

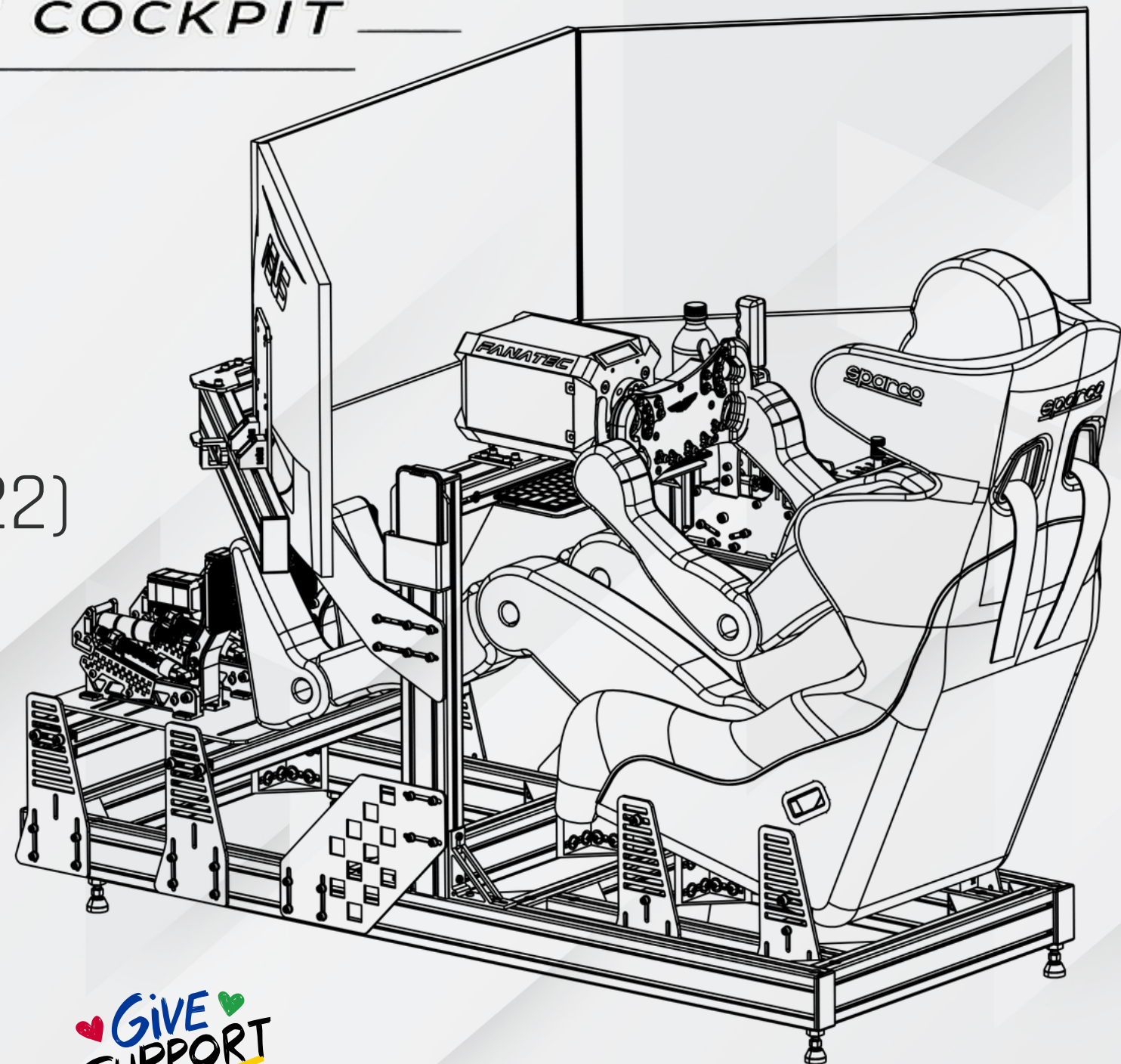
RIGFORCE —EVO 01—

— DIY ALUMINUM PROFILE COCKPIT —

v1.2 (August 10, 2026)

USER MANUAL

- Full Assembly Tutorial (2-17)
- Bill of Materials (18-20)
- Frequently Asked Questions (21-22)



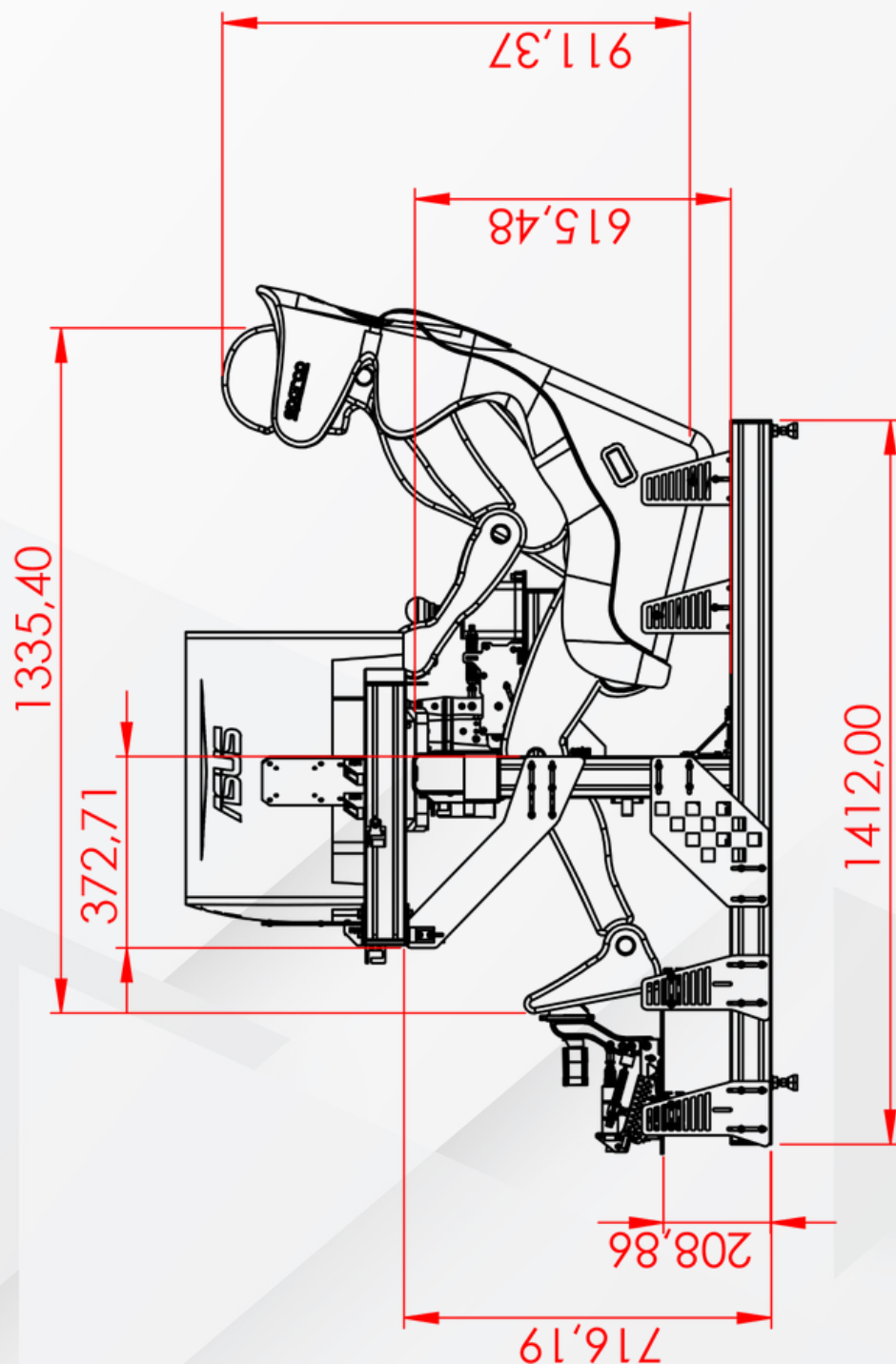
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Useful information



BUILD MATERIAL

- 4080 Aluminum Profile
- 2D Cutting Plates (5mm & 3mm Thickness)
- Aluminum & 3D Printed Brackets

FIT FOR DRIVERS

- Maximum Weight: 150kg / 330 Pounds
- Min/Max Height: 1m55 - 1m90 / 5'2" - 6'3"

DISPLAY SETUP

- Triple Monitor: 21" - 32" Screens
- Single Monitor: Up to 49" Ultra Wide

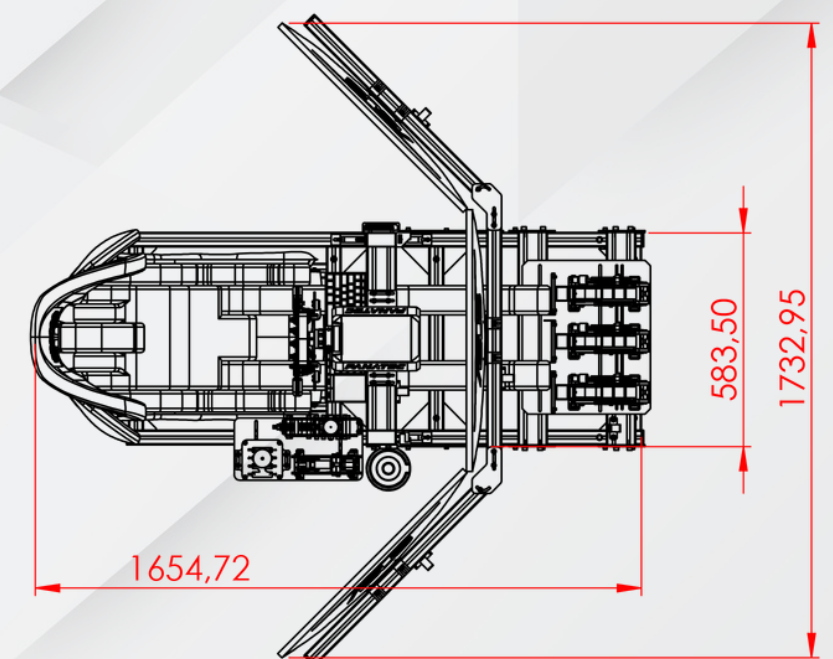
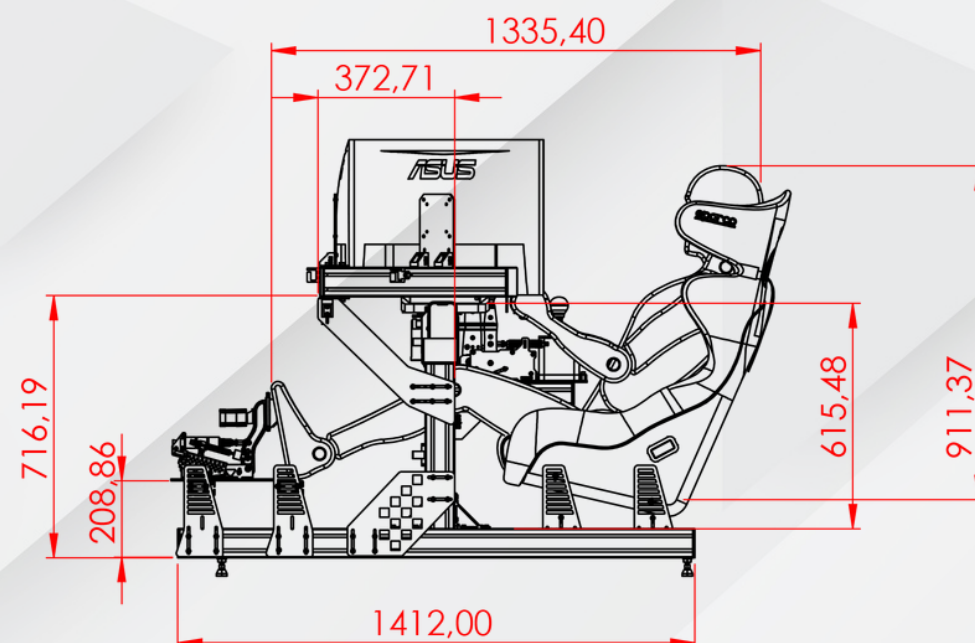
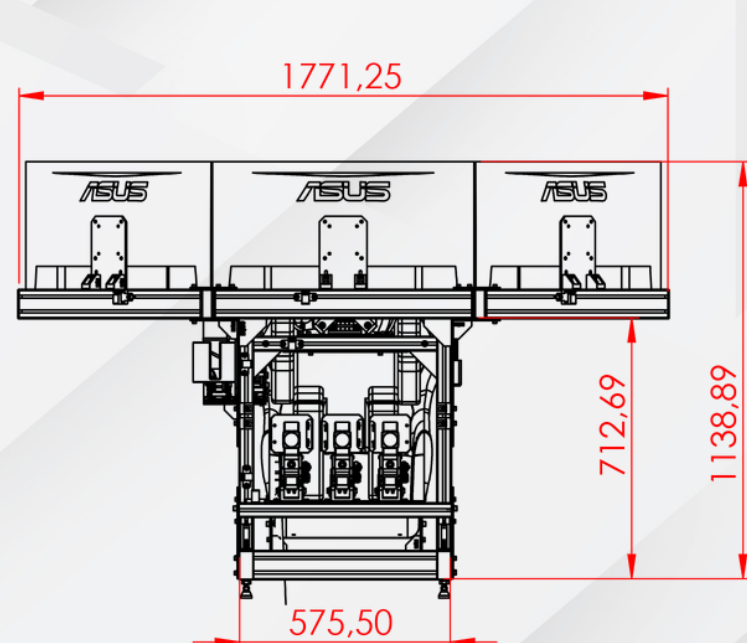
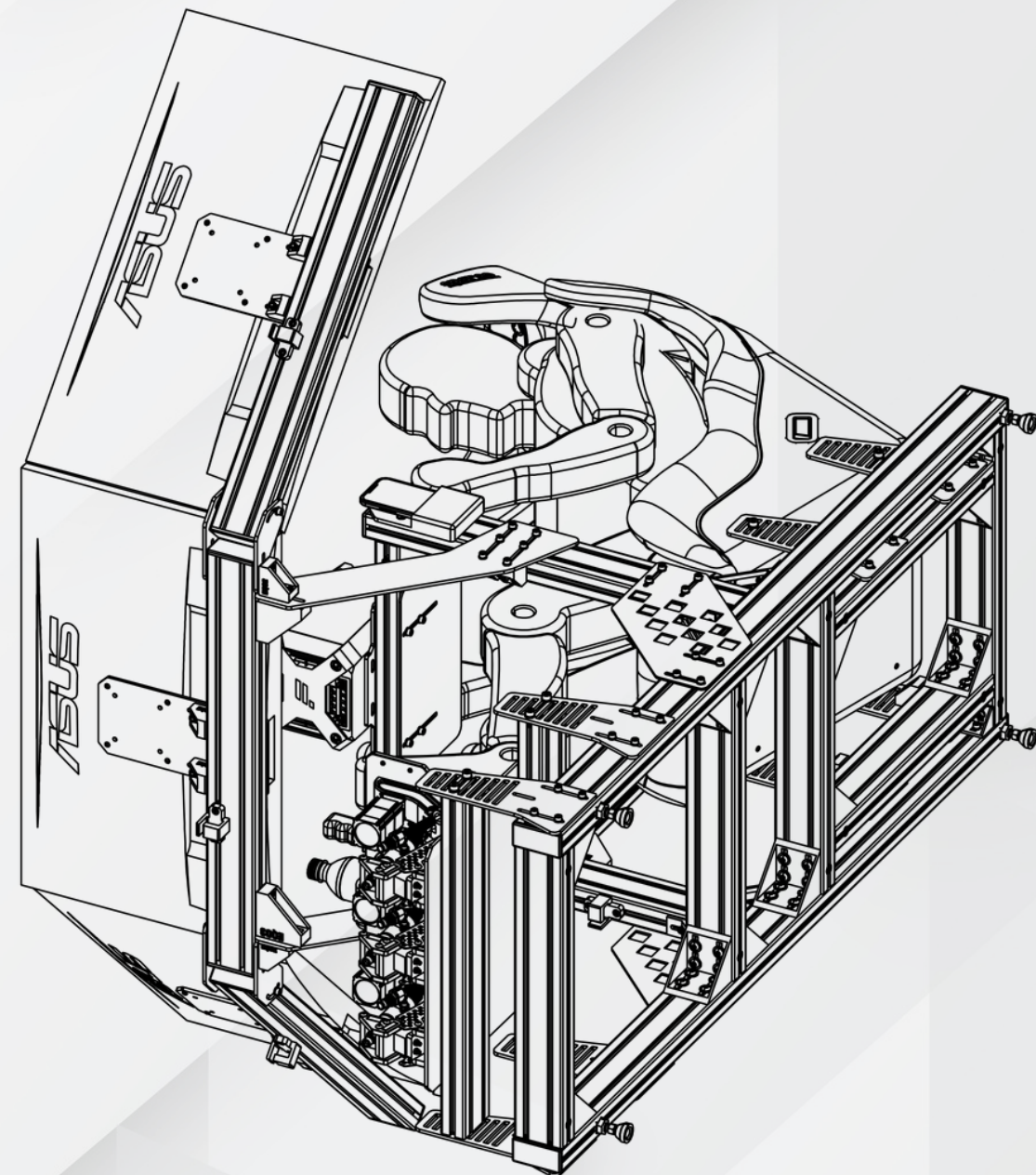
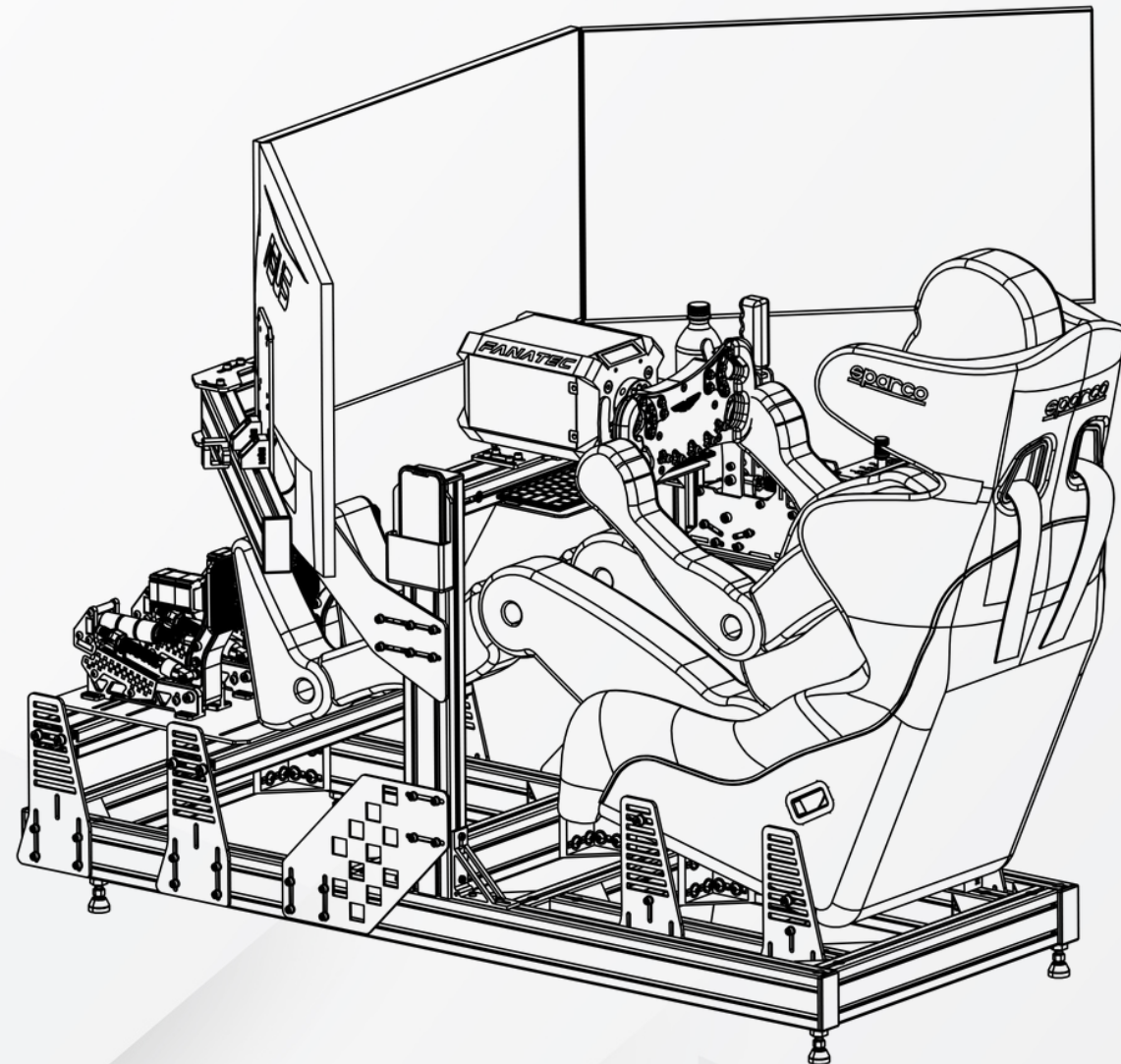
DIFFICULTY & TIME

- Difficulty: Easy (1/3)
- Assembly Time: ~4 Hours

ESSEN TOOL REQUIRED

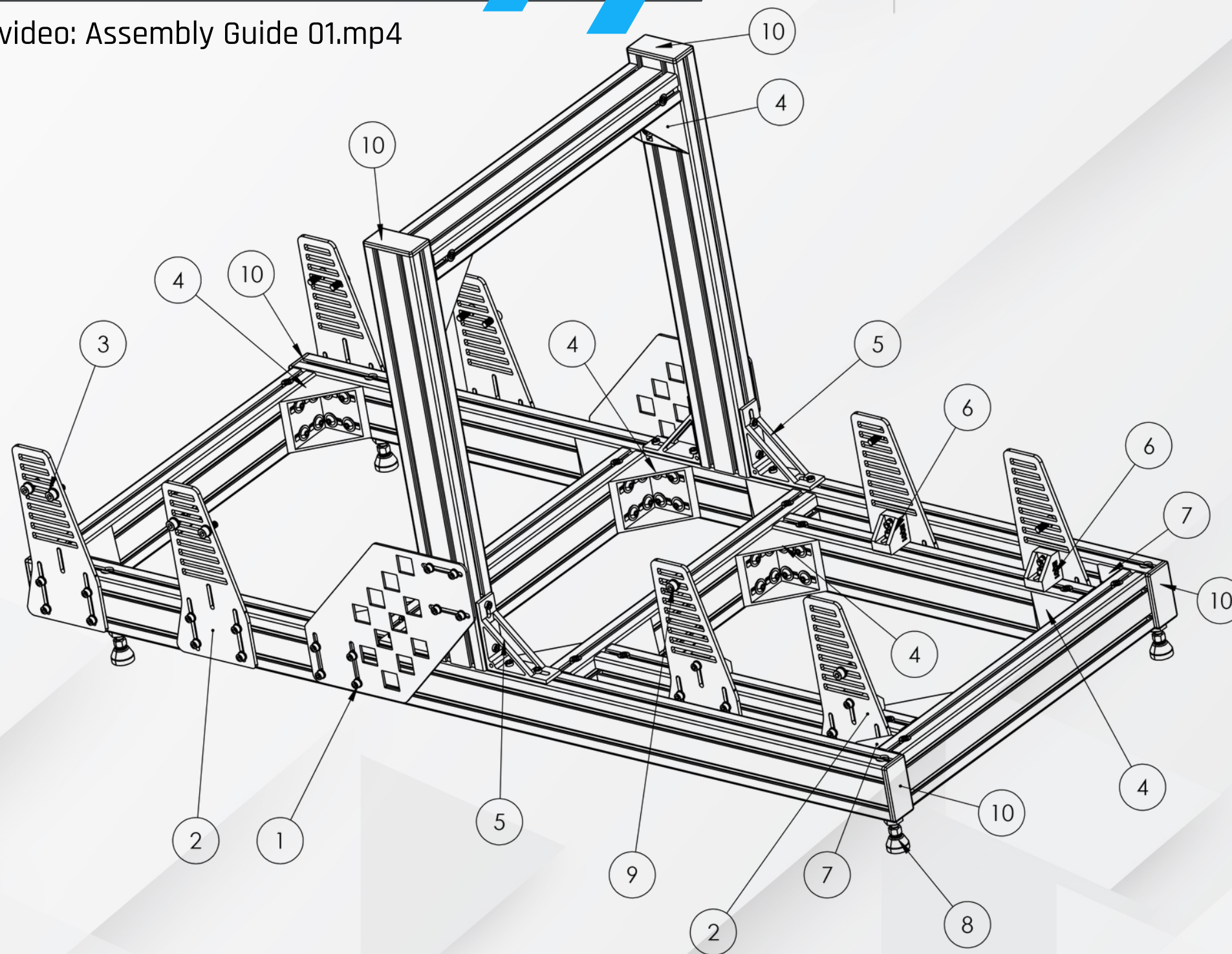
5mm Allen Key

Overview & Dimensions



Base Structure Assembly 1/2

Related help video: Assembly Guide 01.mp4



1 M6x16 + M6 Washer + M6 Profile Nut
Quantity: 16
Part Name: Side Steering Wheel Support - 3mm Thickness - Quantity 2

2 M6x16 Bolt + M6 Washer + M6 Profile Nut
Quantity: 32
Part Name: Side Seat and Pedals Support - 5mm Thickness - Quantity 4

3 M8x20 + M8 Washer
Quantity: 8
Note: Fixing of the Pedals

4 4080 Profile Bracket - Quantity 14
Required Screws: M6x20 + M6 Washer + M6 Profile Nut - Quantity: 112

5 100x100 Profile Bracket - Quantity 4
Required Screws: M6x16 Bolt + M6 Washer + M6 Profile Nuts
Quantity: 16
Note: you can use the "Bracket EQ03" 3D Printed Part

6 Bracket EQ01 3D Printed Bracket
Quantity: 4
Required Screws:
• M6x30 + M6 Washer + M6 Nut - Quantity 4
• M6x25 + M6 Washer + M6 Profile Nuts - Qte 4

7 4040 Bracket - Quantity 4
Required Screws:
M6x16 + M6 Washer + M6 Profile Nut
Quantity: 8
Note: you can use the "Bracket EQ02" 3D Printed Part

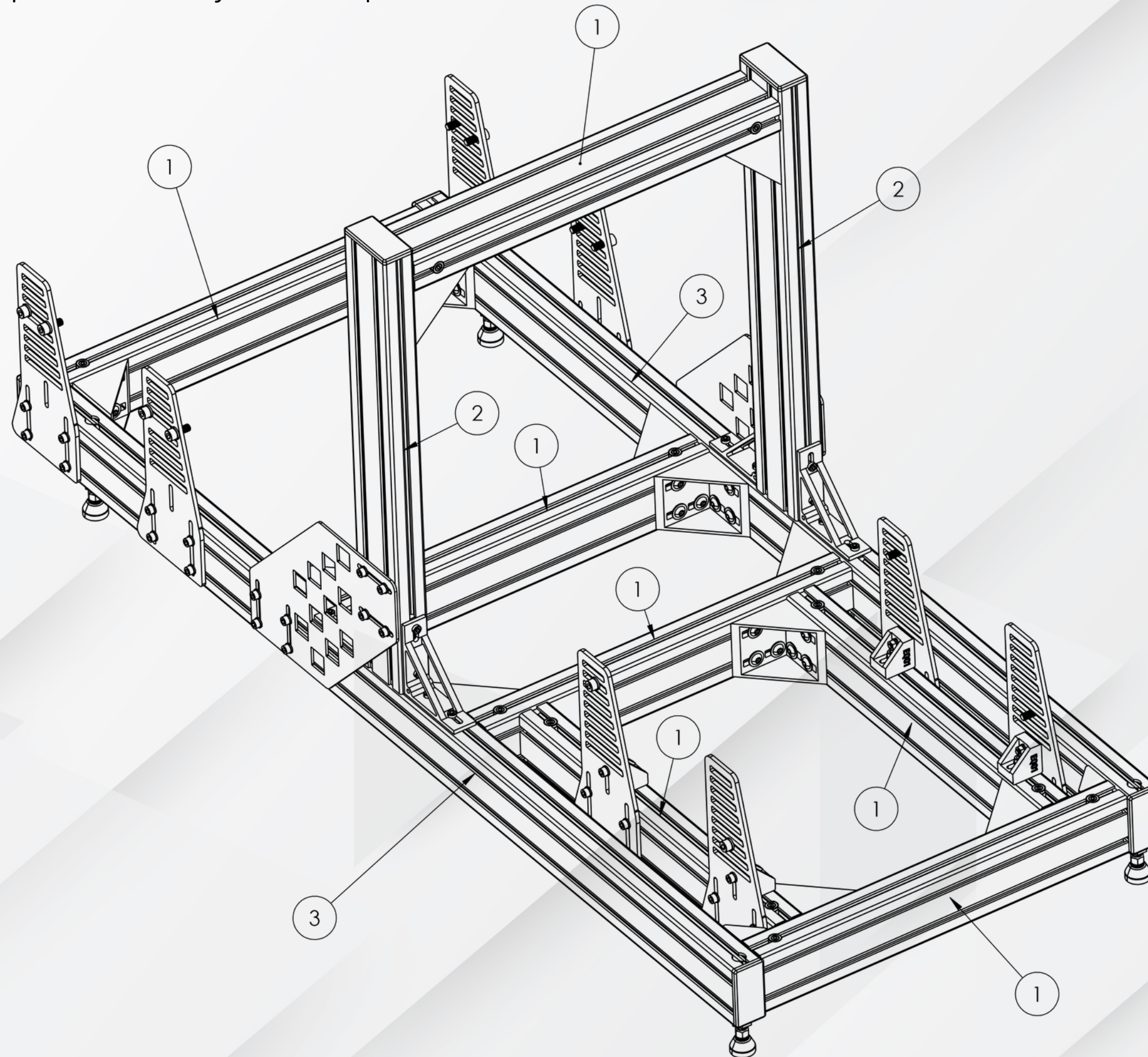
8 Optional M8 stand - Quantity 4

9 Seat Side Fixing.
M8x20 + M8 Washer
Quantity: 4

10 4080 Protective Cap - Quantity 6

Base Structure Assembly 2/2

Related help video: Assembly Guide 01.mp4



① 4080 Profile
Width: 500mm
Quantity: 7

② 4080 Profile
Width: 600mm
Quantity: 2

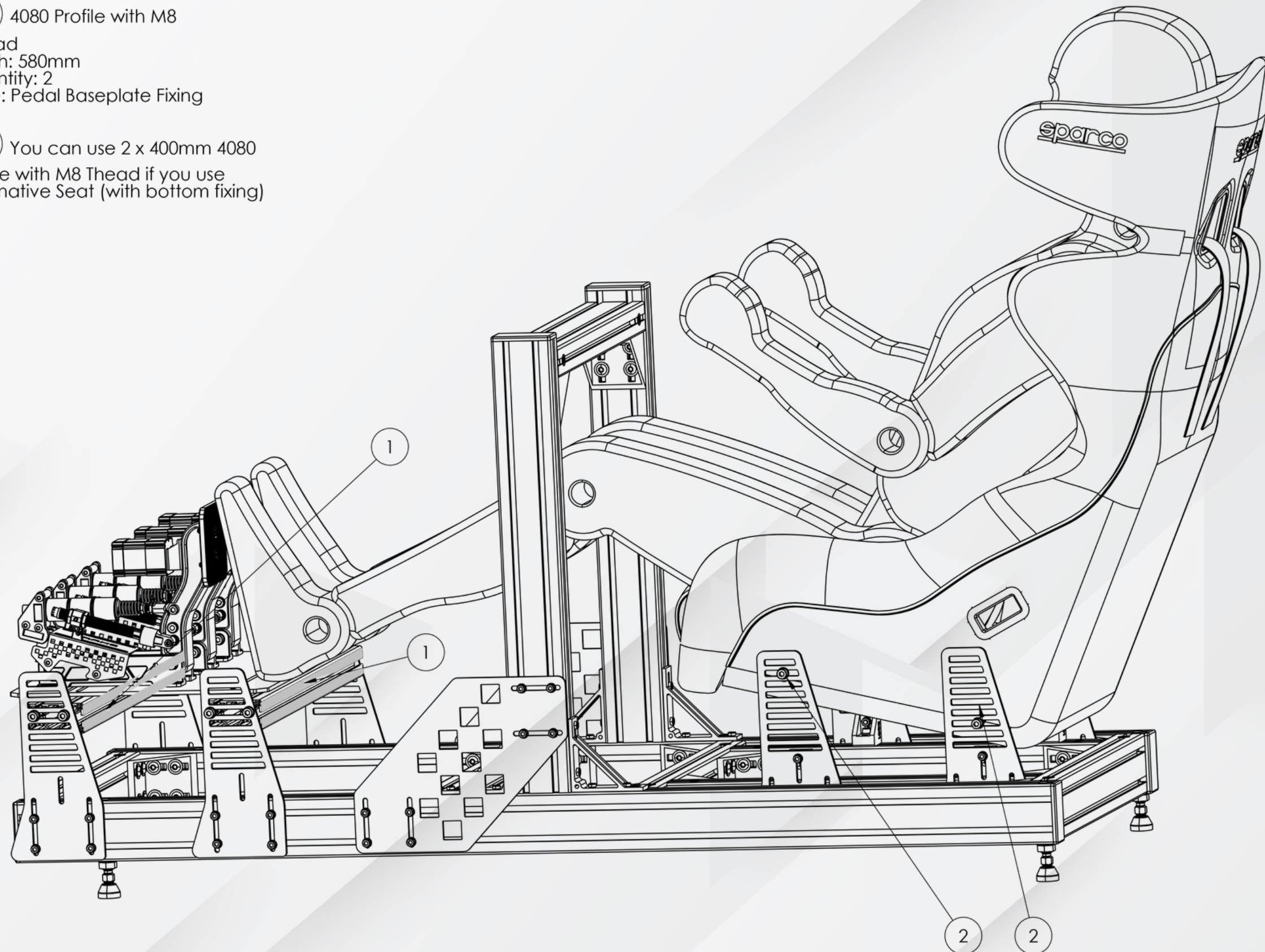
③ 4080 Profile
Width: 1400mm
Quantity: 2
Note: You can use a 1600mm
size profile if you are taller
than 1.90 m (6'3")

Seat & Pedal Fixing 1/2

Related help video: Assembly Guide 02.mp4

1 4080 Profile with M8
Thread
Width: 580mm
Quantity: 2
Note: Pedal Baseplate Fixing

2 You can use 2 x 400mm 4080
Profile with M8 Thread if you use
alternative Seat (with bottom fixing)

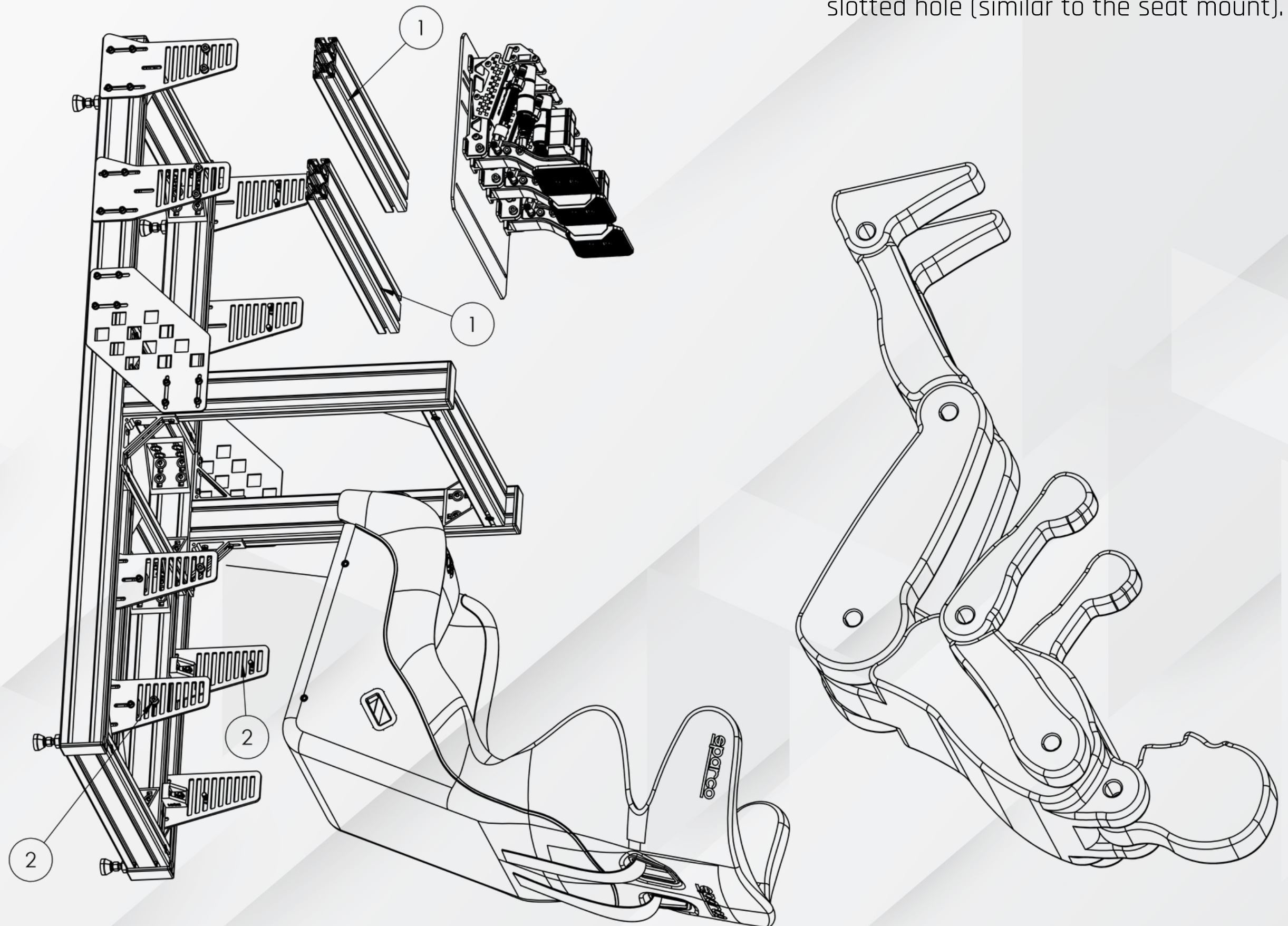


Seat & Pedal Fixing 2/2

Related help video: Assembly Guide 02.mp4

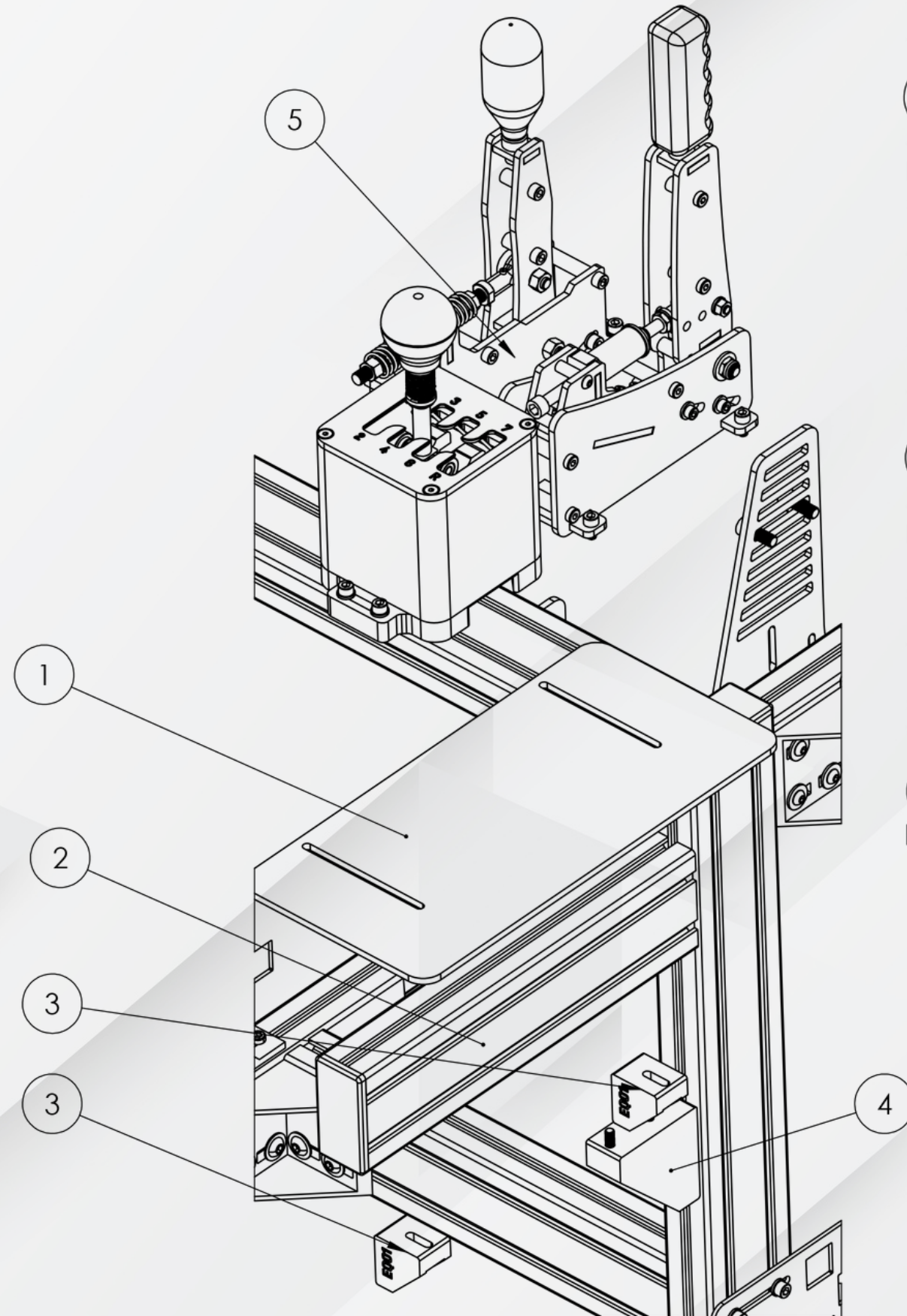
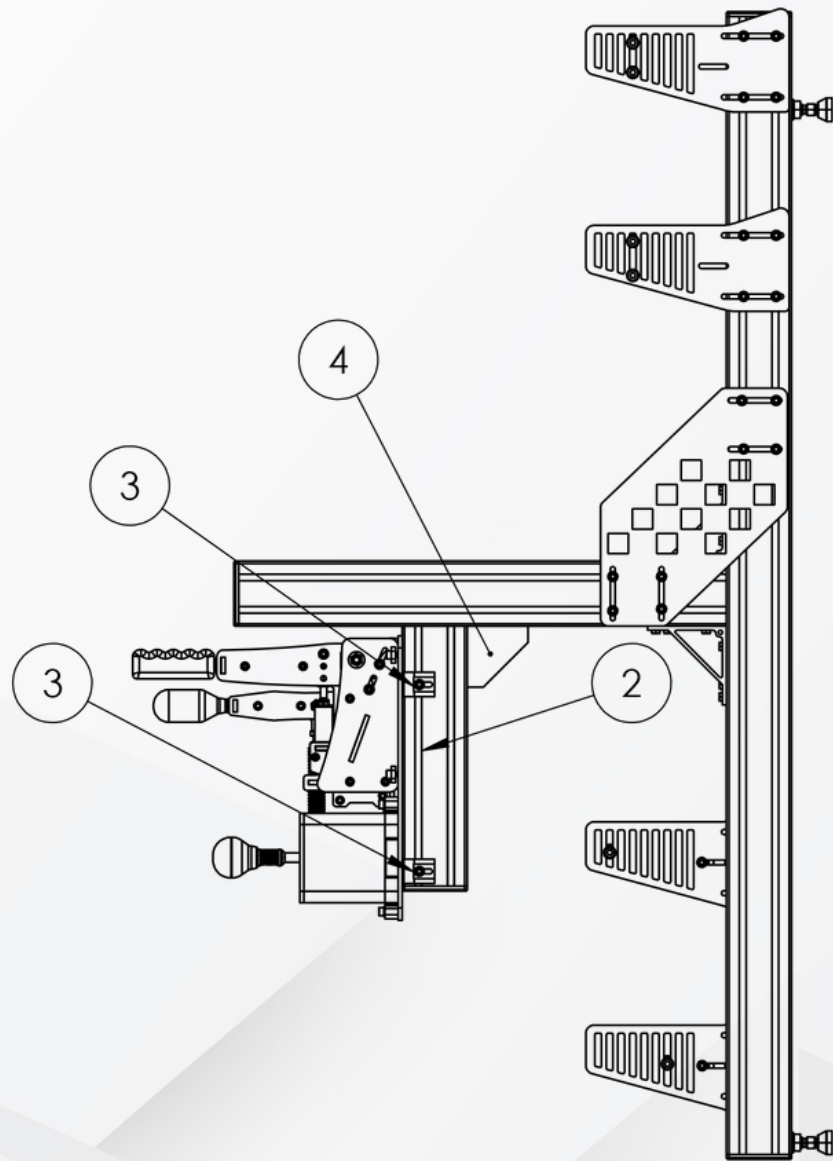
Important note:

- Regarding the pedals set adjustment, for the **two highest slots**, you will need to use 3060 profiles or 4040 profile instead 4080.
- You can reinforce your mounting setup using the **3D-printed EQ01 brackets** via the central slotted hole (similar to the seat mount).



Shifters & Handbrake Mount

Related help video: Assembly Guide 03.mp4



1 Part name: Side Hardware Support - 5mm Thickness

2 4080 Profile with Covering cap
Width: 320mm
Quantity: 1

3 3D Printed Bracket EQ01
Quantity: 2
Required Screws:
M6 x 25 Bolt + M6 Washer + M6 Profile Nut
Quantity: 2

Optional:
M6 x 25 Bolt + M6 Washer + M6 Profile Nut
Quantity: 2

4 3D Printed Bracket EQ03
Quantity: 1
Required Screws:

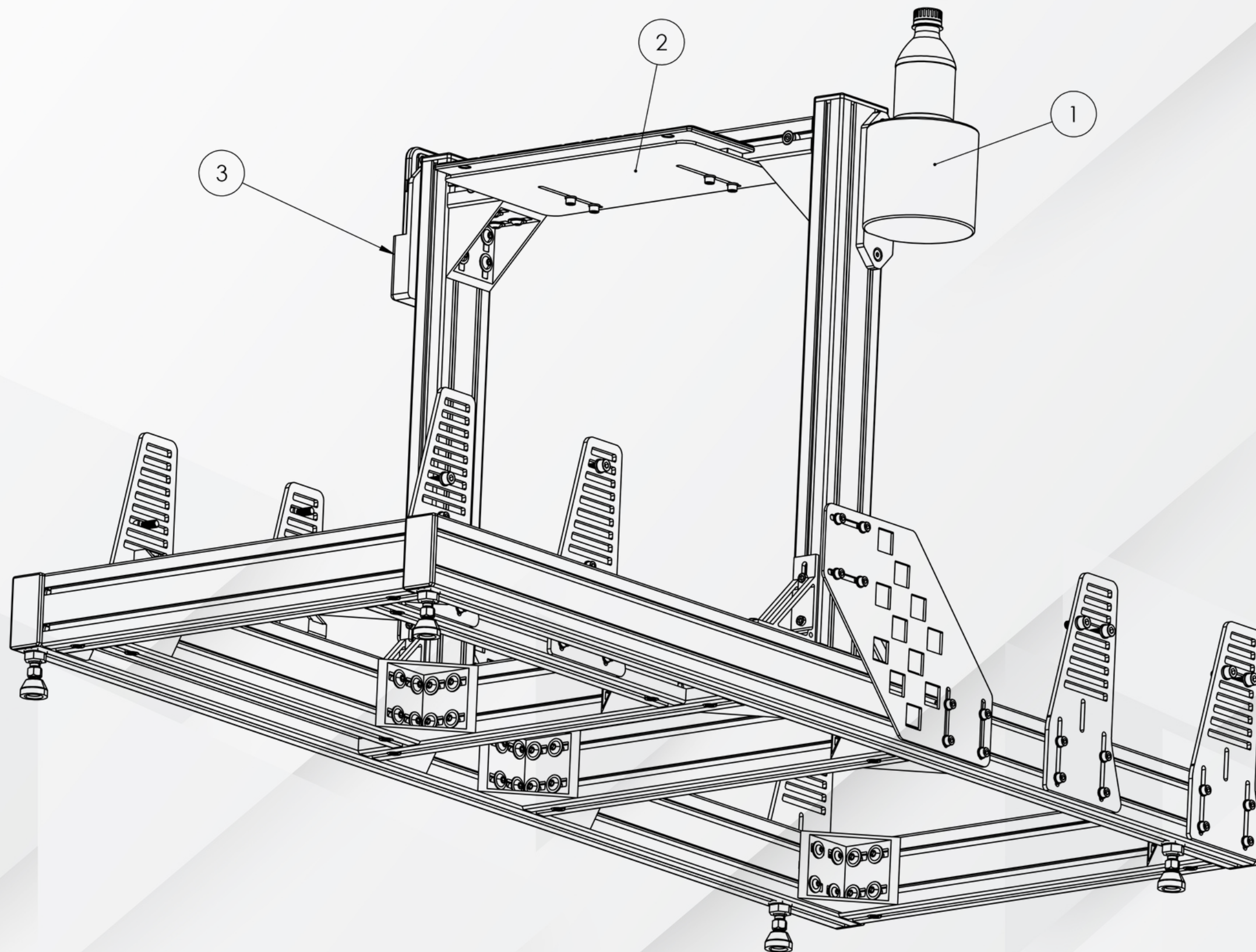
M6x30 Bolt + M6 Washer + M6 Profile nut
Quantity: 2

M6x25 Bolt + M6 Profile Nut
Quantity: 2

5 DIY Sim Studio Shifters & Handbrake

Keyboard/Mug/Phone Holder 1/2

Related help video: Assembly Guide 04.mp4



1 3D Printed File: Mug and Bottle Holder.STL

Required Screws:
M6x20 Countersunk Bolt + M6 Profile Nut
Quantity: 2

2 Part Name: Keyboard Support - 3mm Thickness

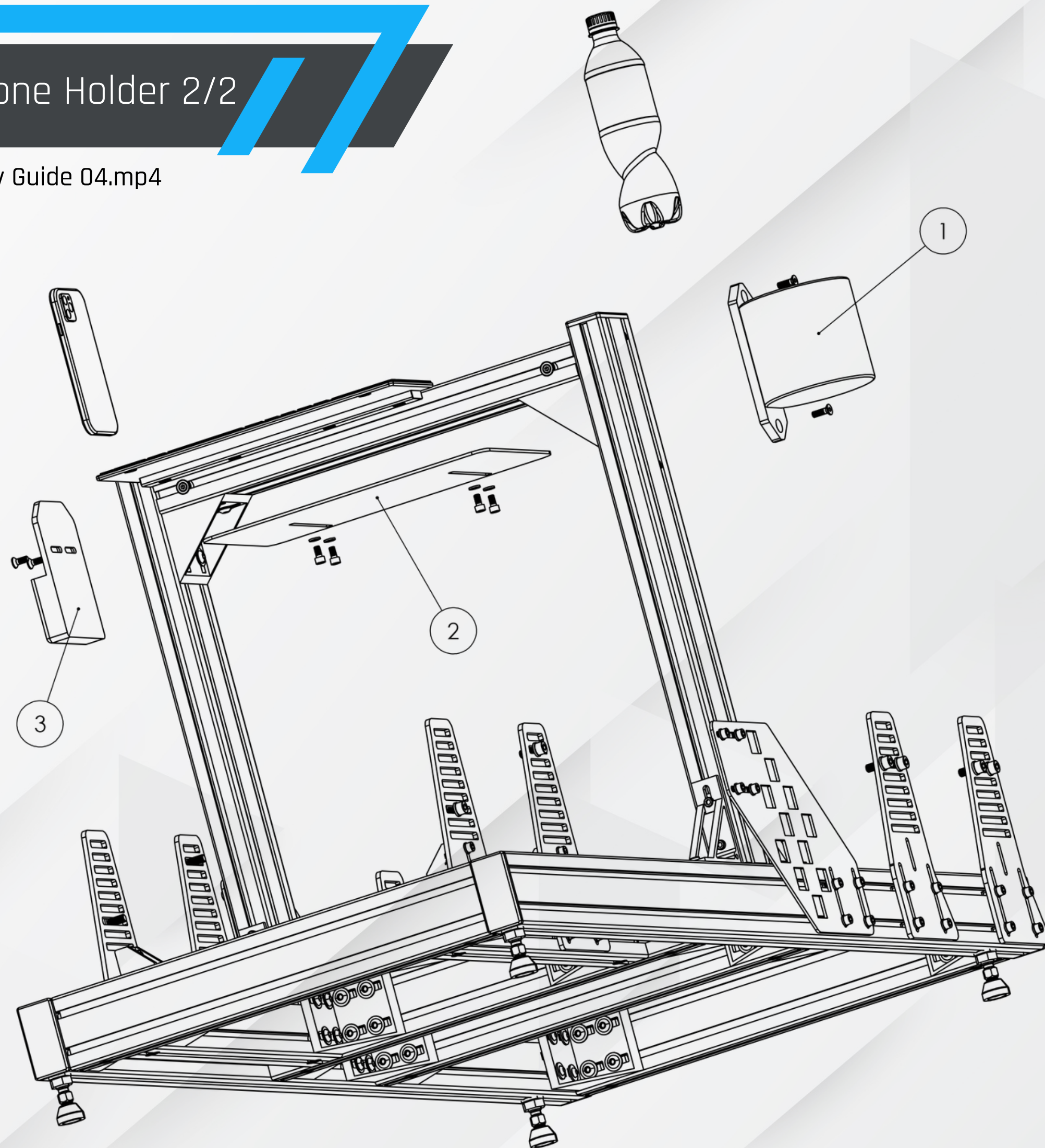
Required Screws:
M6X12 Bolt + M6 Washer + M6 Profile Nut
Quantity: 4

3 3D Printed File: Phone Holder.STL

Required Screws:
M6x16 Countersunk Bolt + M6 Profile Nut
Quantity: 2

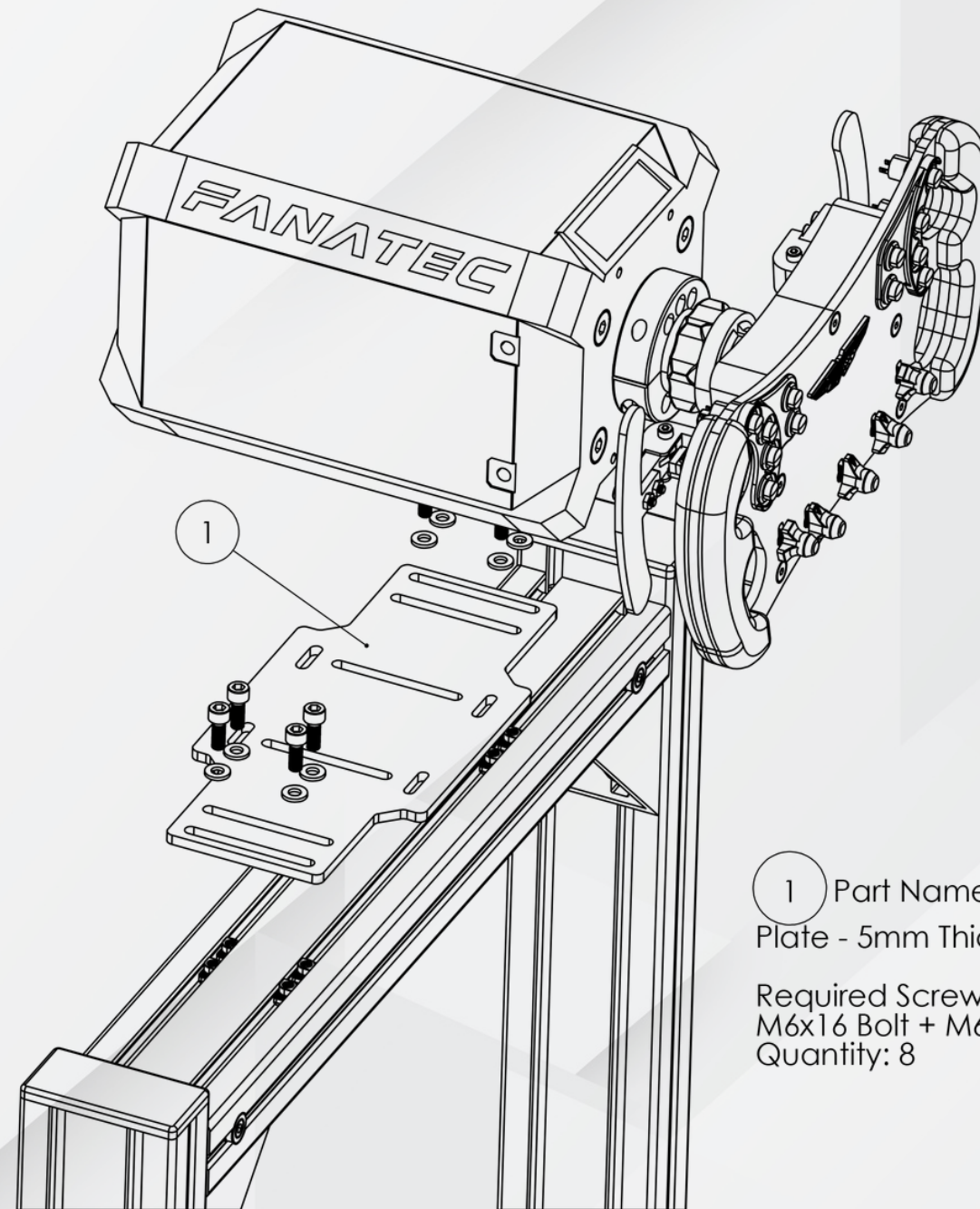
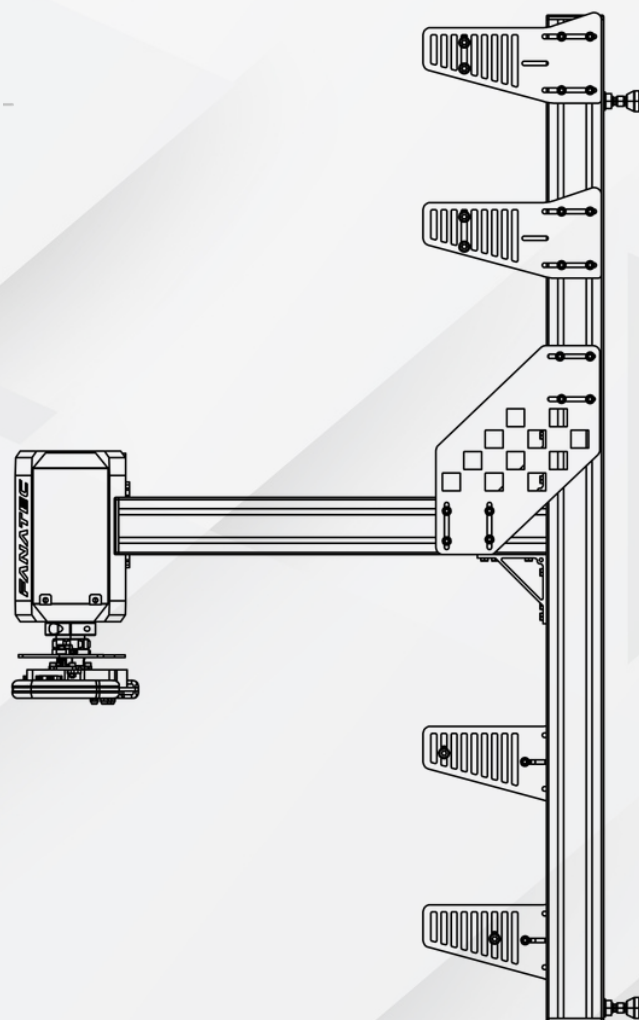
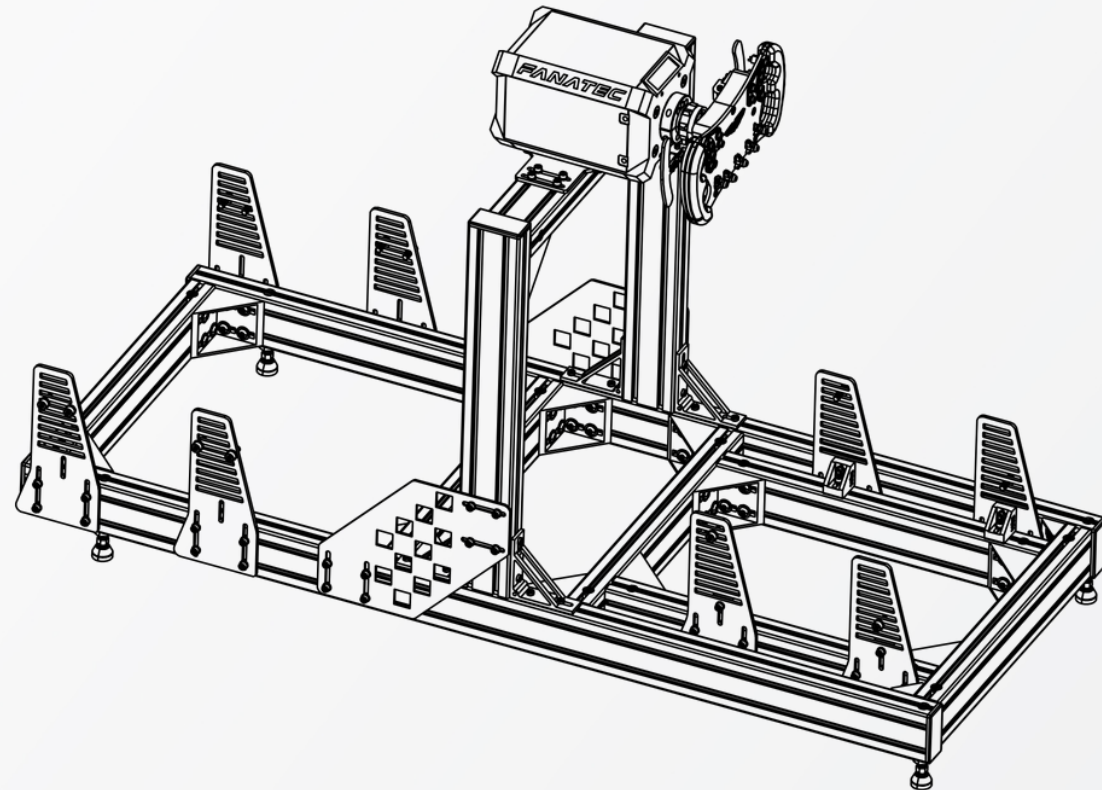
Keyboard/Mug/Phone Holder 2/2

Related help video: Assembly Guide 04.mp4



Fanatec DD Wheel Mount

Related help video: Assembly Guide 05.mp4

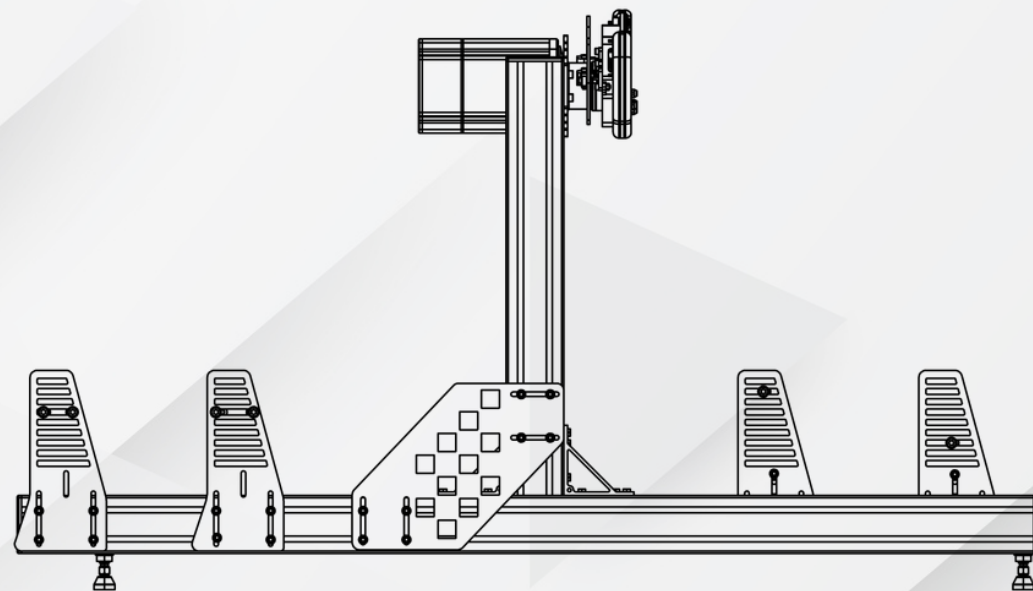
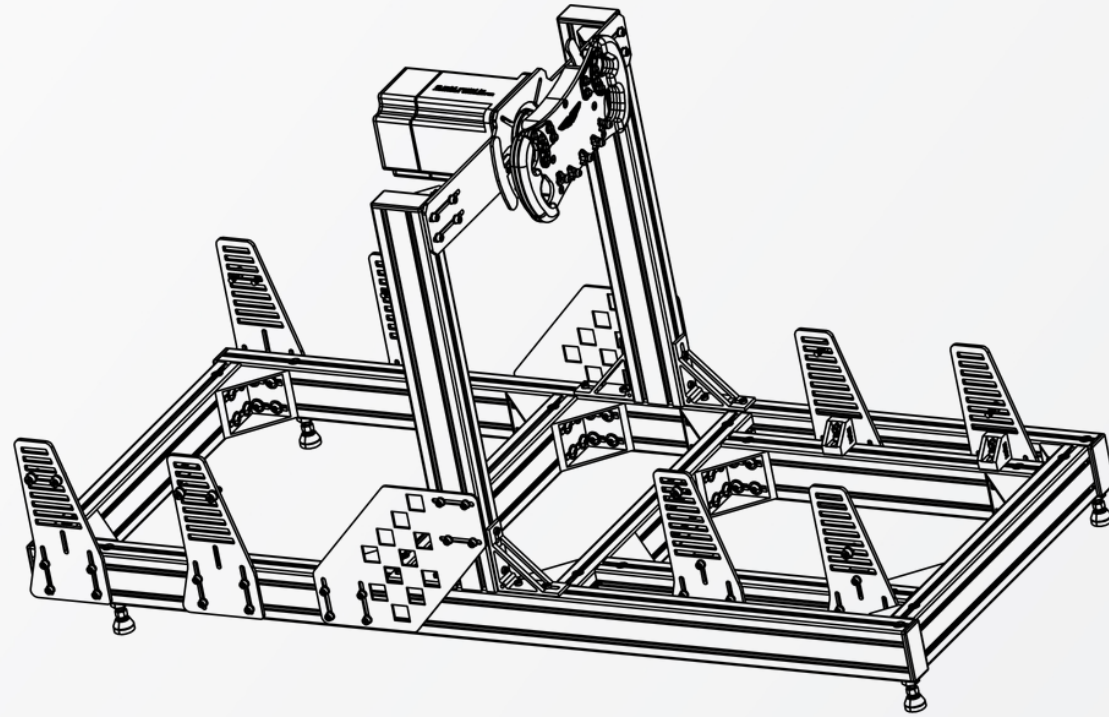


1 Part Name: Fanatec DD Wheel Bottom Plate - 5mm Thickness

Required Screws:
M6x16 Bolt + M6 Washer + M6 Profile Nuts
Quantity: 8

Direct Drive Servo Mount

Related help video: Assembly Guide 06.mp4



① 3D Printed File: Bracket EQ01.STL
Quantity: 4

Required Screws:

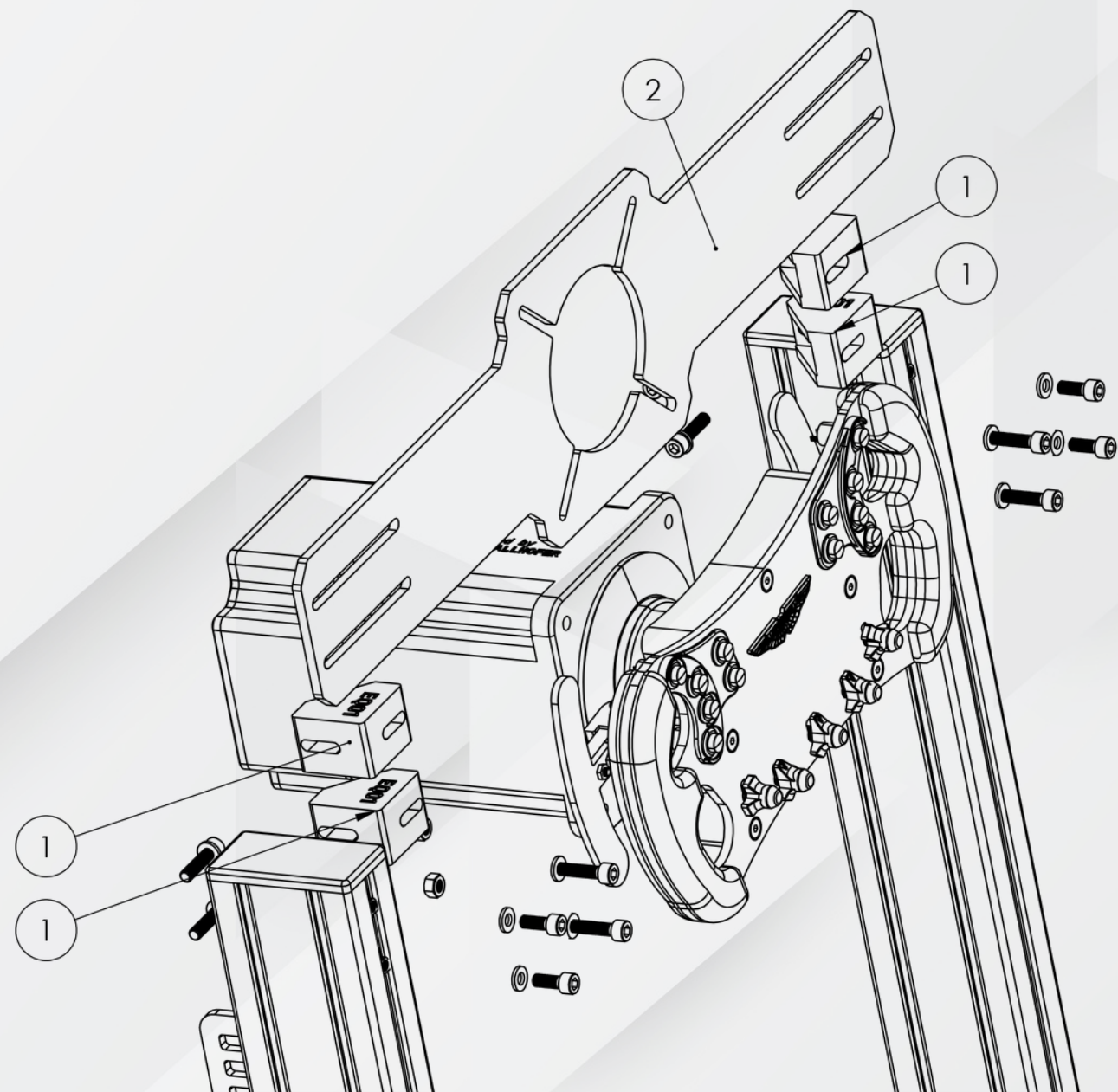
M6x25 Bolt + M6 Washer
Quantity: 8

M6 Nut: 4
M6 Profile Nut: 4

② Part File Name: Direct Drive Servo
Mount Plate - 5mm Thickness

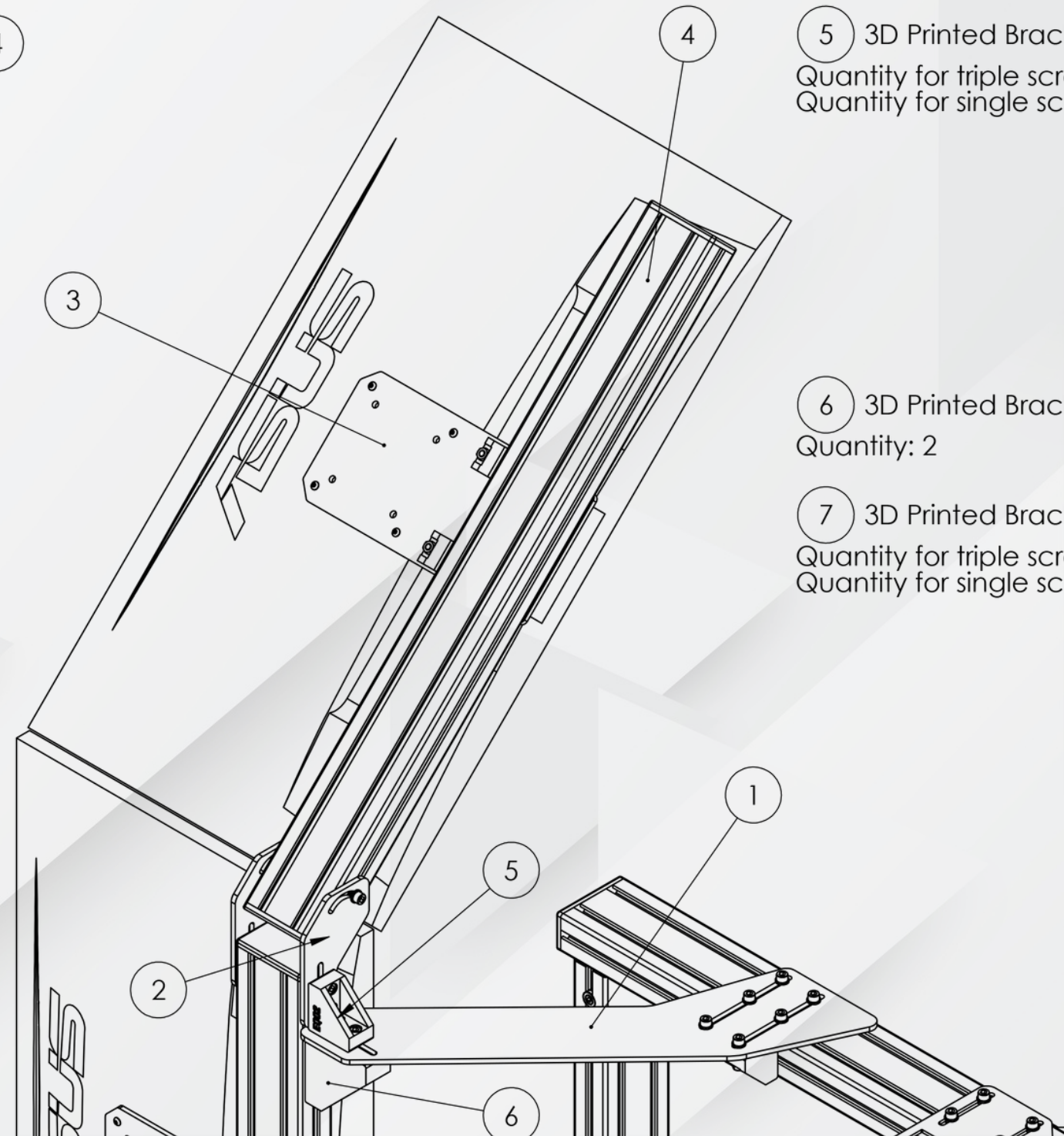
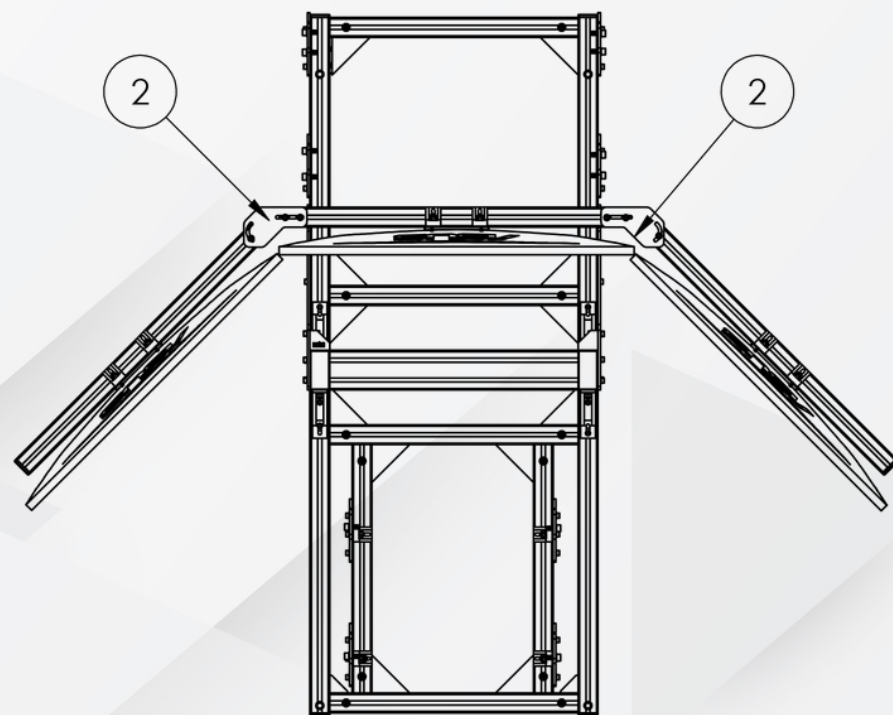
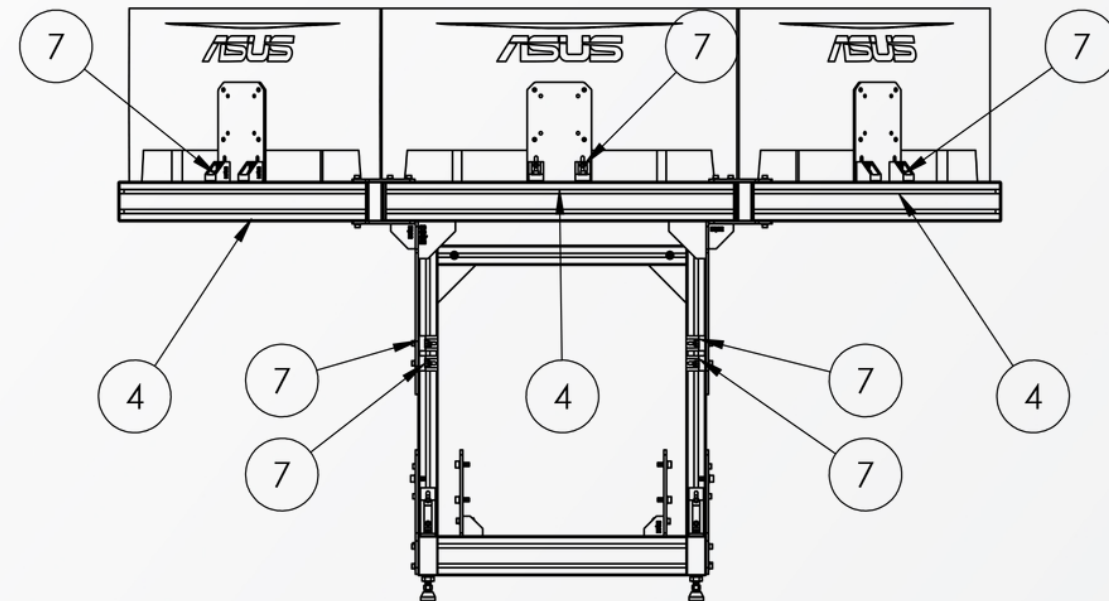
Required Screws:

M6x16 Bolt + M6 Washer + M6 Profile Nut
Quantity: 4



Monitors Mount 1/2

Related help video: Assembly Guide 07.mp4



1 Part File Name: Triple Screen Side Support -
5mm Thickness - Quantity 2

3 Part File Name: VESA Monitor Support -
5mm Thickness
Quantity for triple screen: 3
Quantity for single screen: 1

2 Part File Name: Triple Screen Profile Fixing -
5mm Thickness - Quantity 4

4 4080 Profile
Width: 700mm

Quantity for triple screen: 3
Quantity for single screen: 1

Covering cap quantity: 6

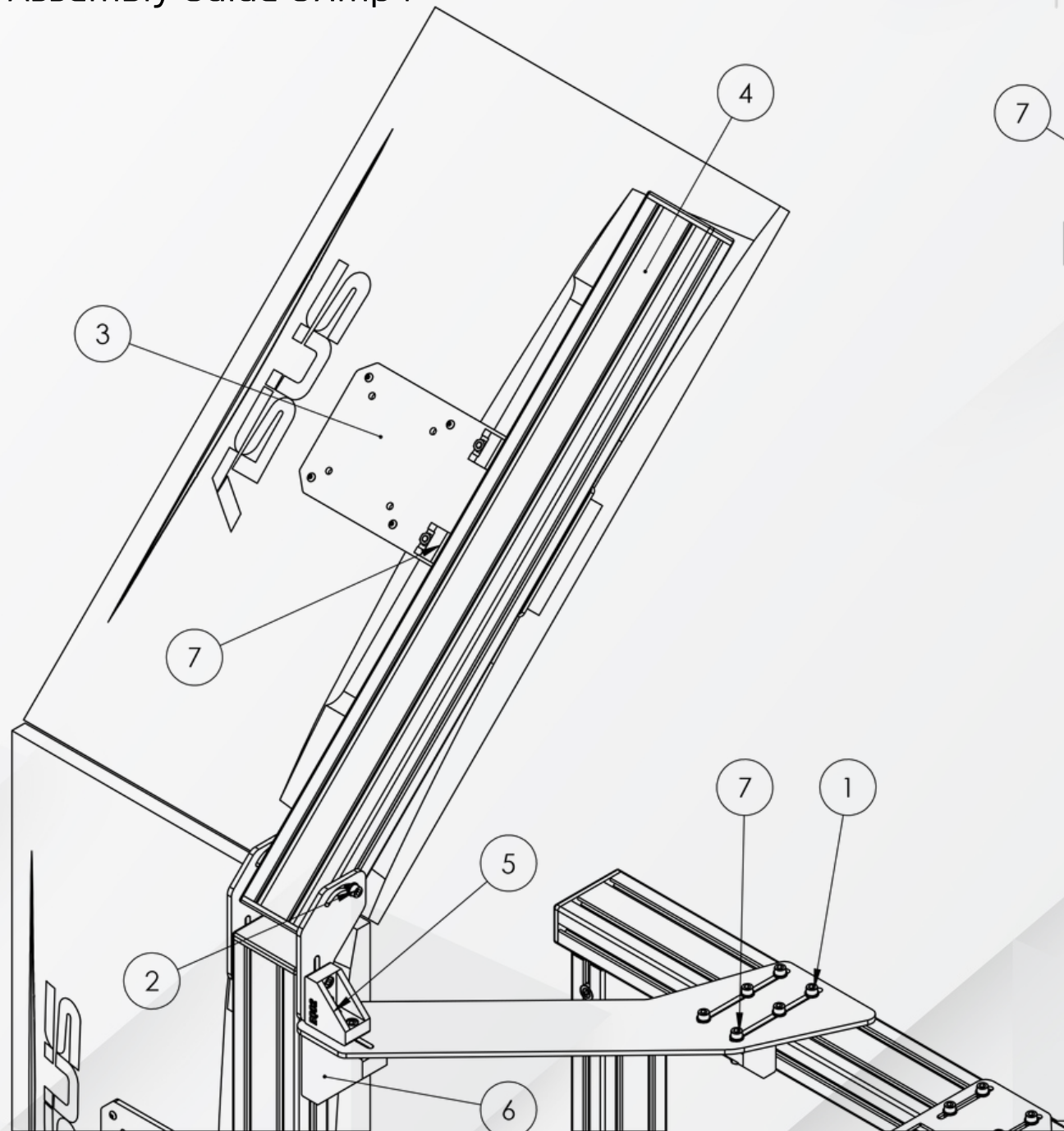
5 3D Printed Bracket EQ02
Quantity for triple screen: 2
Quantity for single screen: 0

6 3D Printed Bracket EQ03
Quantity: 2

7 3D Printed Bracket EQ01
Quantity for triple screen: 10
Quantity for single screen: 6

Monitors Mount 2/2

Related help video: Assembly Guide 07.mp4

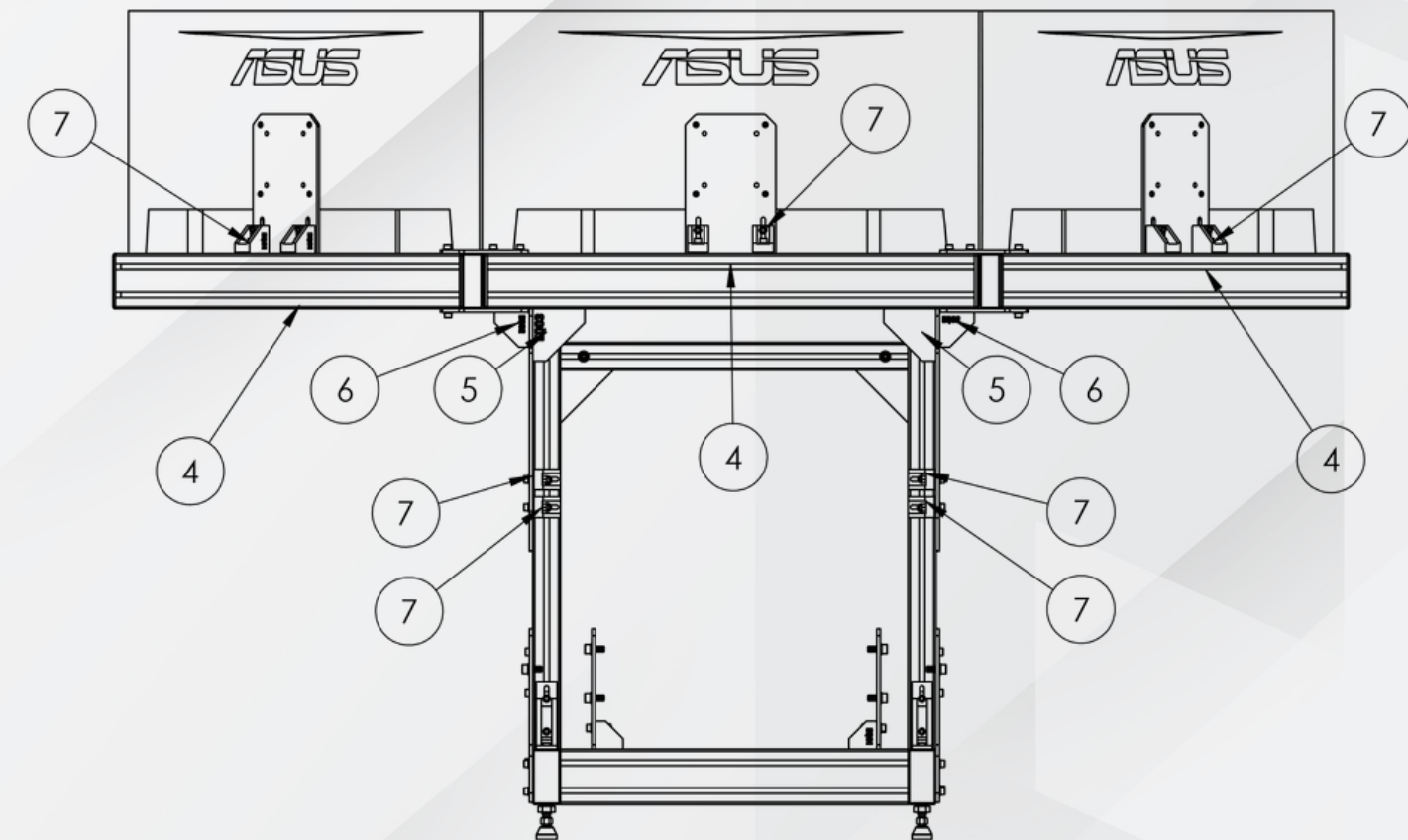


(5) (6) Fixing of the "Bracket EQ02" bracket and the "Bracket EQ03" bracket

Required screw for top fixing on the 4080 profile
M6x25 Bolt + M6 Profile Nut
Quantity: 4

Required screw to connecting the EQ02 bracket to the EQ03 bracket

M6x40 Bolt + M6 Nut
Quantity: 4



(1) M6x16 Bolt + M6 Washer + M6 Profile Nut

Quantity: 8

Note: Fixing the "Triple Screen Side Support" plate on the 4080 profile

(2) M6x16 Bolt + M6 Washer + M6 Profile Nut

Quantity: 6

Note: Fixing the "Triple Screen Profile Fixing" plate on the 4080 profile

(3) M6x16 + M6 Profile Nut

Quantity for single screen: 4
Quantity for triple screen: 12

Note: Fixing the "VESA Monitor Support" plate on the 4080 profile

(7) Fixing the "VESA Monitor Support" to the profile with the EQ01 Bracket

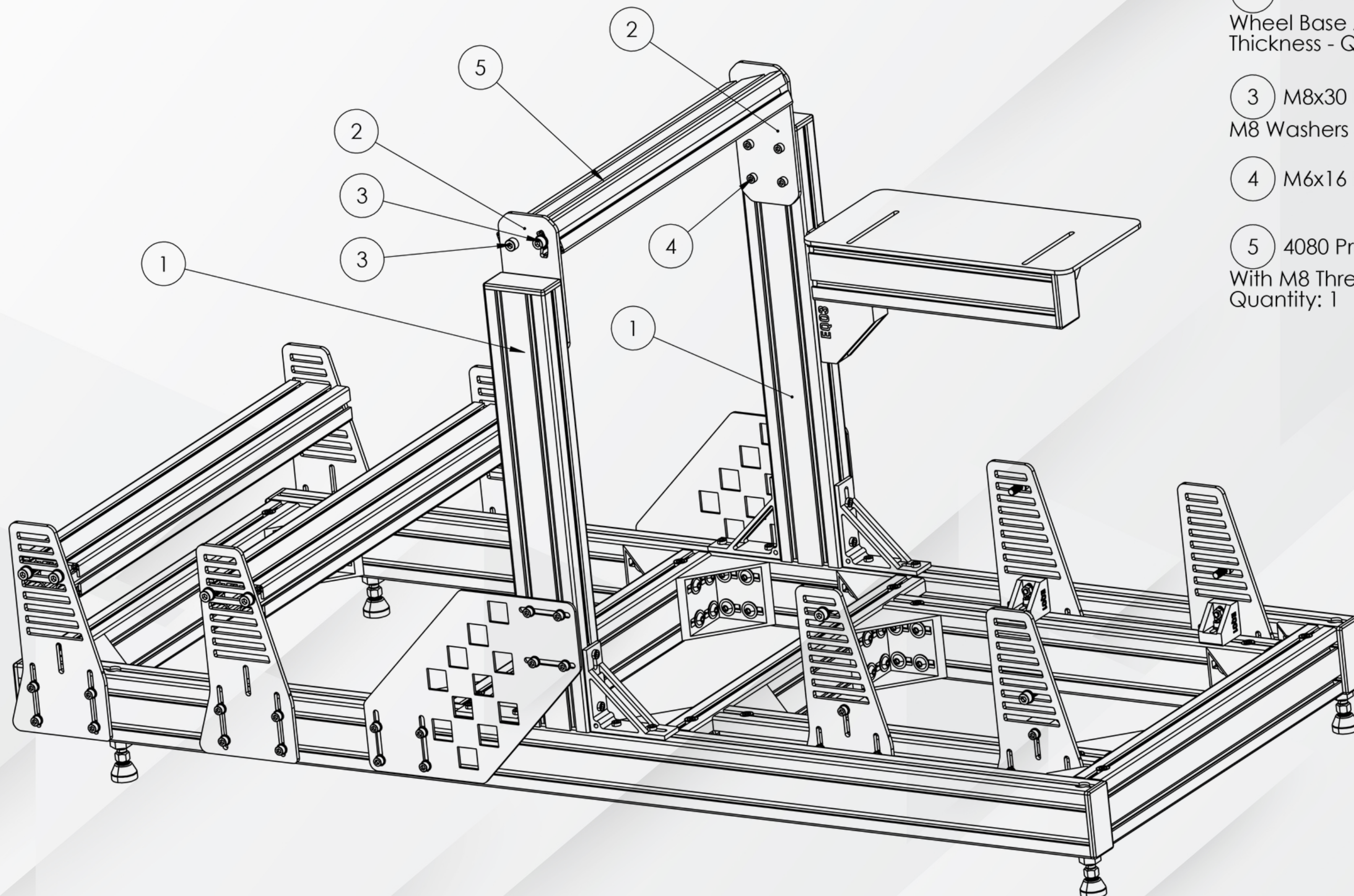
Required screw for single screen (For 3 screens, you need to multiply the quantities by 3) :

M6x25 Bolt - Quantity: 4

M6 Nut: 2 M6 Profile Nut: 2

M6 Washer: 2

Angle adjustment 1/2



1 4080 Profile - Width: 520mm
Quantity: 2

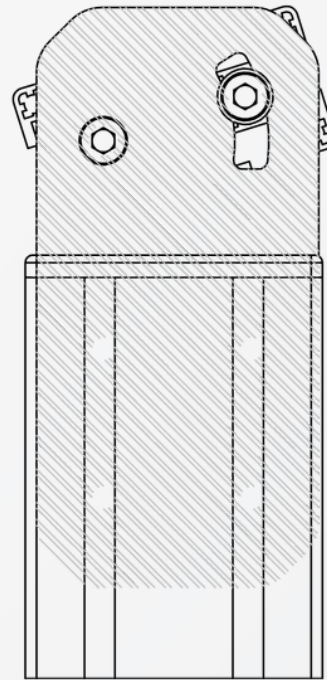
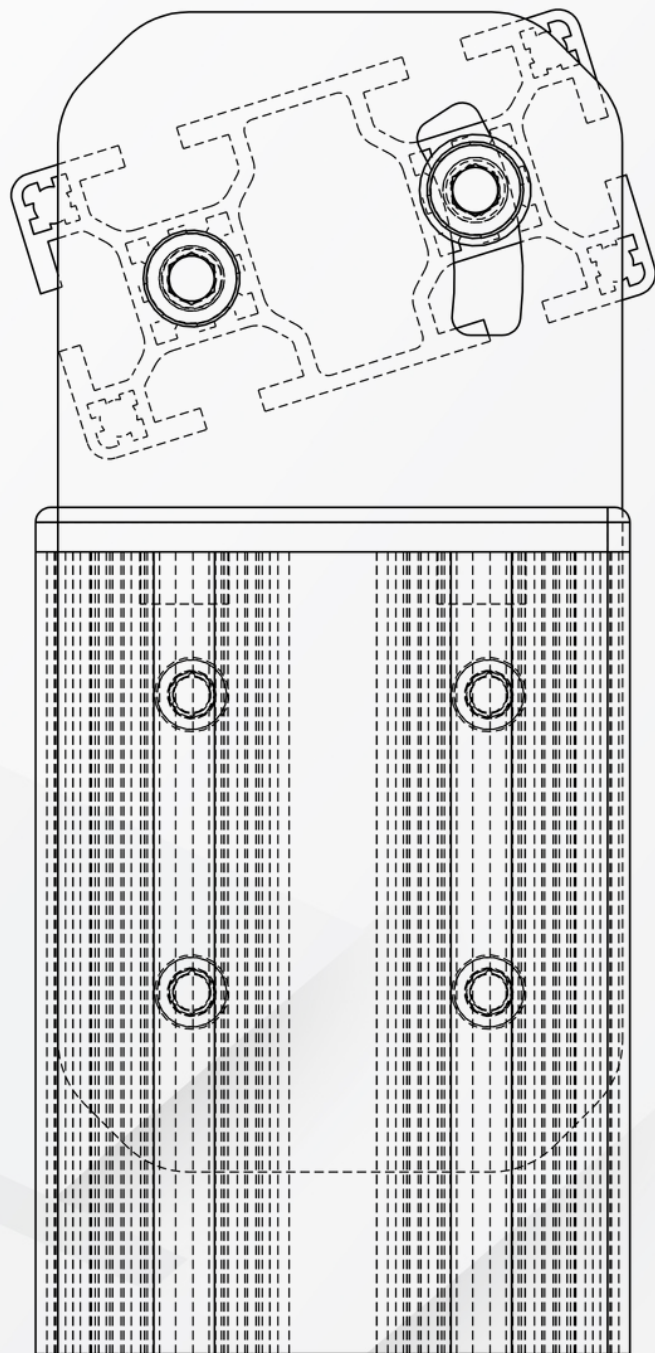
2 Part File Name:
Wheel Base Angle Adjustment - 5mm
Thickness - Quantity 2

3 M8x30 Bolt - Quantity: 4
M8 Washers - Quantity 2

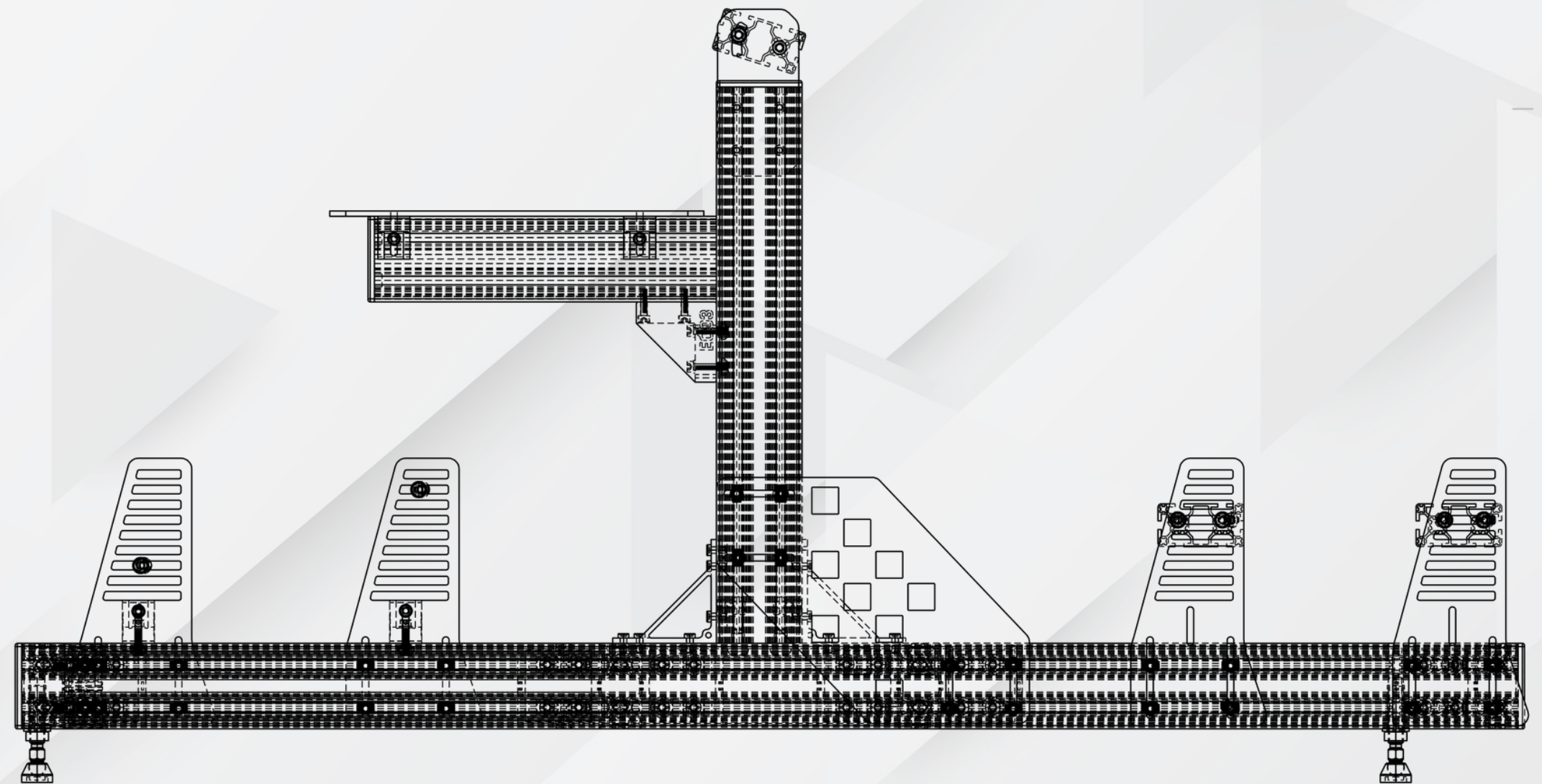
4 M6x16 Bolt - Quantity 8

5 4080 Profile - Width: 490mm
With M8 Threads
Quantity: 1

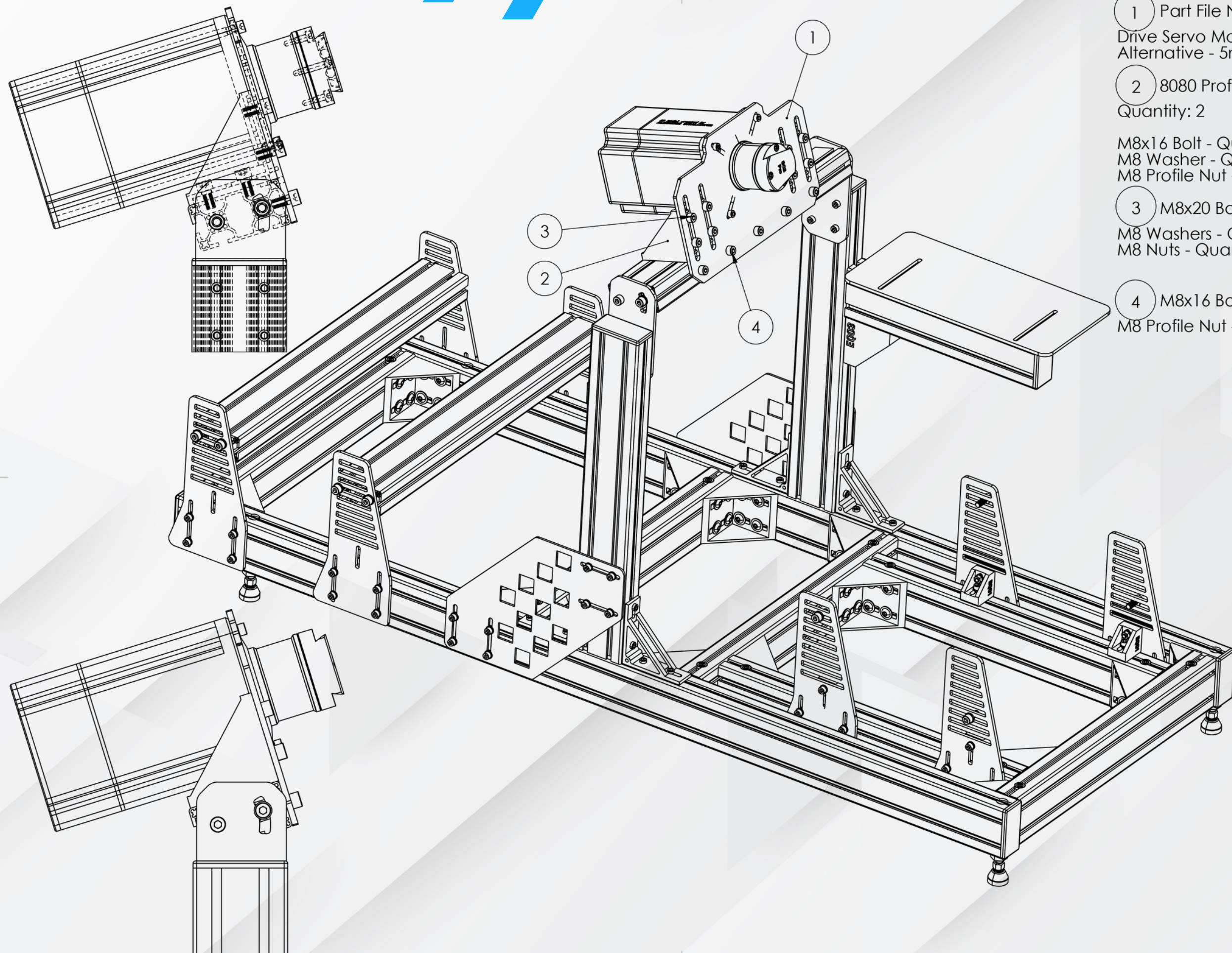
Angle adjustment 2/2



You can easily adjust the height and angle of the profile to set your steering wheel.



Direct Drive Mount Alternative



1 Part File Name: Direct
Drive Servo Mount Plate
Alternative - 5mm Thickness

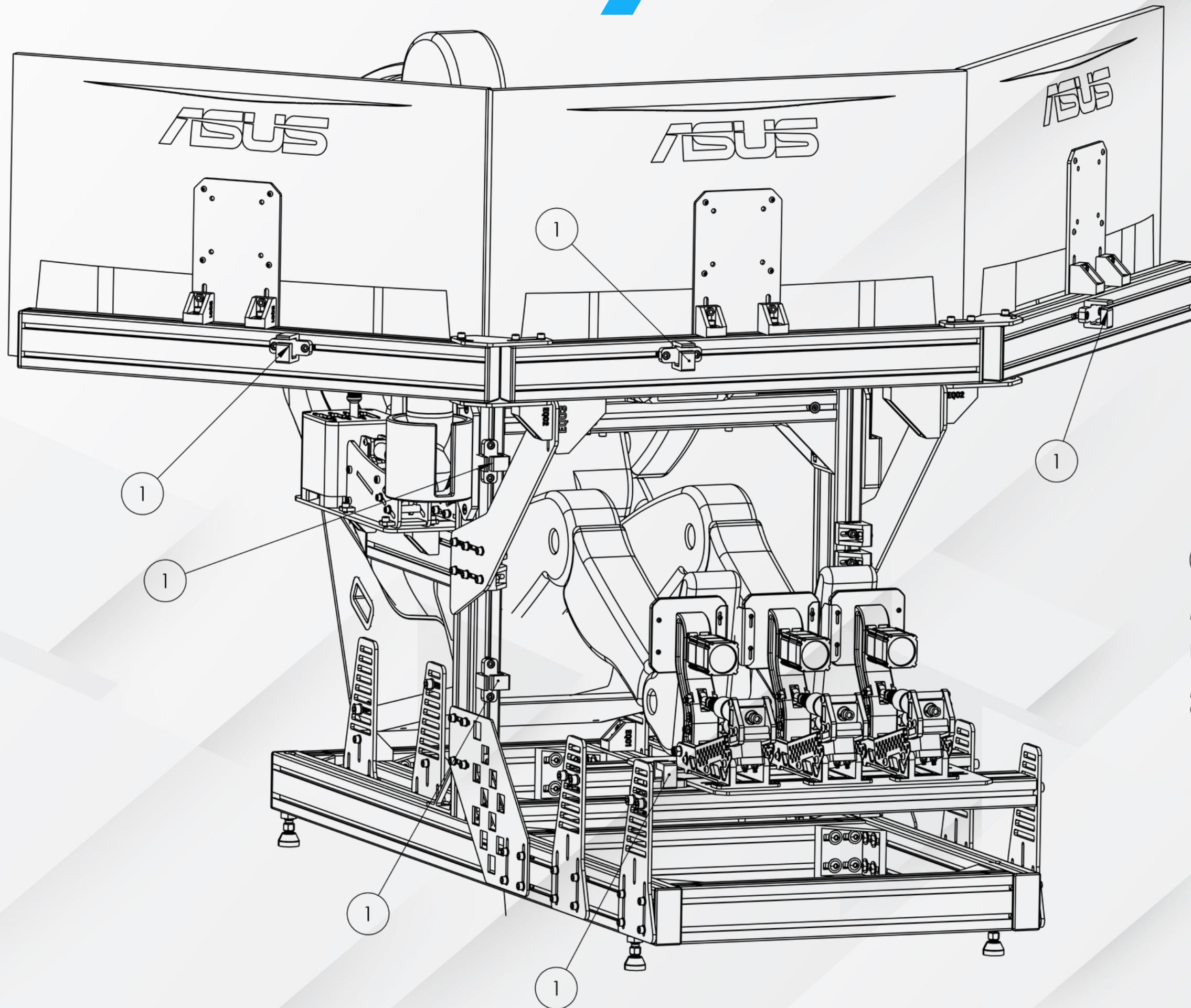
2 8080 Profile Bracket
Quantity: 2

M8x16 Bolt - Quantity 8
M8 Washer - Quantity 8
M8 Profile Nut - Quantity 8

3 M8x20 Bolt - Quantity: 8
M8 Washers - Quantity: 8
M8 Nuts - Quantity: 8

4 M8x16 Bolt - Quantity 5
M8 Profile Nut - Quantity 5

Cable Management



1 3D Printed Wire Management.STL

Minimum quantity required: 5

Required screws for only one part:

M6x12 Bolt + M6 Profile Nut
Quantity: 2

Bill of Material 1/3

For triple-screen Setup

 Related help video: Assembly Guide 07.mp4

SCREWS

Diameter x Width	Quantity
M6x16 Bolt	110
M6 Washer	122
M6 4040 Profile Nut	264
M8x20 Bolt	12
M8 Washer	8
M6x20 Bolt	112
M6 Washer	112
M6x30 Bolt	6
M6x25 Bolt	32
M6 Nut	18
M8 Washer	12
M6x20 Countersunk Bolt	2
M6X12 Bolt	14
M6x16 Countersunk Bolt	2
M6x40 Bolt	4

4080 PROFILES

Part & Width	Quantity
4080 Profile - Width: 500mm	7 Quantity 6 if you use the 490mm Angle Mode (p. 14)
4080 Profile - Width: 600mm Note: The width is 520mm for the version with angle adjustment (p. 14)	2
4080 Profile - Width: 1400mm	2
4080 Profile with M8 Thread Width: 580mm	2
4080 Profile - Width: 700mm	Quantity for triple screen: 3 Quantity for single screen: 1
4080 Profile - Width: 320mm	1
4080 Profile Bracket	14 (3D Printed alternative: Bracket EQ03.STL)
100x100 Profile Bracket	4 (3D Printed alternative: Bracket EQ03.STL)
4040 Profile Bracket	4 (3D Printed alternative: Bracket EQ02.STL)
4080 Protective Cap	13
M8 Adjustable Profile Feet (Optional)	4

Bill of Material 2/3

For triple-screen Setup

 Related help video: Assembly Guide 07.mp4

3D PRINTED PARTS

Part & Width		Quantity
Bracket EQ01.STL		16
Bracket EQ02.STL		2
Bracket EQ03.STL		3
Mug and Bottle Holder.STL		1
Phone Holder.STL		1
Wire Management.STL	Min: 5 Recommended: 10	

2D CUTTING PLATES

File Name		Quantity
VESA Monitor Support - 5mm Thickness		1 per Screen
Triple Screen Side Support - 5mm Thickness		2
Side Seat and Pedals Support - 5mm Thickness		4
Side Steering Wheel Support - 3mm Thickness Note: Optional part		2
Triple Screen Profile Fixing - 5mm Thickness Note: for triple screen		4
Side Hardware Support - 5mm Thickness		1
Keyboard Support - 3mm Thickness		1
Fanatec DD Wheel Bottom Plate - 5mm Thickness		1
Direct Drive Servo Mount Plate - 5mm Thickness		1

4080 PROFILE & SCREWS

Part & Width		Quantity
4080 Profile	Width: 500mm	2
4080 Profile	Width: 490mm with M8 Threads	1
Part & Width		Quantity
M8x30 Bolt		4
M8 Washers		2
M6x16 Bolt		8

2D CUTTING PLATES

File Name		Quantity
Wheel Base Angle Adjustment - 5mm Thickness		2
Direct Drive Servo Mount Plate Alternative - 5mm Thickness Note: for Direct Drive only		1

What tools do I need to build the sim rig?

The RigForce EVO 01 is designed to be easy to assemble using basic tools. The main tool required is a set of **Allen keys (hex keys)** for tightening the aluminum profile hardware and mounting screws.

No specialized workshop equipment is required for the standard assembly.

How difficult is the sim rig to assemble?

The build is rated **Easy**. The design uses aluminum profiles, standard M6/M8 hardware and pre-designed mounting plates and brackets.

The assembly mainly consists of positioning the profiles, installing the brackets and tightening the hardware according to the assembly instructions.

How long does it take to build the complete sim rig?

The complete assembly takes approximately **4 hours**, depending on your experience and how much time is spent adjusting the driving position and accessories.

Taking your time during the initial alignment and adjustment is recommended.

Is the sim rig adjustable for different user heights?

Yes. The RigForce EVO 01 is designed around an adjustable aluminum profile structure, allowing the main driving position to be adapted to different users.

The recommended user height is approximately **1.55 m to 1.90 m (5'2"-6'3")**.

If you are **taller than 1.90 m (6'3")**, the 1400 mm profiles can be replaced with 1600 mm profiles to provide additional space.

What configurations are available for this cockpit?

There are essentially three setups: **F1** position, **GT3** position, and **classic** car position.

Regarding the pedals set adjustment, for the two highest slots, you will need to use 3060 profiles or 4040 profile instead 4080.

You can also adjust the tilt angle of the left and right screens.

How can manufacturing costs be saved?

You could use laser-cut raw steel parts and coat them with anti-rust paint, as well as 3D-print as many brackets as possible using the provided STL files.

However, laser-cut stainless steel remains the best solution for a premium result.

What monitor sizes are supported?

The RigForce EVO 01 is designed to support:

- Triple screens: approximately **21" to 32" per monitor**
- Single screen: up to **49" UltraWide**

The monitor mounting system uses standard VESA 75x75mm or 100x100mm.

Do I need a 3D printer to build the sim rig?

No, a 3D printer is not strictly required for the main structure.

The project includes several 3D-printable brackets and accessories, while some of these parts have alternative hardware solutions using standard aluminum profile brackets.

The package also includes the necessary files for the 3D-printed components, allowing you to manufacture them yourself if you have access to a 3D printer.

How do you cut the plates by hand?

You need to print the A3-format sheets from the "**Hand Cutting A3 PDF Files**" folder; they are all at **1:1 scale**, except for the PDFs titled:

- Triple Screen Side Support - 5mm Thickness - Quantity 2
- Direct Drive Servo Mount Plate - 5mm Thickness

How do you 3D print brackets for maximum strength?

You need to use a strong material like PETG or ABS. Print at a 45° angle with a minimum infill of 80%.

Do 2D laser-cut plates require bending?

No. To save you on manufacturing costs, none of the plates require bending or machining.

What files and documents are included with the CAD plans?

The project includes a complete set of files and documentation to help you build the RigForce EVO 01.

Depending on the component, the package includes:

- **3D Printed STL Files**
- **CNC STEP Files**
- **Laser Cutting DXF Files**
- **Hand Cutting A3 PDF Files**
- **Bill of Materials**
- **Assembly documentation**

The Bill of Materials provides the required aluminum profiles, brackets, screws, washers, nuts and other hardware needed for the build.

The project is designed to give you the information needed to manufacture and assemble the cockpit yourself.

Thank you for downloading the RigForce EVO 01 project!

SHOW US YOUR BUILD

Tag @DIYSimStudio & send us mail
with photos at info@diysimstudio.com
We'd love to see your DIY RigForce EVO
01.

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Thank you again for being a vital part of the
DIY Sim Studio journey! See you on the track,

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LET'S BUILD SOMETHING GREAT

GIVE
SUPPORT