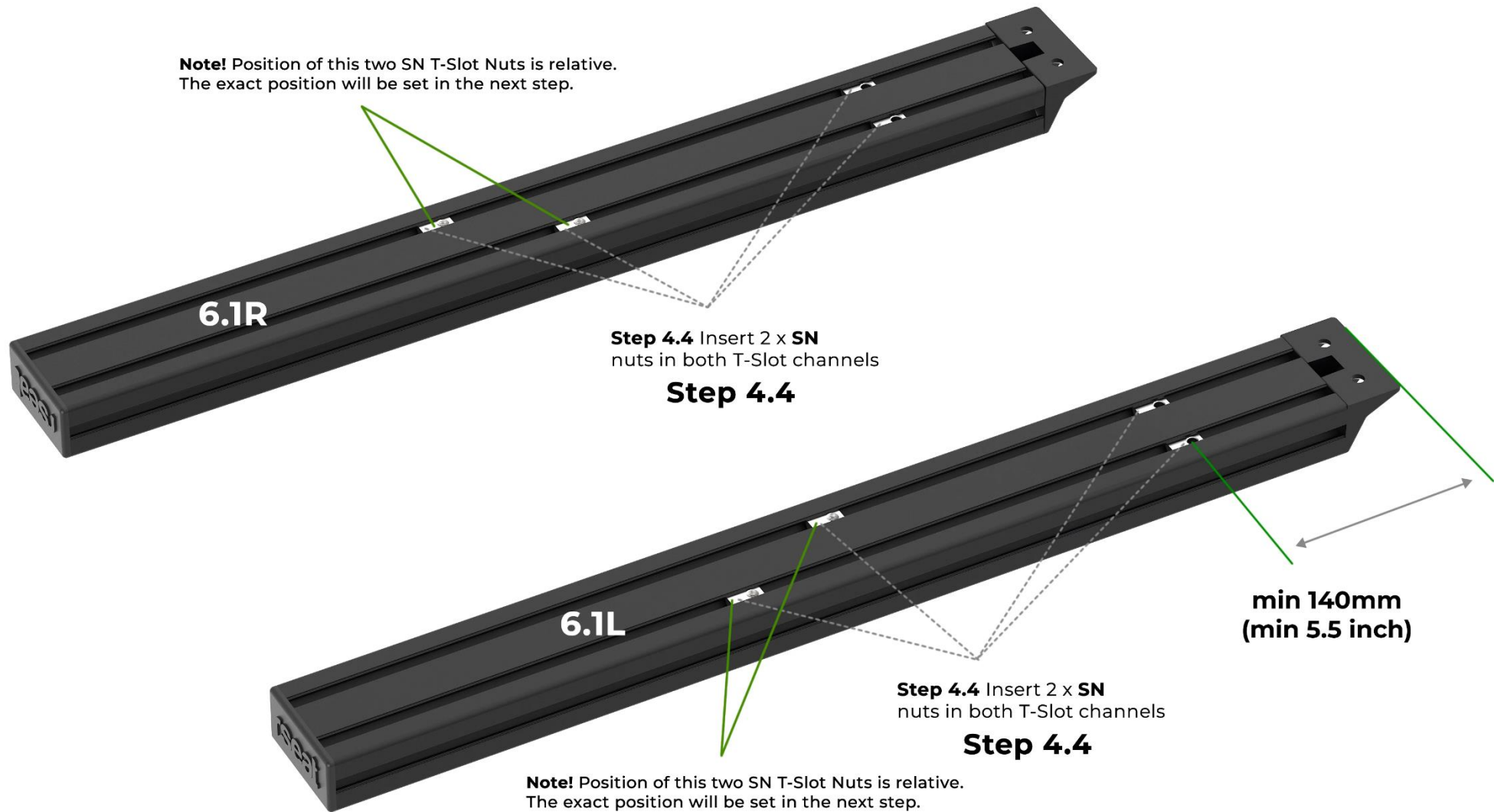
**Step 4.1** Install **L2** Bracket to assemblies **6.1L** and **6.1R**. Use 2 x **B2** - M8 x 20 Countersunk. Use **No.5 Hex Key**.

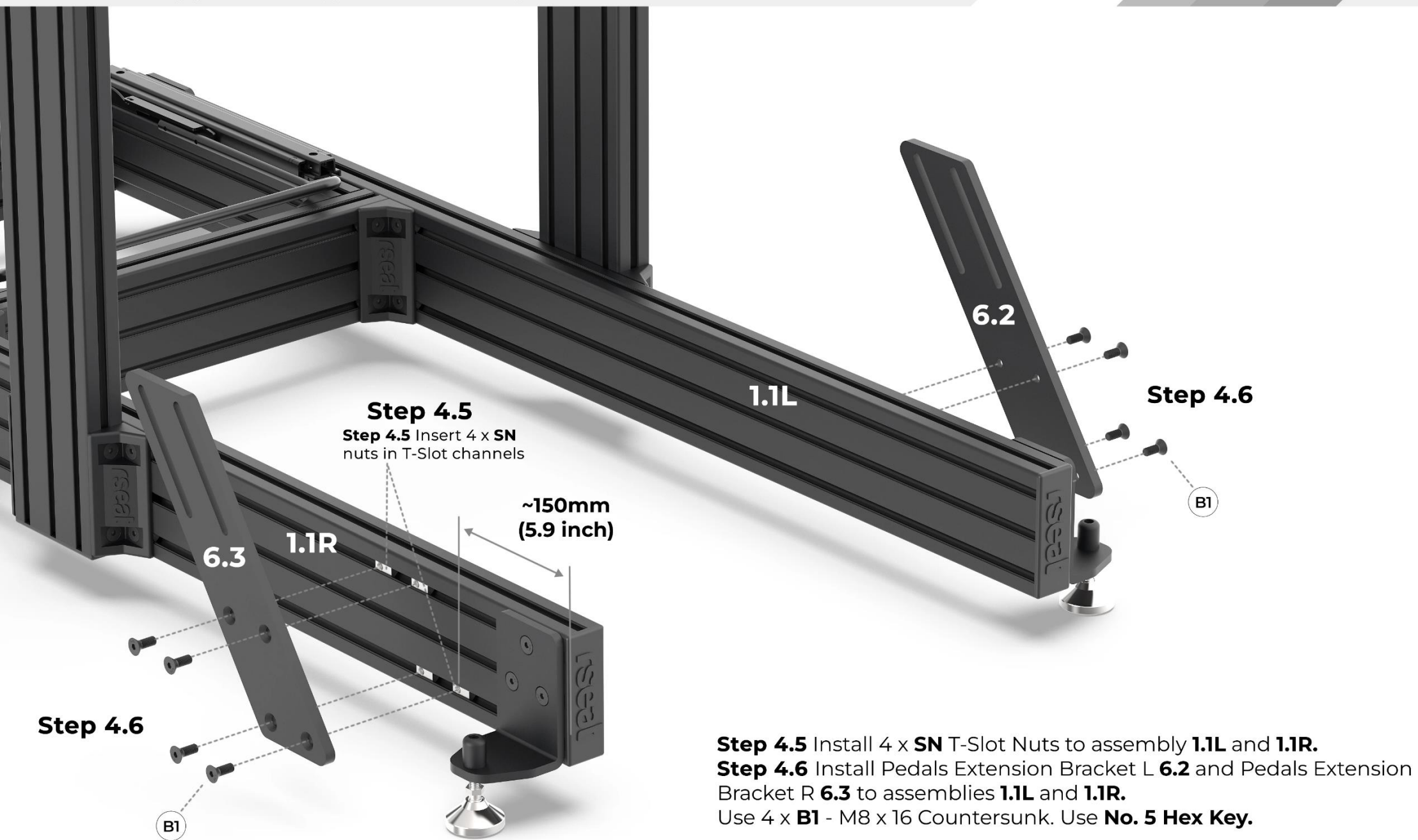
**Step 4.2** Install 4 x **SN** T-Slot Nuts to assemblies **6.1L** and **6.1R**.

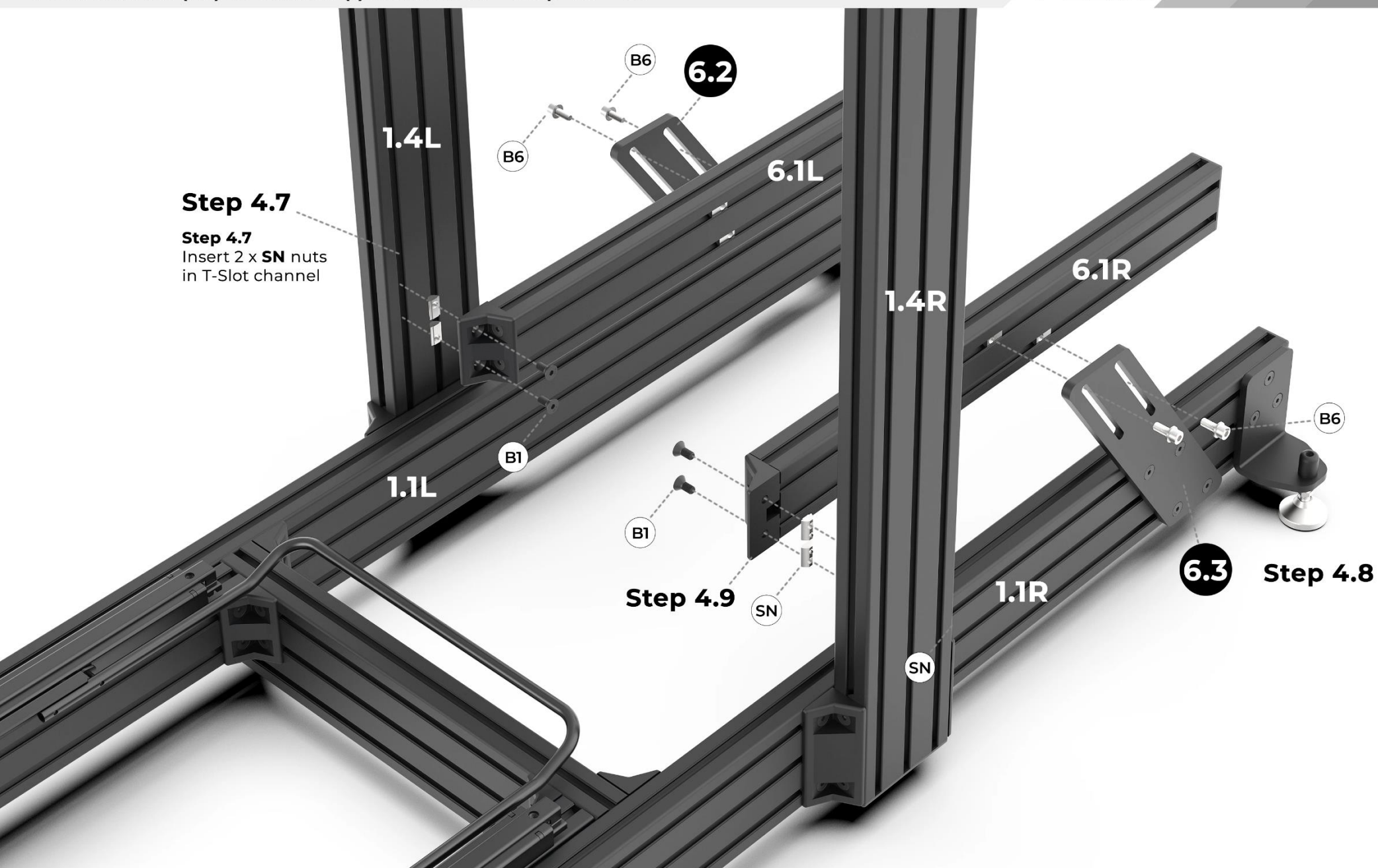
**Step 4.3** Install **C1** Plastic cap to assemblies **6.1L** and **6.1R**. Press by hand.



Following **step 4.3** rotate assemblies **6.1L** and **6.1R** - 180 degrees.  
**Step 4.4** Install 4 x **SN** T-Slot Nuts to assemblies **6.1L** and **6.1R**.





**Step 4.7**

**Step 4.7**  
Insert 2 x **SN** nuts  
in T-Slot channel

**Step 4.9**

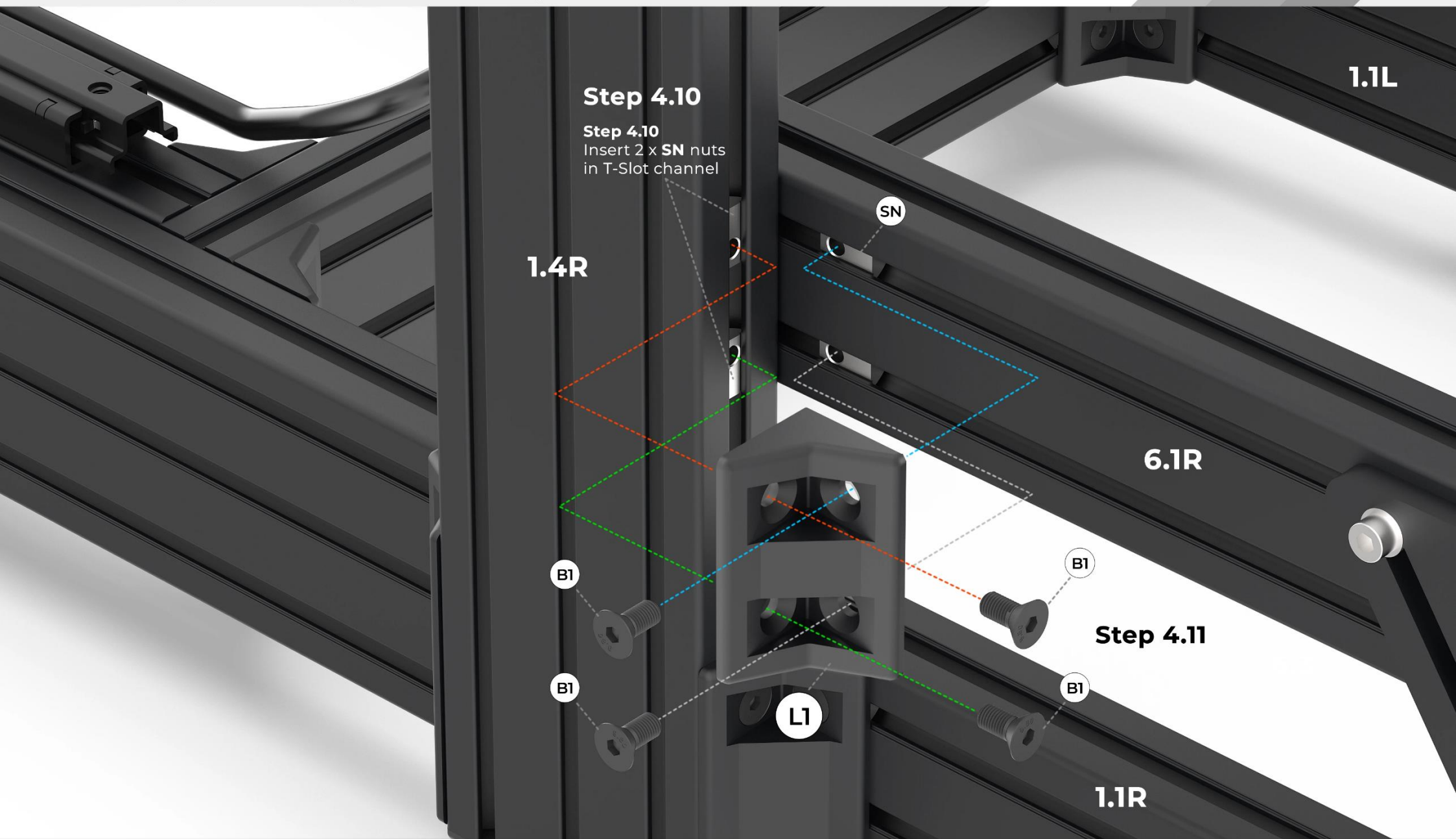
Align assemblies **6.1L** and **6.1R** to match Step 4.8 T-Slot Nuts and bolt on together assemblies **6.1L / 6.1R** and assemblies **1.4L / 1.4R**. Use 4 x **B1** - M8 x 16 Countersunk. Use **No. 5 Hex Key**.

**Step 4.8**

**Step 4.7** Install 2 x **SN** T-Slot Nuts to assemblies **1.4L** and **1.4R**.

**Step 4.8** Install assemblies **6.2** and **6.3** to assemblies **6.1L** and **6.1R**. Use 4 x **B6** - M8 x 20 din 912. Only connect by hand. Leave it loose without tightening.

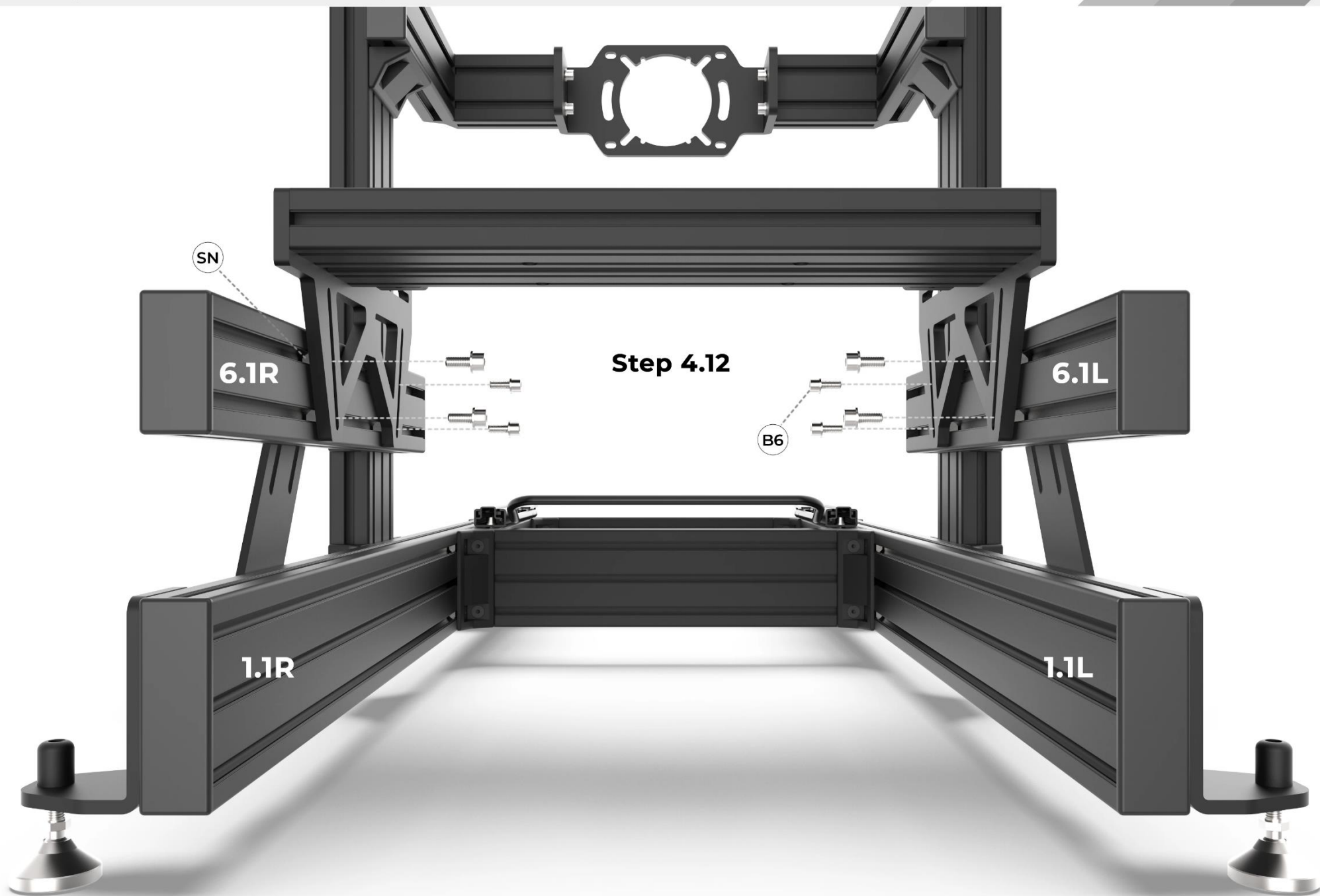
**Step 4.9** Align assemblies **6.1L** and **6.1R** to match Step 4.8 T-Slot Nuts and bolt on together assemblies **6.1L / 6.1R** and assemblies **1.4L / 1.4R**. Use 4 x **B1** - M8 x 16 Countersunk. Use **No. 5 Hex Key**.



**Step 4.10** Install 2 x **SN** T-Slot Nuts to assemblies **1.4L** and **1.4R**.

**Step 4.11** Install **L1** Bracket to assemblies **6.1L/1.4L** and **6.1R/1.4R**. Use 8 x **B1** - M8 x 16 Countersunk. Use **No.5 Hex Key**.

**NOTE!** You can now tight all fasteners to lock in position.



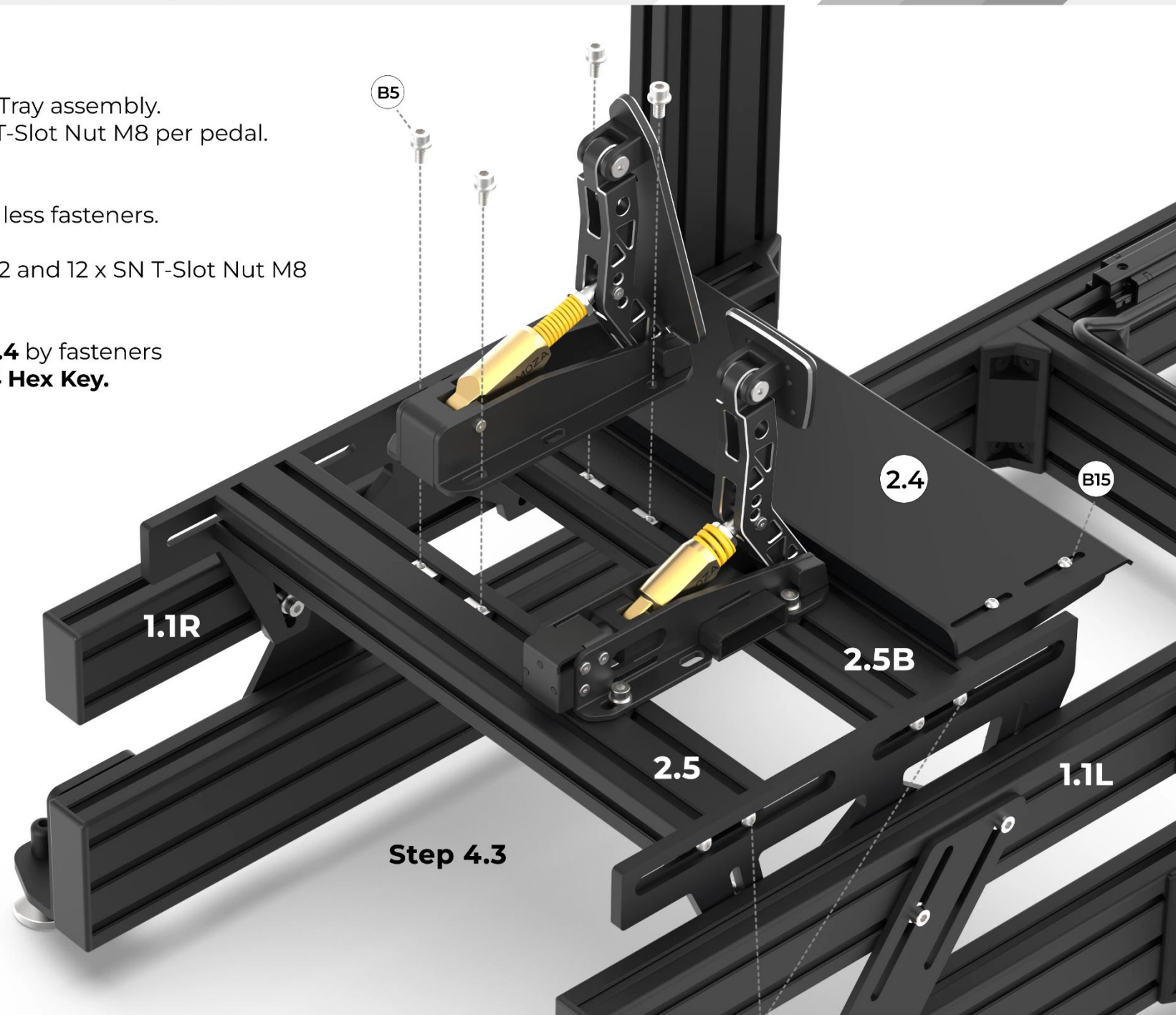
**Step 4.12** Connect Pedal Tray assembly to assembly **6.1L** and **6.1R**. Use 8 x **B6** - M8 x 20 din 912. Use **No.6 Hex Key** to lock in desired angle and position to assembly **6.1L** and **6.1R**.

**Step 4.31** Connect Pedals to Pedal Tray assembly.  
Use 4 x **B5** - M8 x 16 din 912, 4 x SN T-Slot Nut M8 per pedal.  
Use **No.6 Hex Key**.

**Note!** Some pedals set may require less fasteners.

Provided are 12 x **B5** - M8 x 16 din 912 and 12 x SN T-Slot Nut M8 fasteners to mount your pedals set.

Slide the pedals heel support tray **2.4** by fasteners **B15** - M6 x 12 button head. Use **No.4 Hex Key**.



**Note!** Move **2.5** and **2.5B** to match pedals mounting points.  
Adjust by the **B17** bolts on the side. Use **No.5 Hex Key** to lock in desired position.

**Step 4.32** Connect Pedals bottom mounting brackets **2.6** to Pedals tray main beam supports **2.5** and **2.5B**. Install 4 x **2.6** mounting Brackets. Use 4 x **B5** M8 x 16 din 912, 4 x SN T-Slot Nut M8 (see fig 1.1). Locate the mounting location depending of your pedals mounting pattern. Use **No.6 Hex Key**.

You can install the mounting brackets front or back of each profile **2.5**.

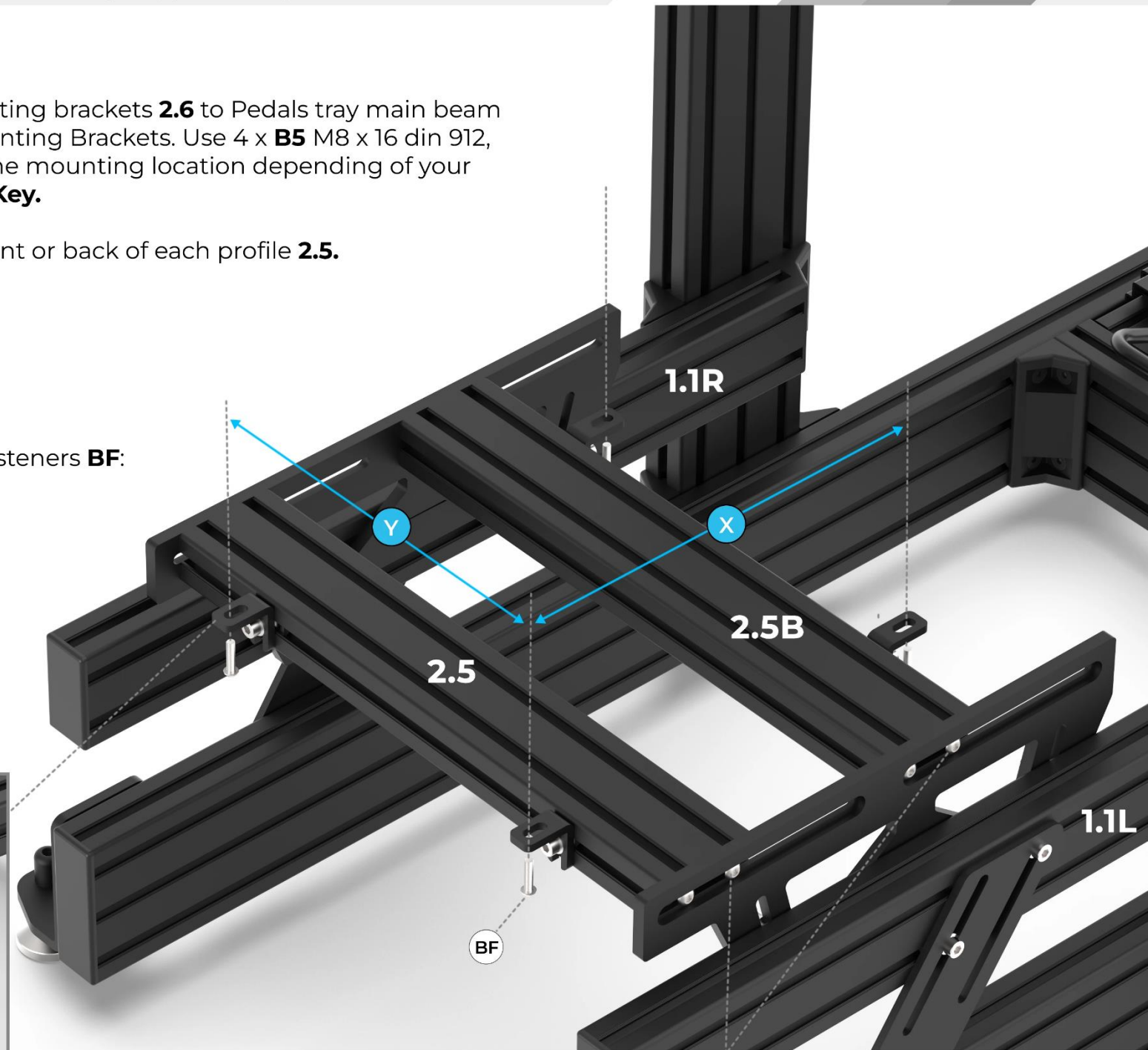
Supported patterns:

**X**-min 20mm **X**-max - 480mm

**Y**-min 20mm **Y**-max - 460mm

Bottom mounting brackets supported fasteners **BF**:  
M6 up to M8

Fig 1.1



**Note!** Move **2.5** and **2.5B** to match pedals mounting points. Adjust by the **B17** bolts on the side. Use **No.5 Hex Key** to lock in desired position.



**Step 5.1** Install Brackets **4.2F-L** (left) and **4.2F-R** (right) to seat **4.1F** (RSEAT Formula seat or Sparco GP seat). Use 4 x **B3** - M8 x 30 din 912. Use **No.6 Hex Key**.





**Step 5.2** Install Brackets **4.2F-L** (left) and **4.2F-R** (right) to seat sliders **1.10**. Use 4 x **B5** (2 front and 2 back) - M8 x 16 din 912. Use **No.6 Hex Key**.

Your **A1-120 Formula** cockpit is ready!  
Thank you for choosing us!

If you still need help, contact us at  
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