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Caution before assembly and use

WARNING! Assembled platform will have exposed motors moving parts.

Never operate it with small children around.

Protection cover sold separately.

During initial assembly don't tighten the bolts completely, do it after everything is assembled.

First you need to assemble the full frame and tighten the screws and bolts after.

Please check all the motor power and sensor plugs.

Reconnect them if they happen to have been disconnected during shipping.

Never change the wiring.

Mixing the colors to the connectors can damage the motors and platform controllers.

Don't put ANY controllers on the platform before it is completely tested and proven to be working as desired.

After assembly, **attach the seat only; nothing extra**. After you ensure that the simulator is moving appropriately, you can start adding controllers one by one, doing movement tests with a person seated in a chair. This will replicate the weight distribution.

Our platform is very lightweight and simple due to its perfect weight balance. This allows us to use affordable motors and gearboxes. If you plan to put something besides standard wheel, pedals, yoke, gear shifter, throttle and HOTAS you need to plan and install it properly.

Each additional element (even if it is lightweight) connected to the moving platform should be well positioned and counter balanced. Even a light-weight screen/monitor placed on our simulator can cause problems. It is always better to consult us first, before installing any extra equipment on the platform.

Each platform control box is shipped preset to the **voltage of the destination country**. If you're not sure about the proper voltage settings, turn it upside-down and check ALL 2 or 3 red switches inside the box consult us.

If you not sure what bolts to use print the following 1:1 template on corresponding paper size without extra borders or spacing:

For US Letter Paper: https://dofreality.com/hardware_template_Letter.pdf

For A4 Paper: https://dofreality.com/hardware_templateA4.pdf

Never ever leave the platform powered unattended and powered on when not used. Motors are constantly doing micro adjustments.

Never heated over 70C they can lose the power.

Video instructions for assembling various modifications of DOF REALITY H2 or P2

Follow the corresponding video guide from this page: https://dofreality.com/support/

1. SFU-gearbox current modification

Video H2k or P2k with SFU and kardans joints:
Assembly 2DOF REALITY SFU with kardan joints, brakes and CyberCover

2. Worm gearbox modification

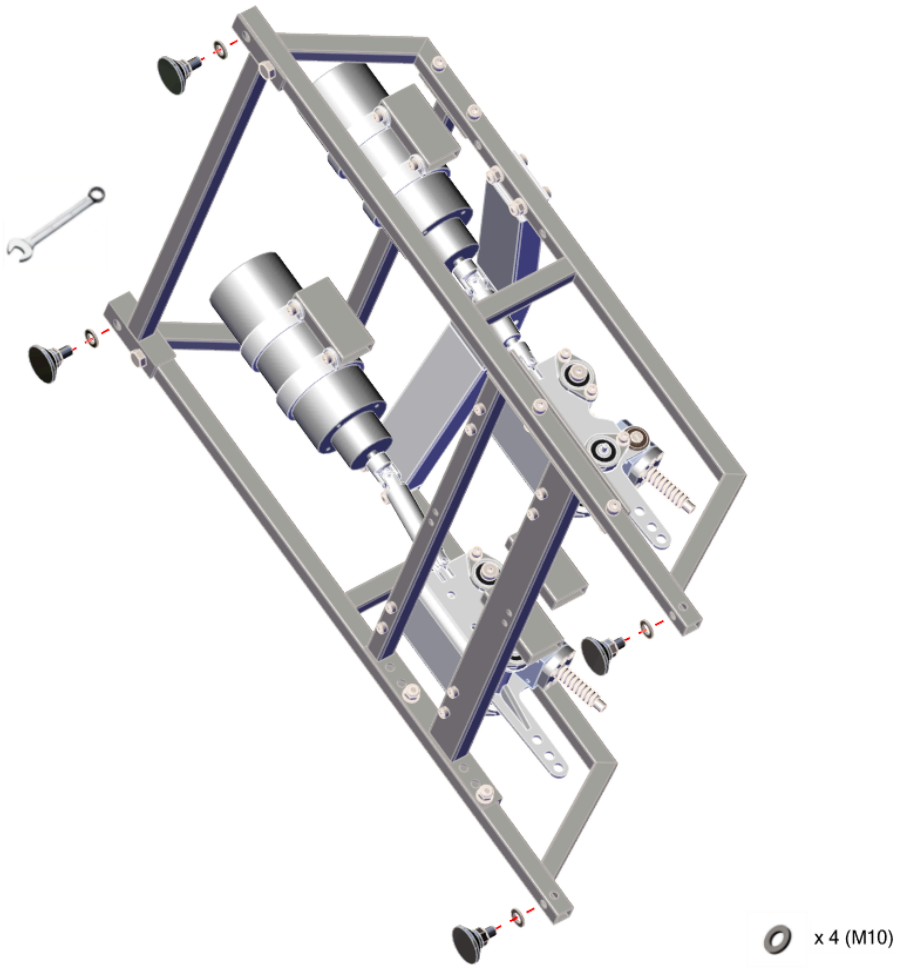
Video H2 or P2 without SFU: Assembly DOF REALITY 2DOF new frame

3. Old SFU-gearbox modification

Video H2s or P2s with SFU: Assembly DOF REALITY 2DOF with SFU and ENCODER Motors

2. H2k or P2k with SFU and kardan-joints assembly steps

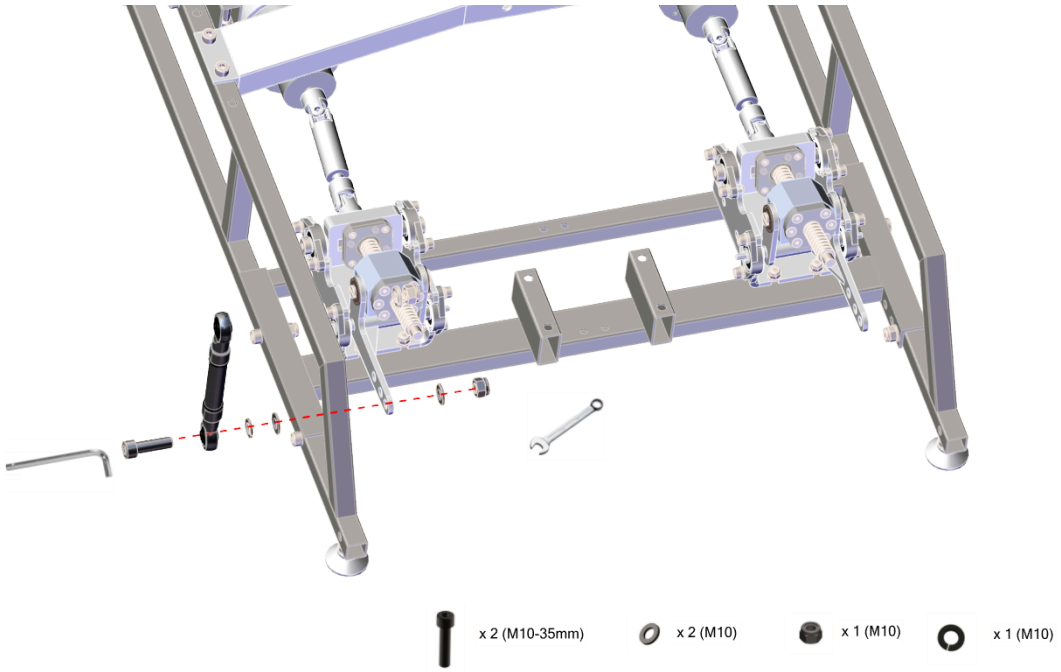
2.1. Standing Legs.

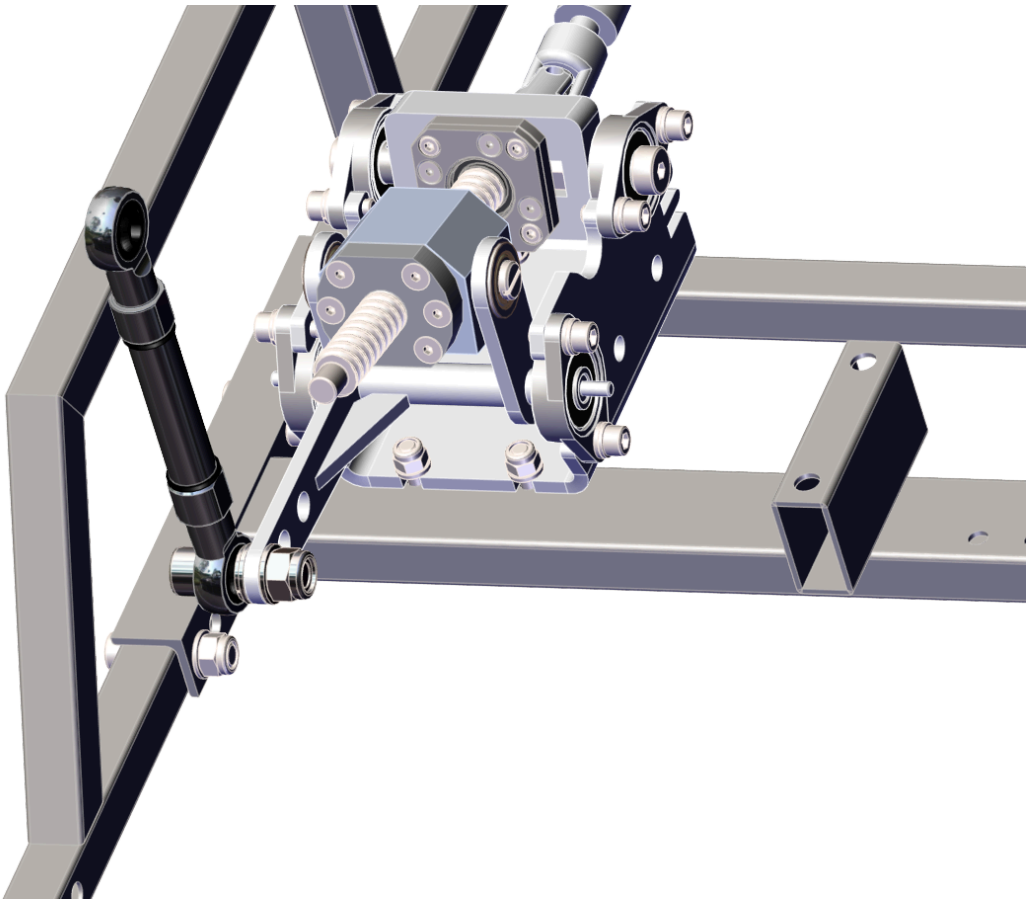


2.2. Mount the right front link to the crank from the outside.

The order of fasteners and parts is from right to left (from outside to inside):

Bolt M10x35 -> Right rod -> Spring washer -> Washer -> Right gear crank -> Washer -> Nut M10

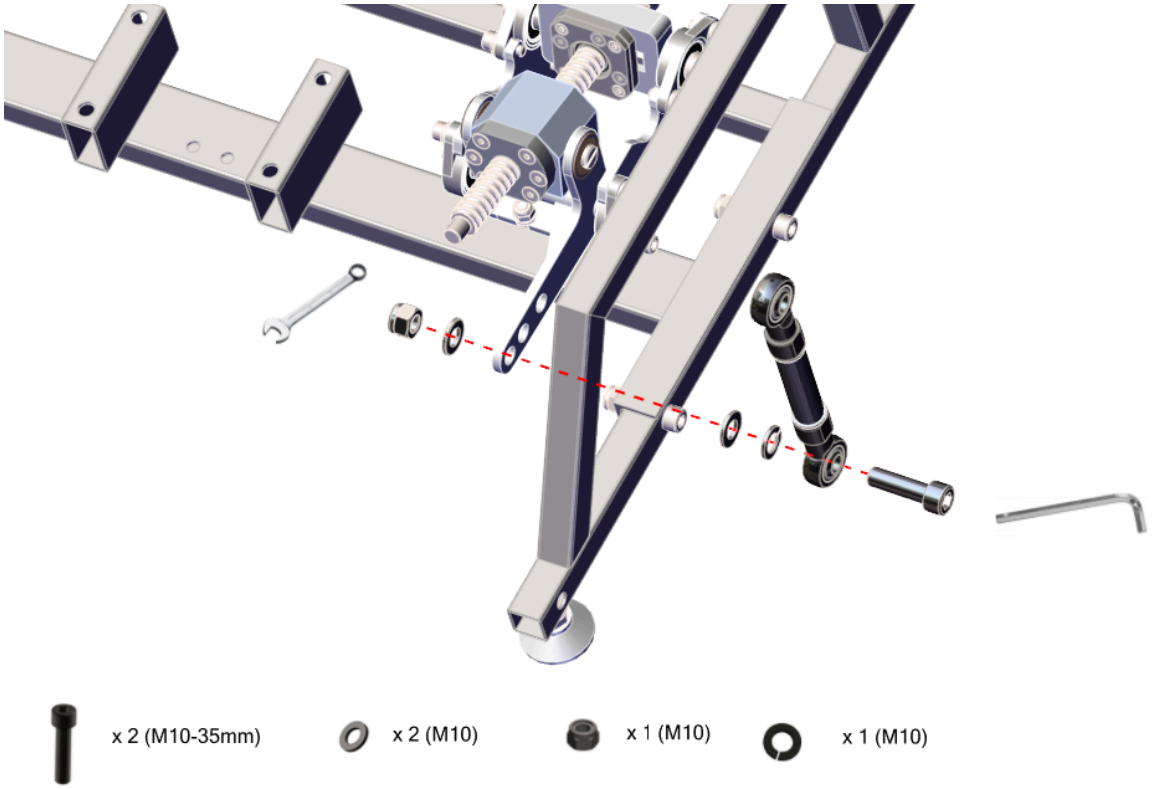


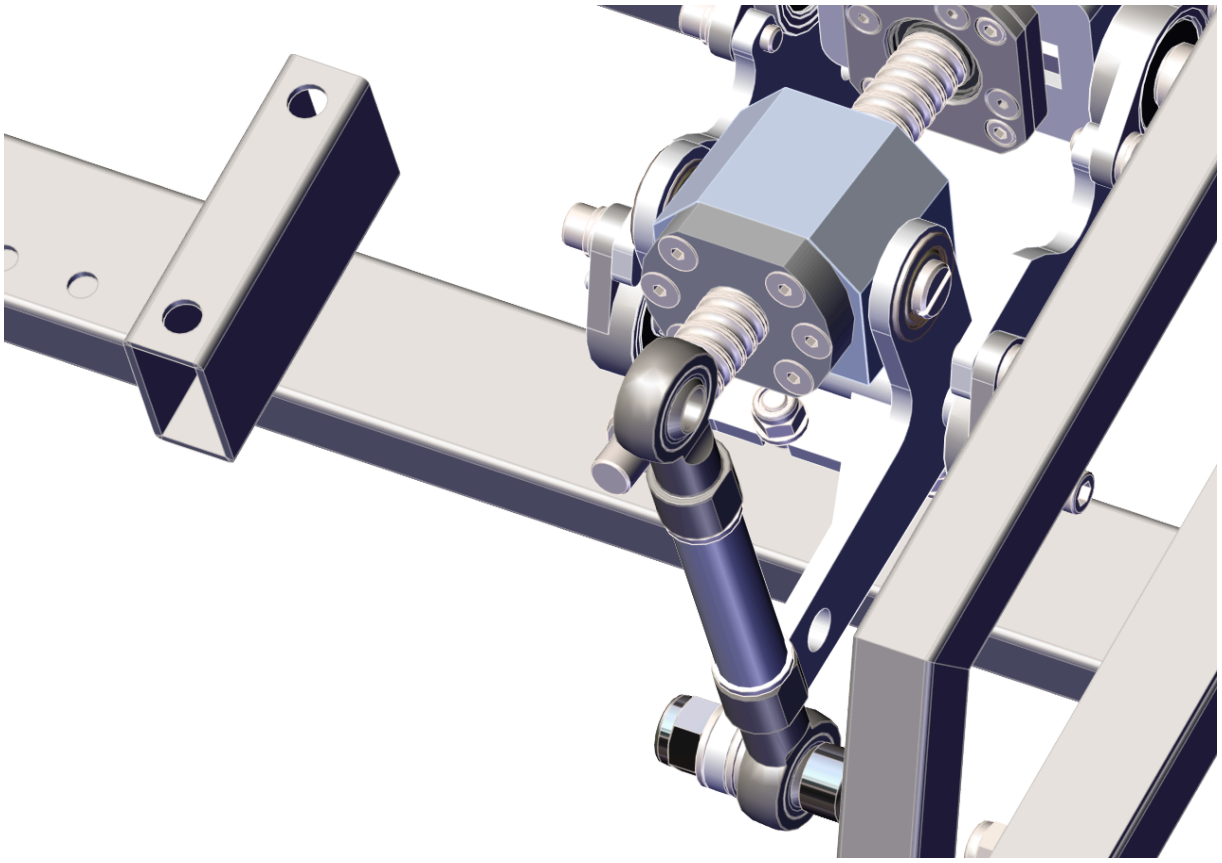


2.3. Mount the left front link to the crank from the outside.

The order of fasteners and parts is from right to left (from outside to inside):

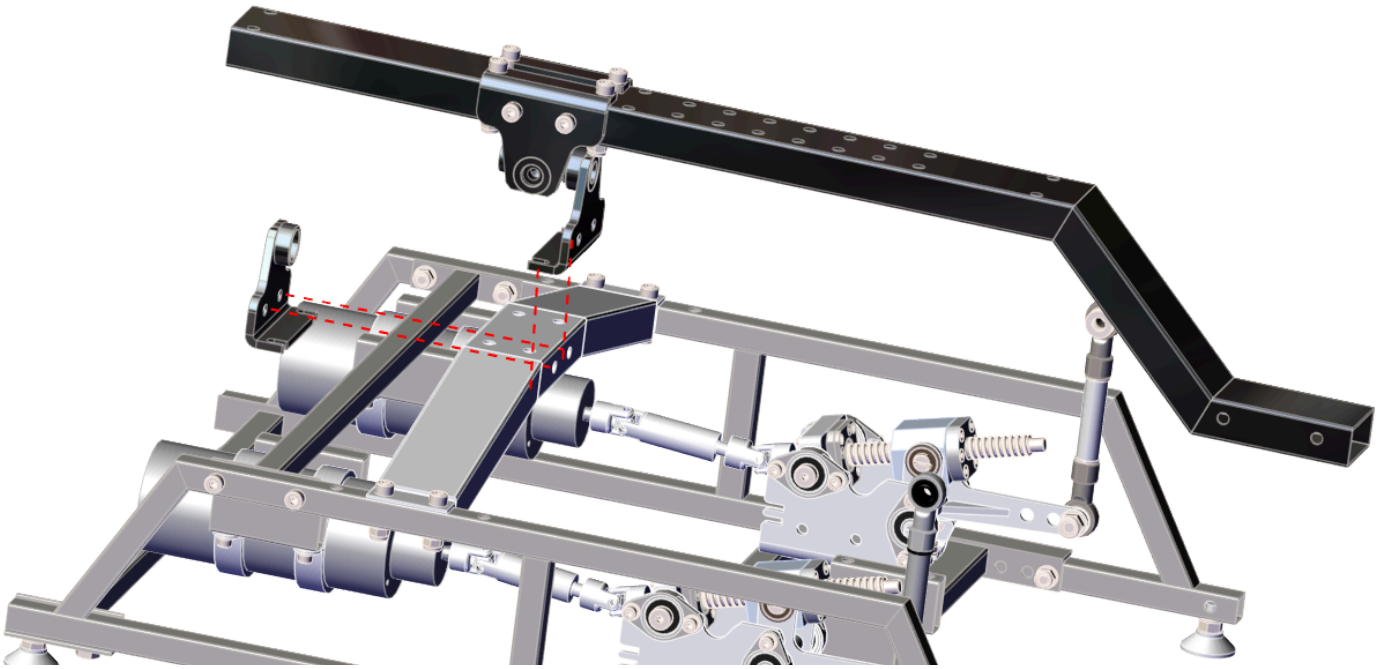
Bolt M10x35 -> Right rod -> Spring washer -> Washer -> Left gear crank - Washer - Nut M10

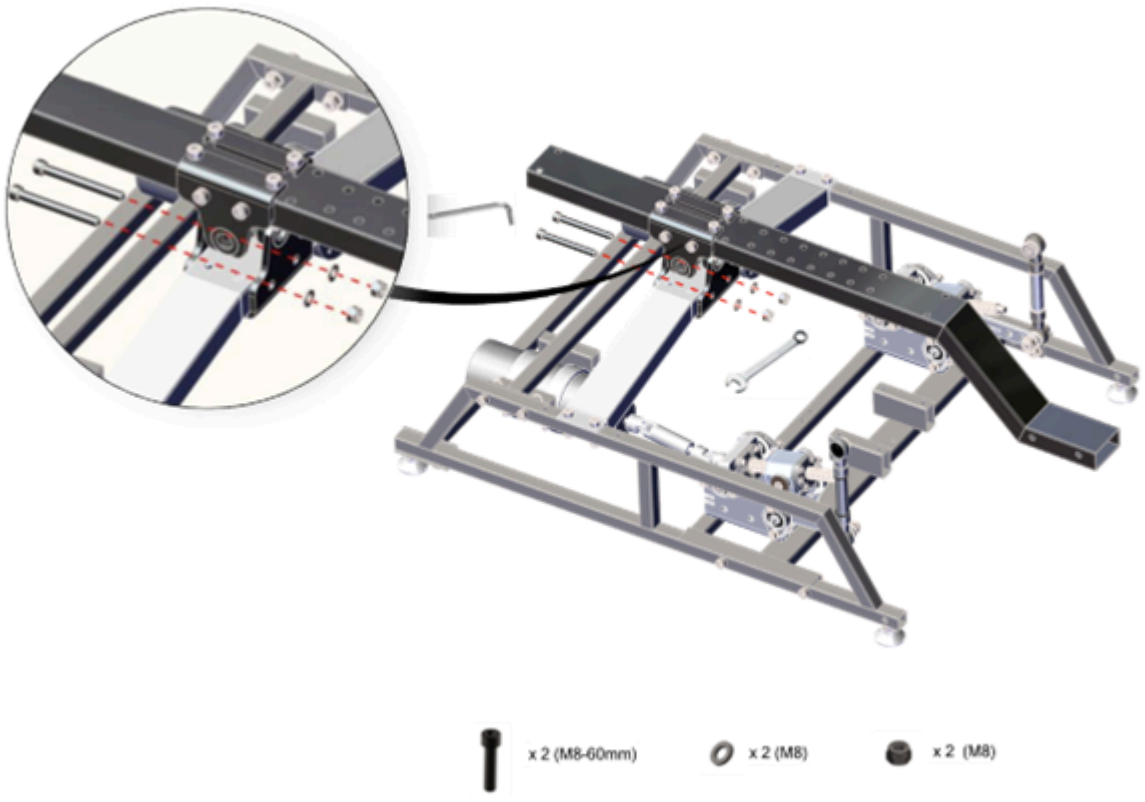




2.4. Mount the main beam with the U-joint using M8x85 bolts.

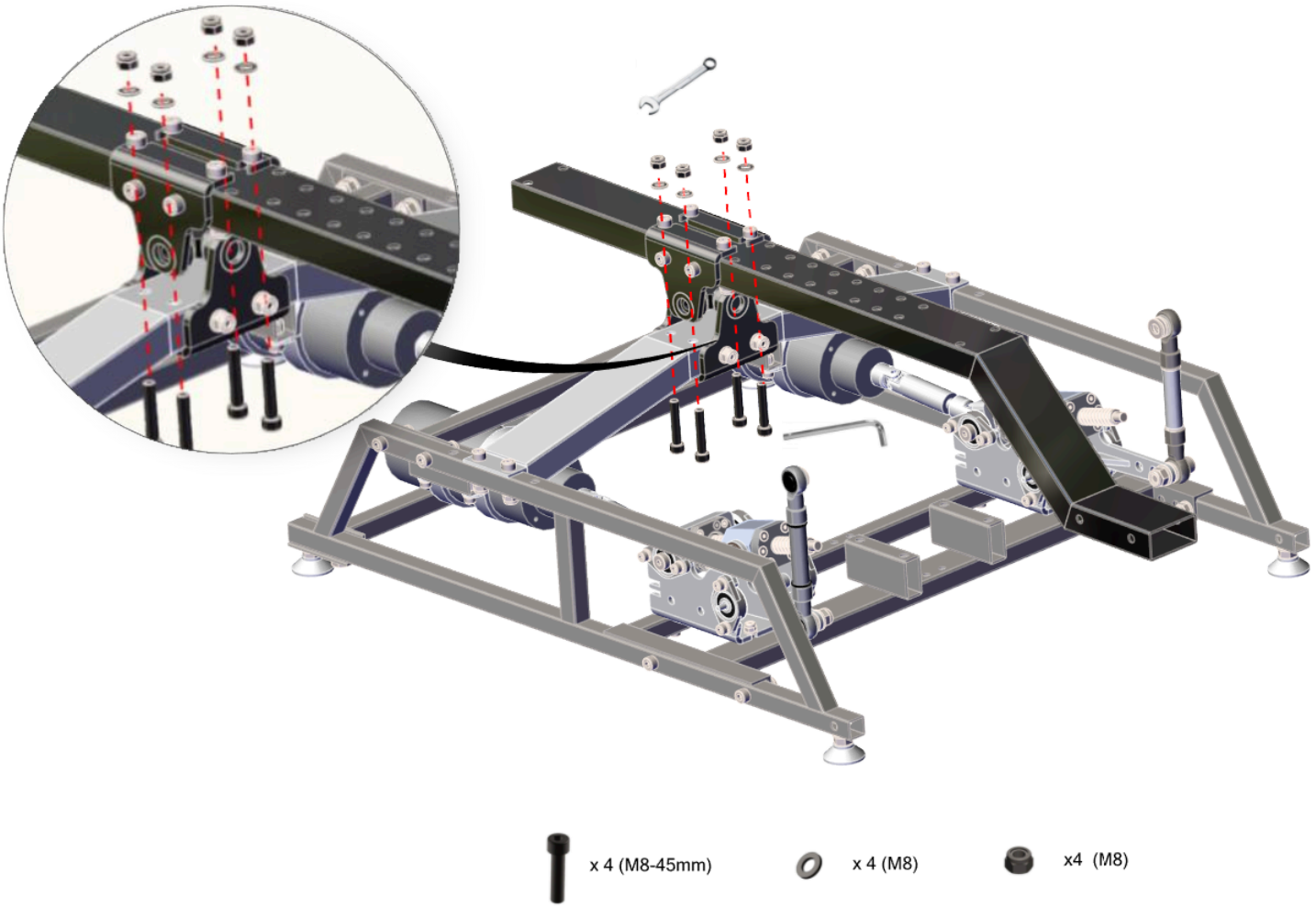
Be careful with the small pins inside the universal-joint.

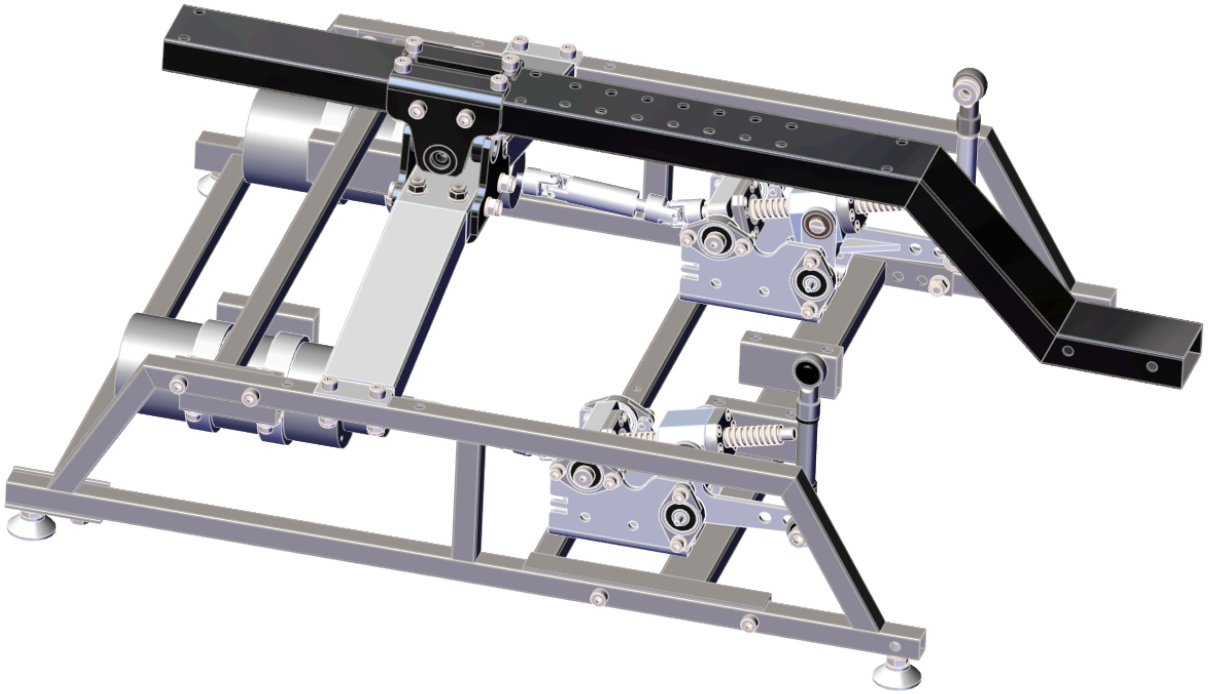




2.5. Mount the main beam with the U-joint.

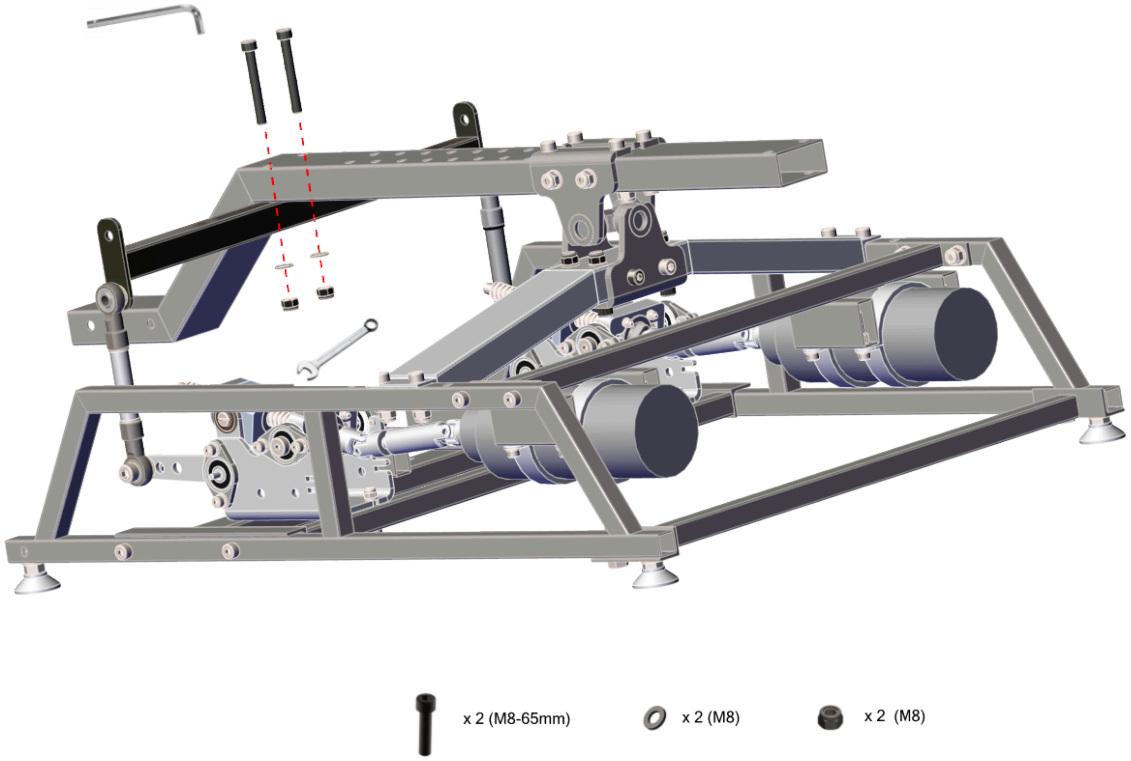
Insert M8x45 bolts into the holes from below.





2.6. Mount the Rod Holder under the main beam using M8x65 bolts.

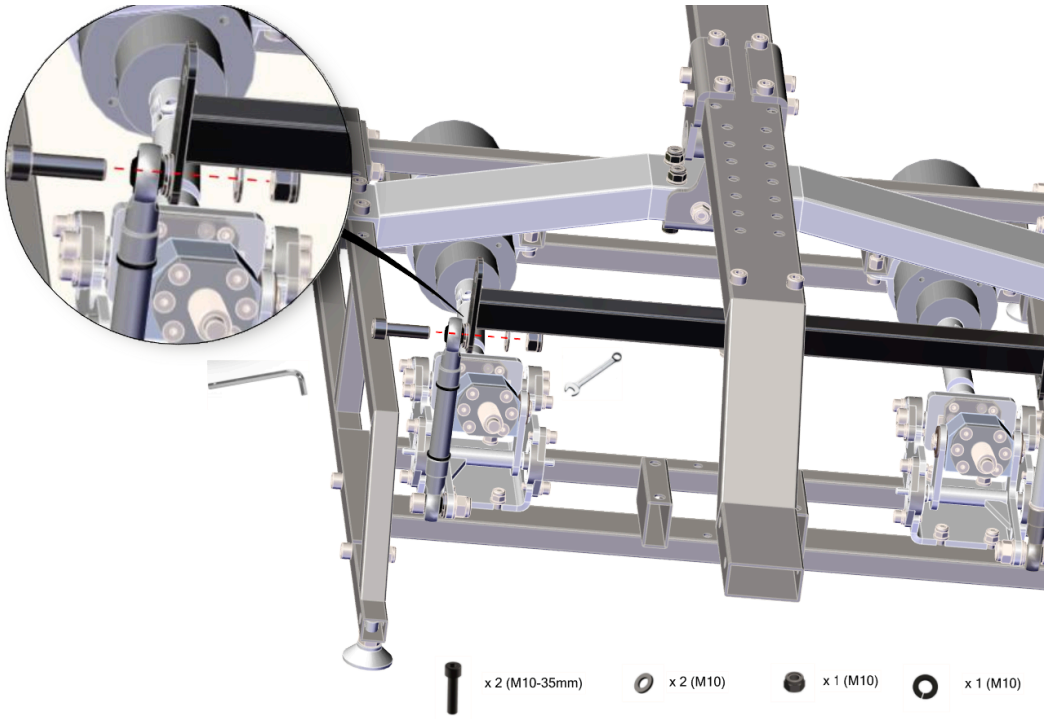
- Rod Holder located under the main beam.
- The hole on the ear is 10 mm at the bottom, 8 mm at the top.



2.7. Mount the right front rod to the Rod Holder.

The order of fasteners and parts is from left to right (from outside to inside):

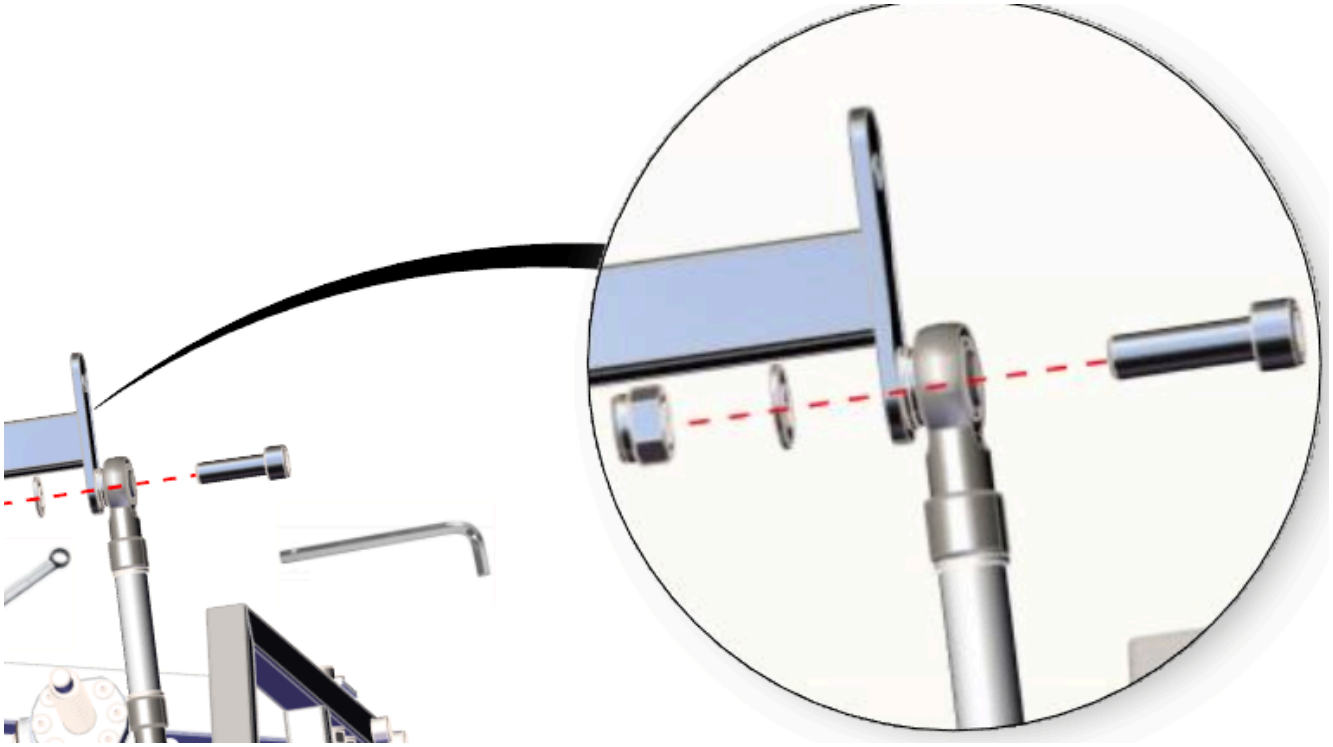
Bolt M10x35 -> Right rod -> Spring washer -> Washer -> Rod Holder -> Washer -> Nut M10

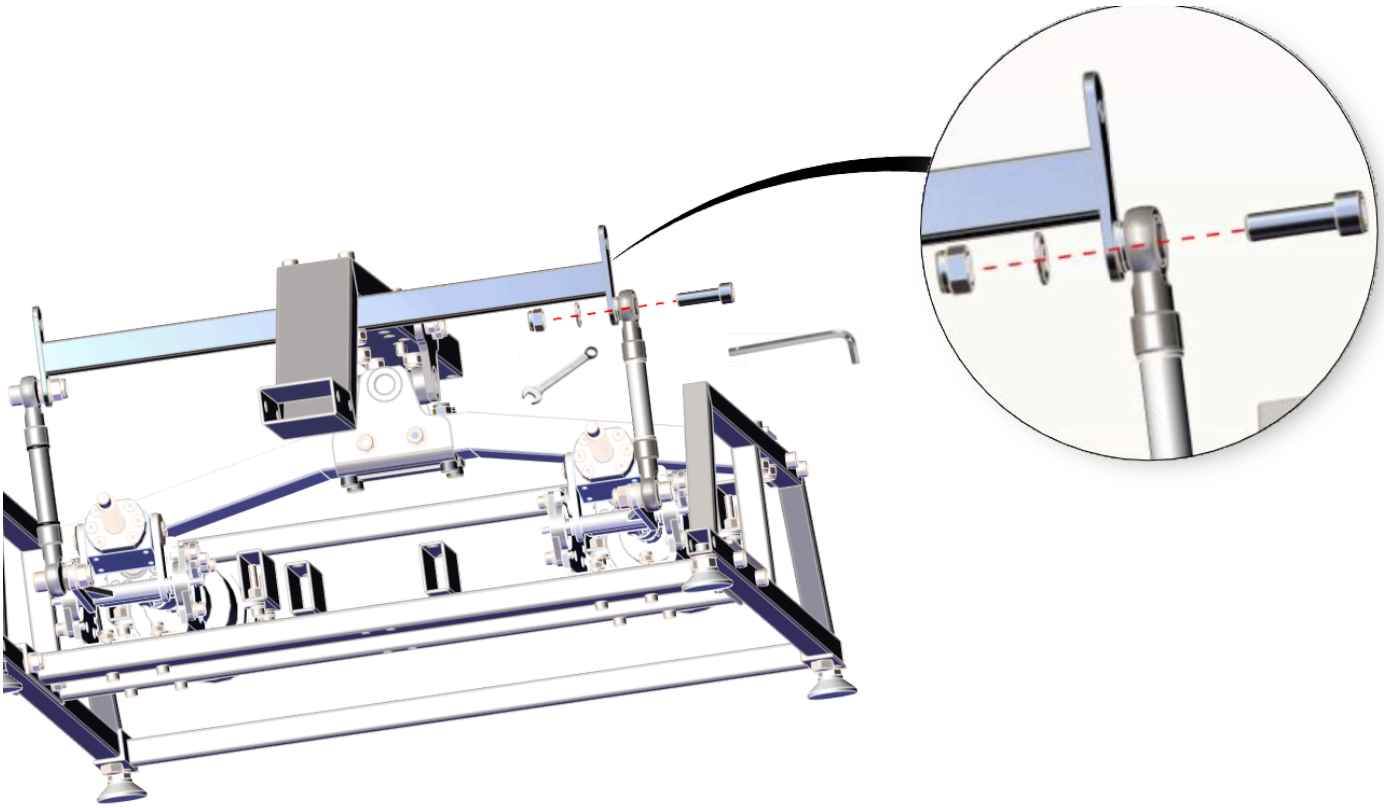


2.8. Mount the left front rod to the Rod Holder.

The order of fasteners and parts is from right to left (from outside to inside):

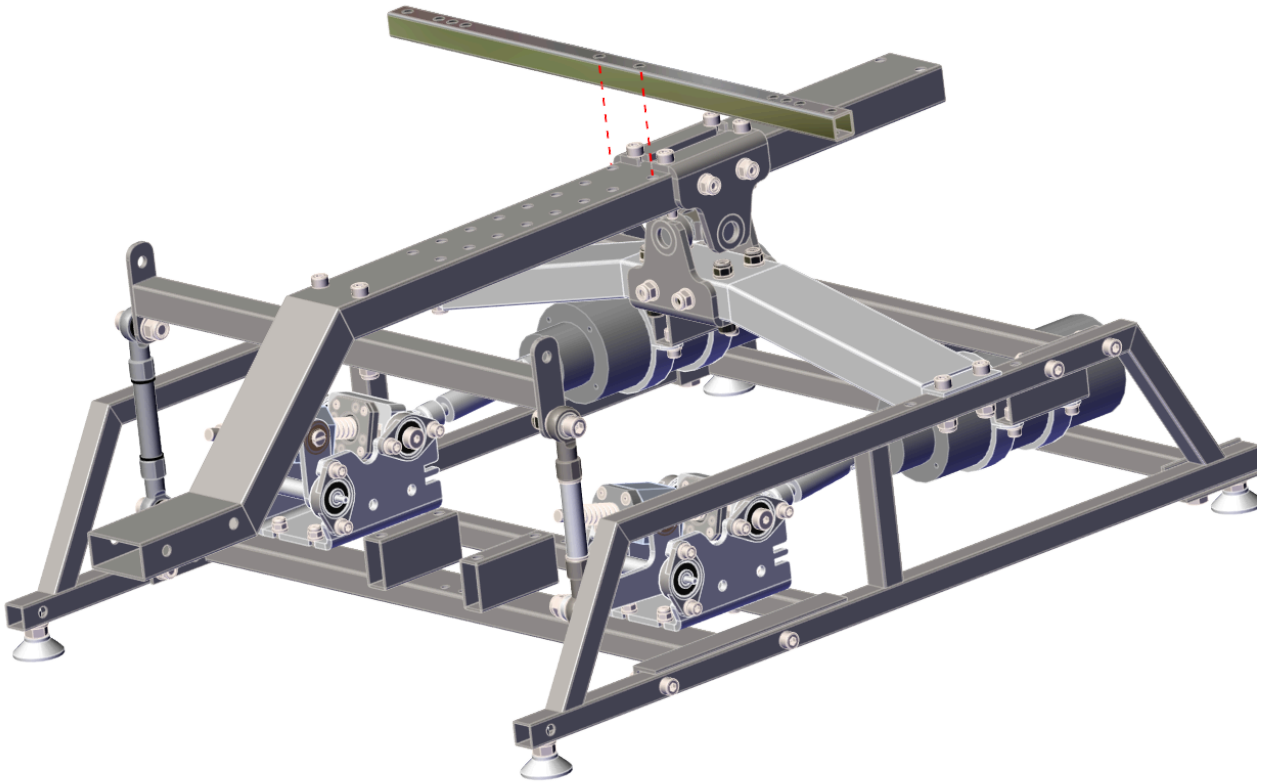
Bolt M10x35 -> Left rod -> Spring washer -> Washer -> Rod Holder -> Washer -> Nut M10

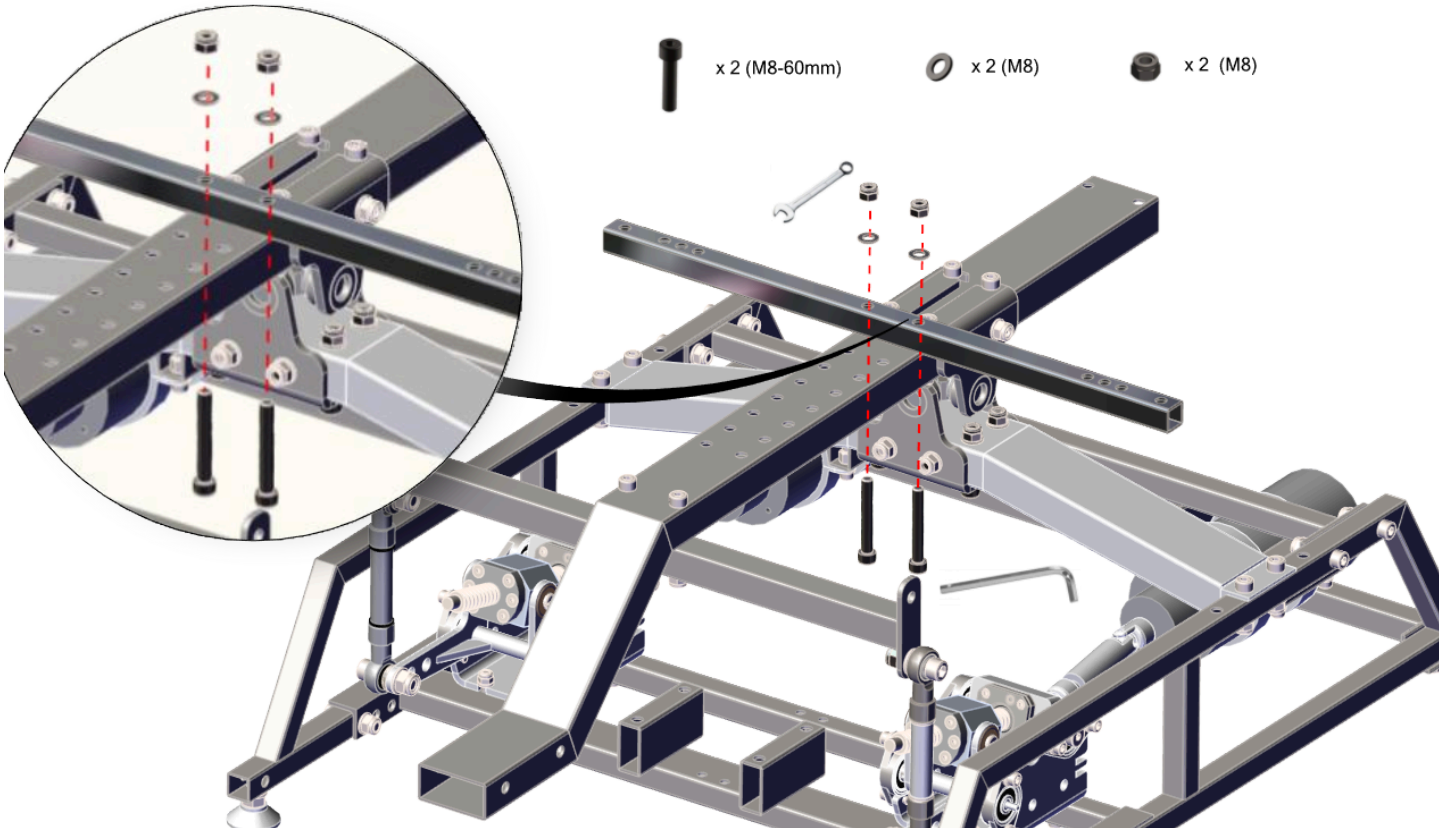




2.9. Mount in the front seat bar (long).

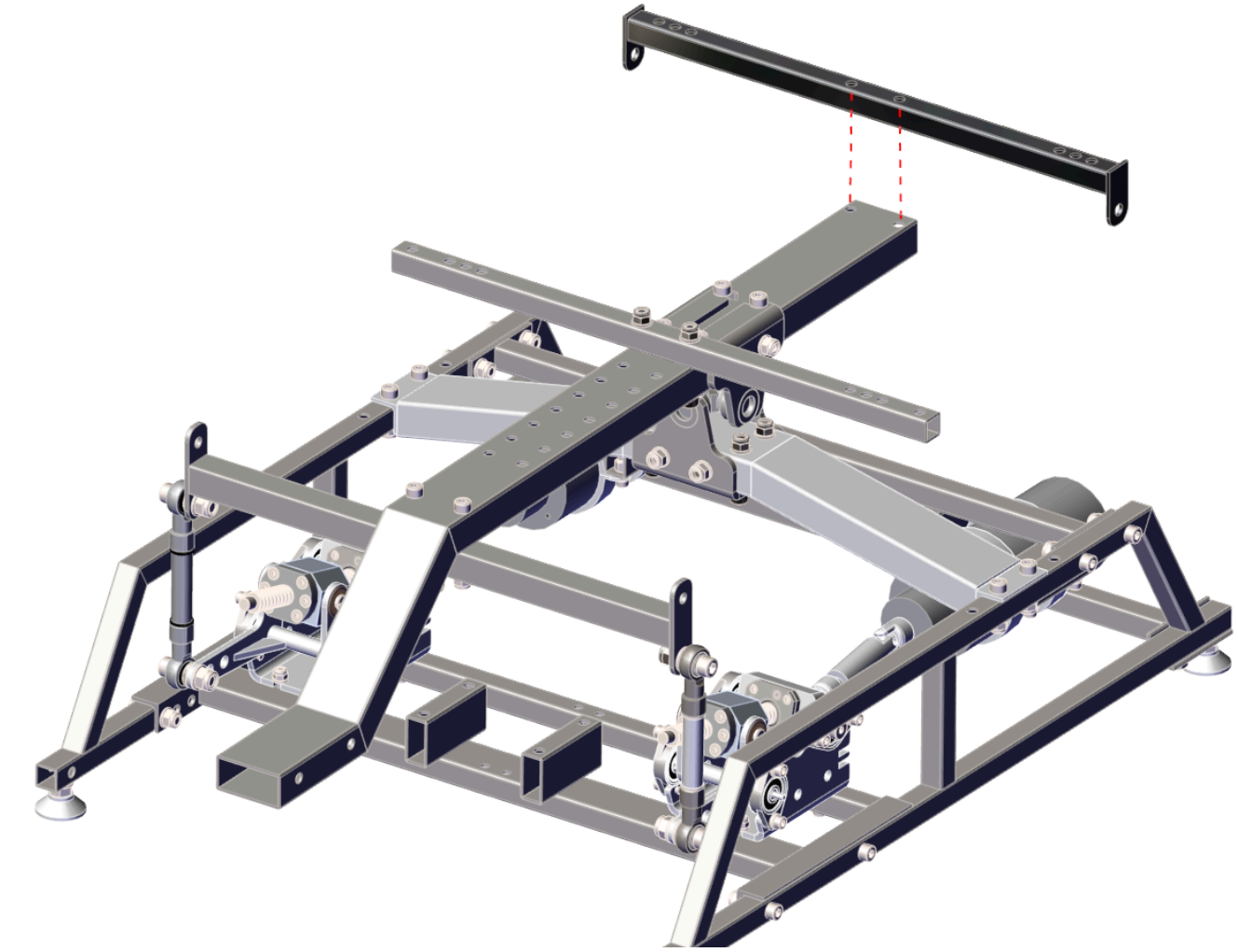
Insert M8x60 bolts from below.

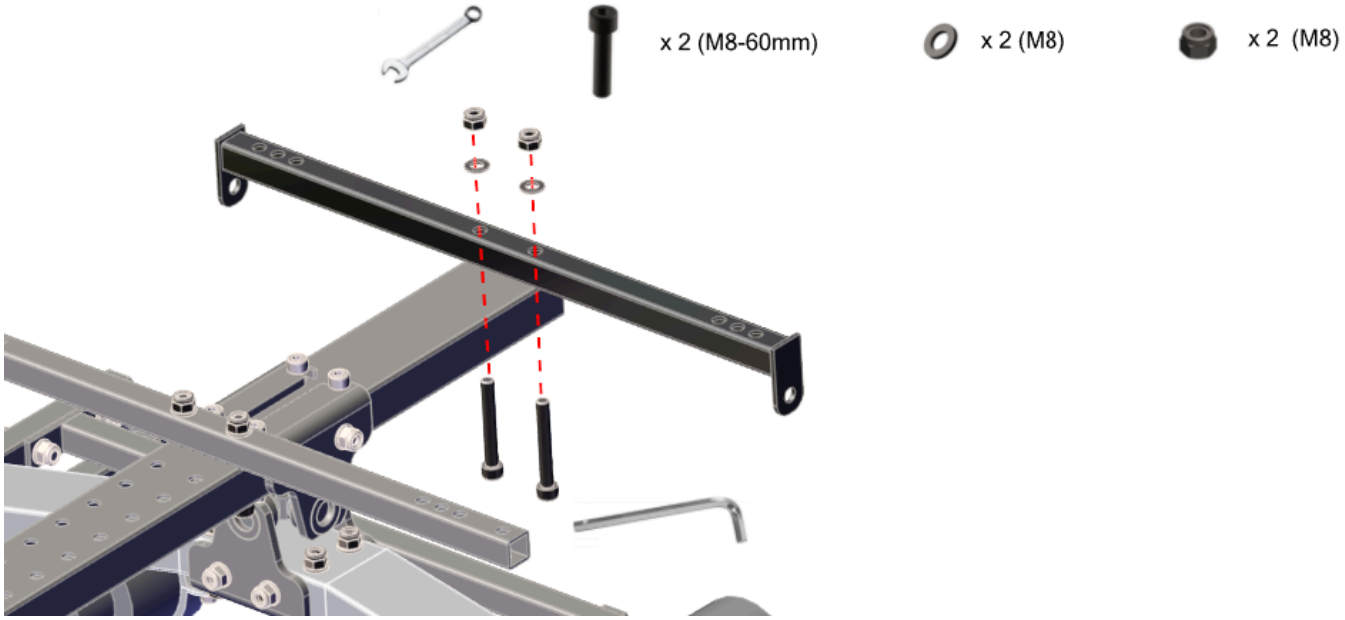




2.10. Mount in the rear seat bar (in last version same as front seat bar)

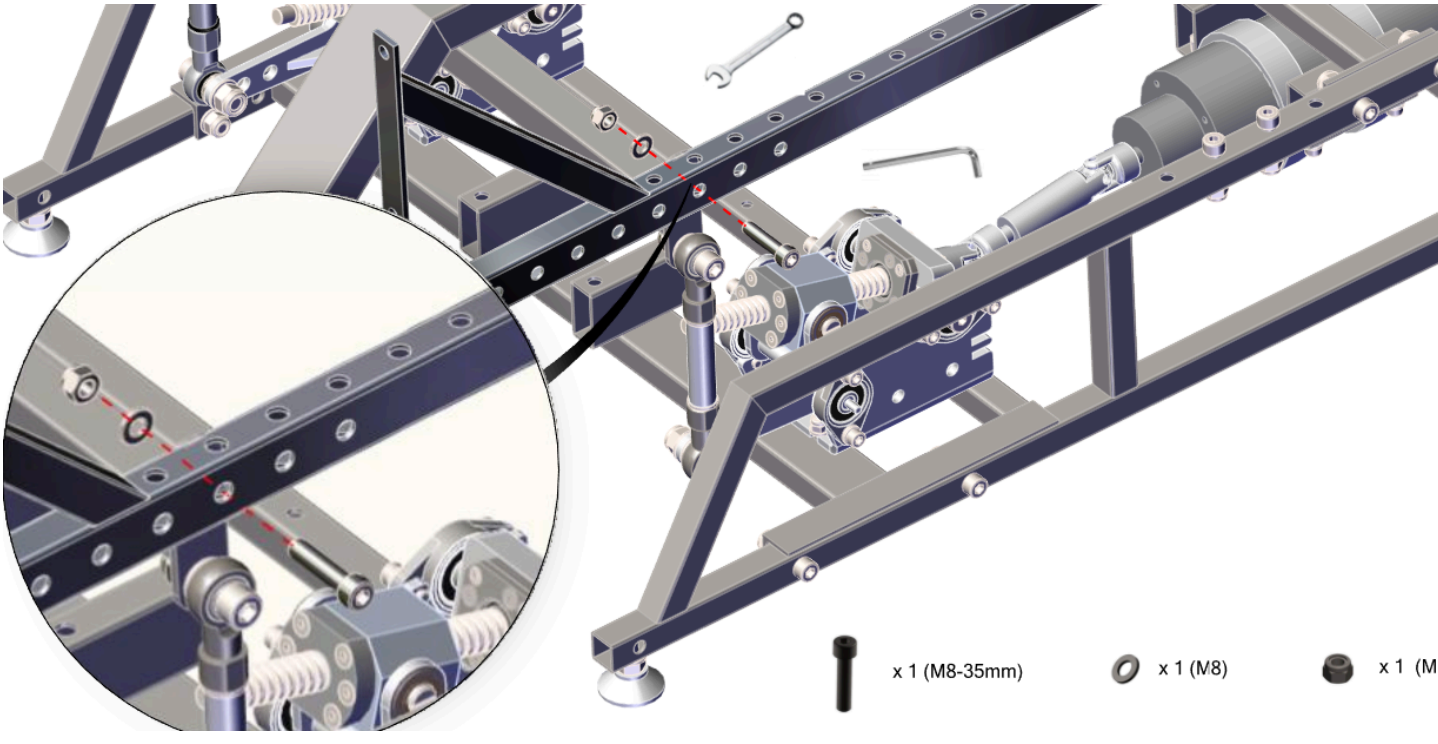
Insert M8x60 bolts from below



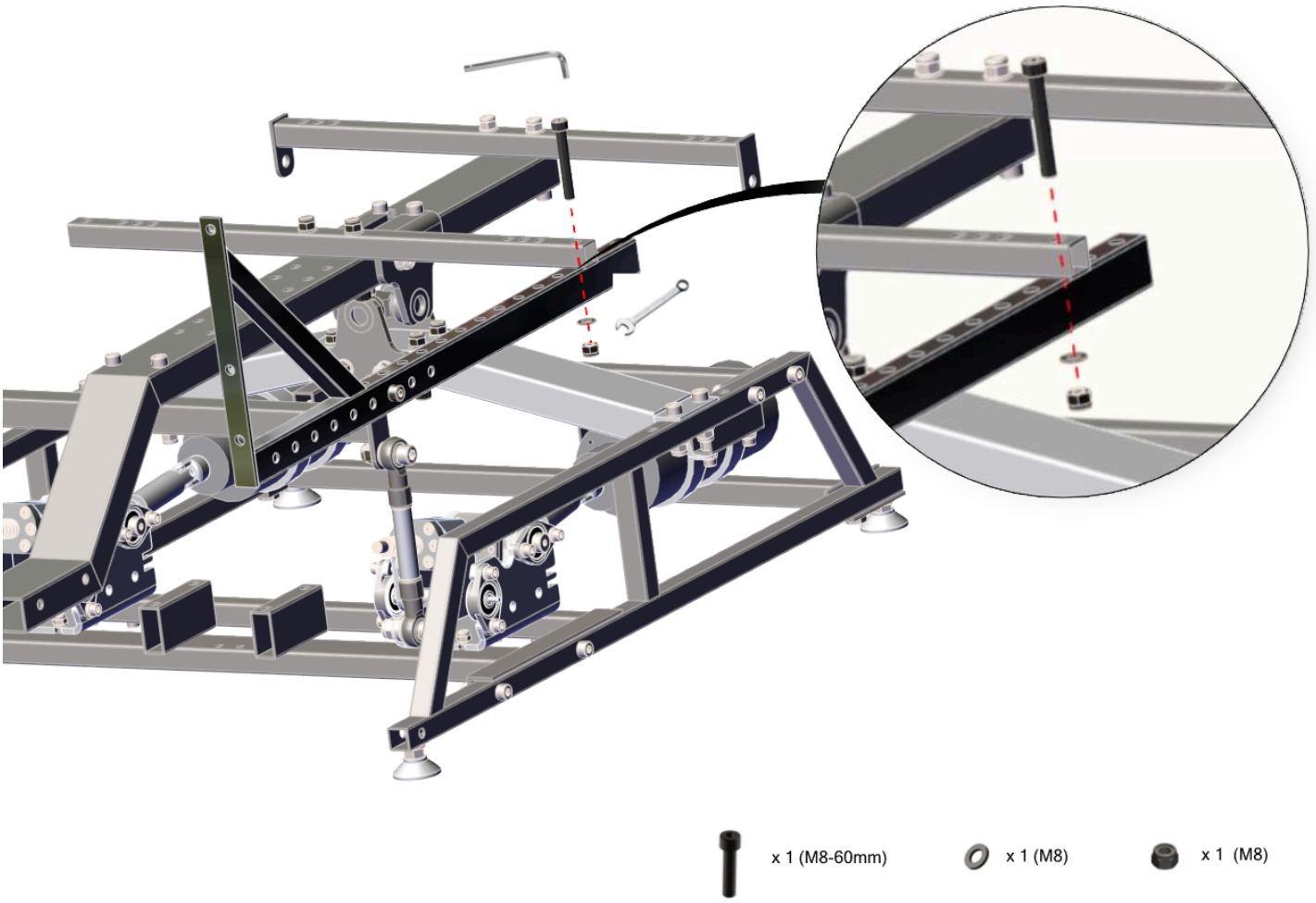


2.11. Assemble the Wheel Holder mount.

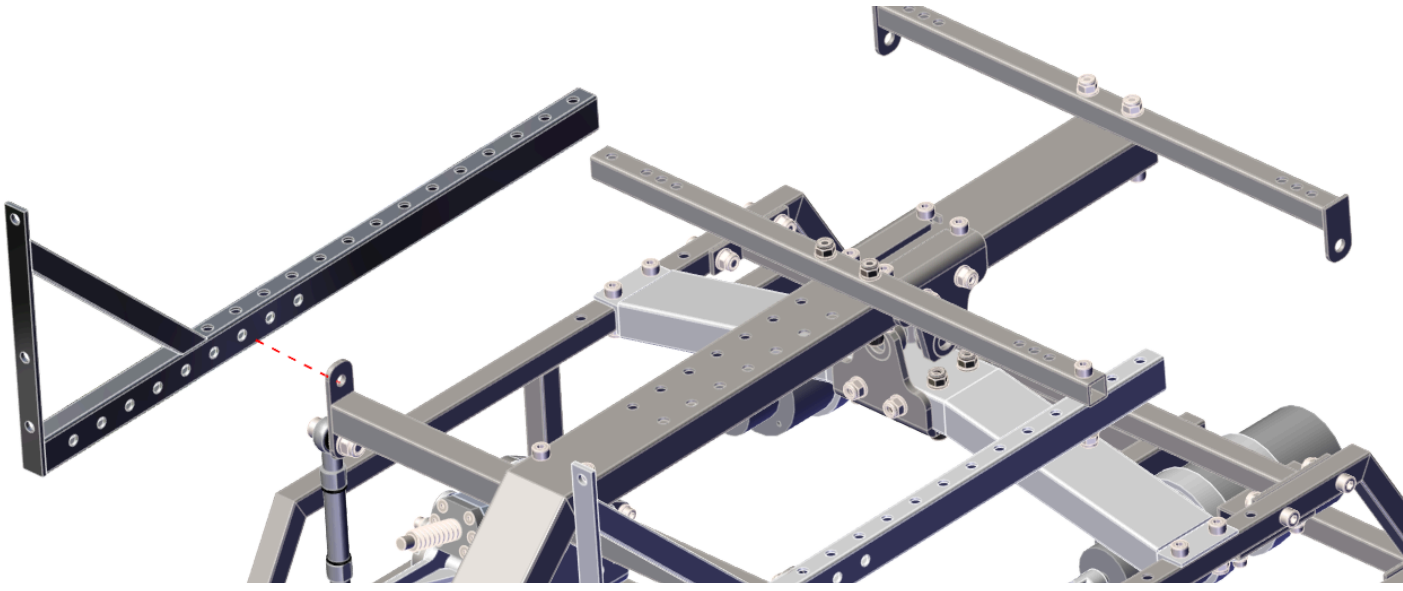
2.11.1. Mount the horizontal side frame of the Wheel Holder with an M8x35 bolt.



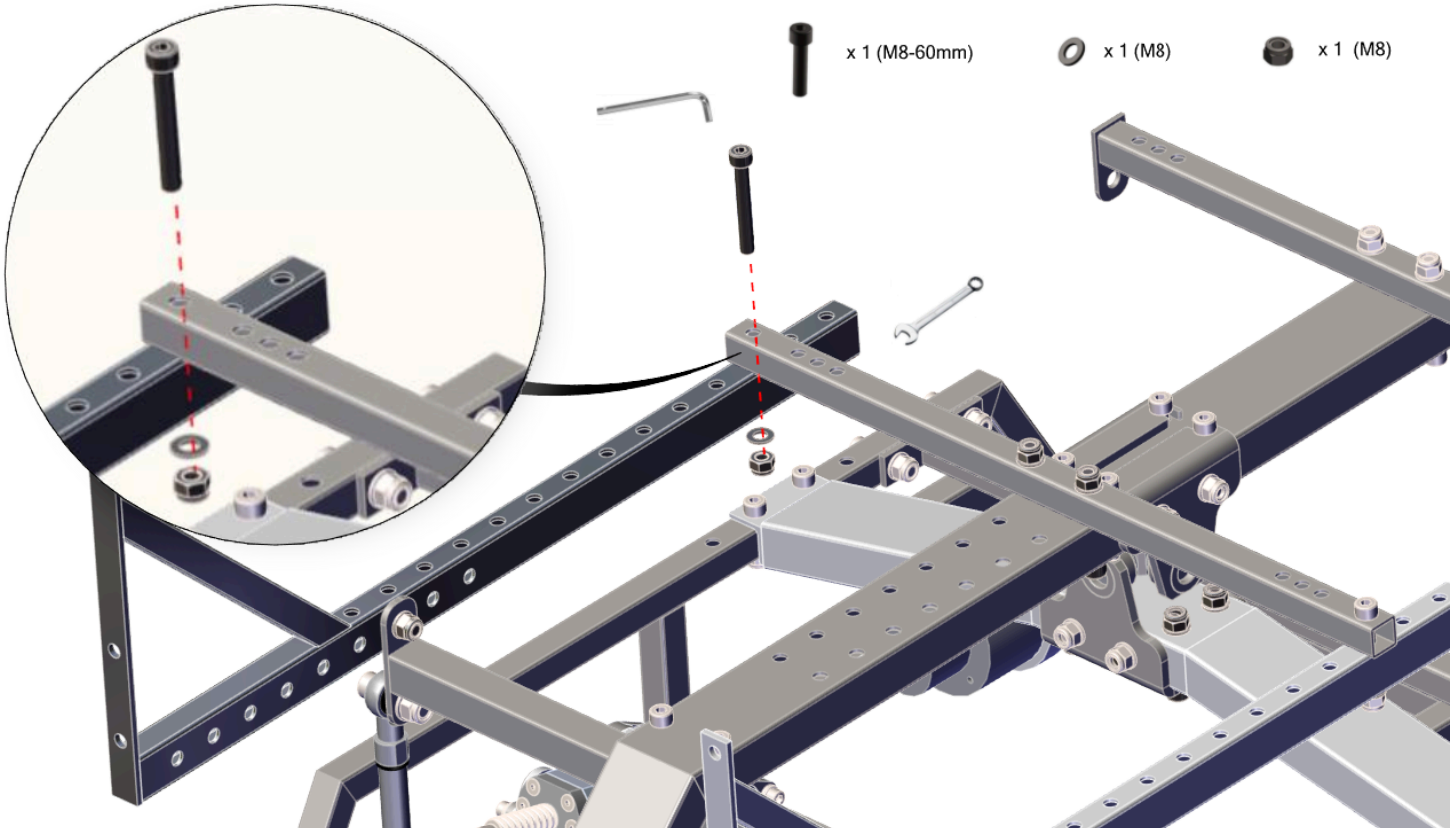
2.11.2. Mount the horizontal side frame Wheel Holder to the front seat bar with an M8x60 bolt.



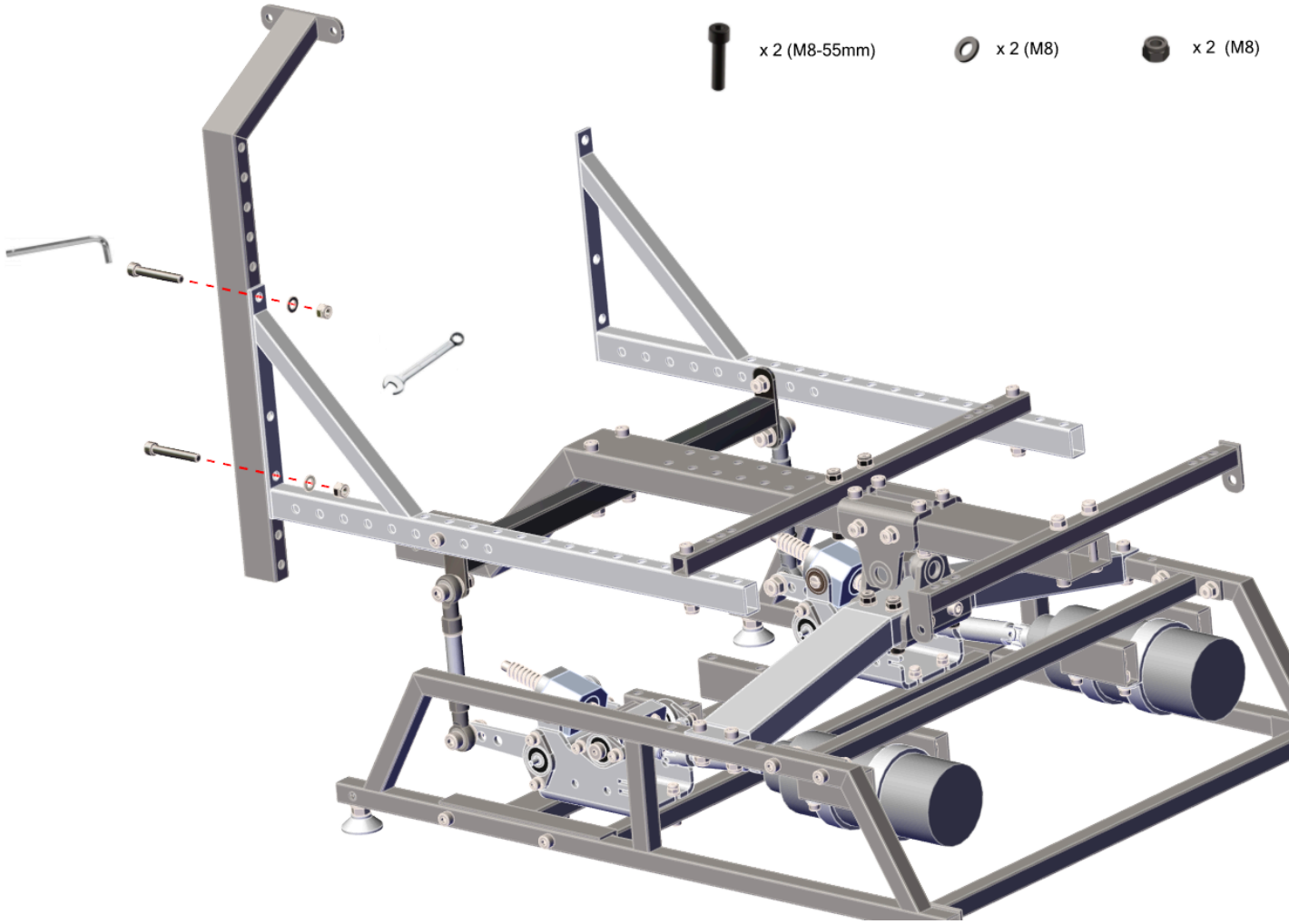
2.11.3. Mount the horizontal side frame of the Wheel Holder with an M8x35 bolt



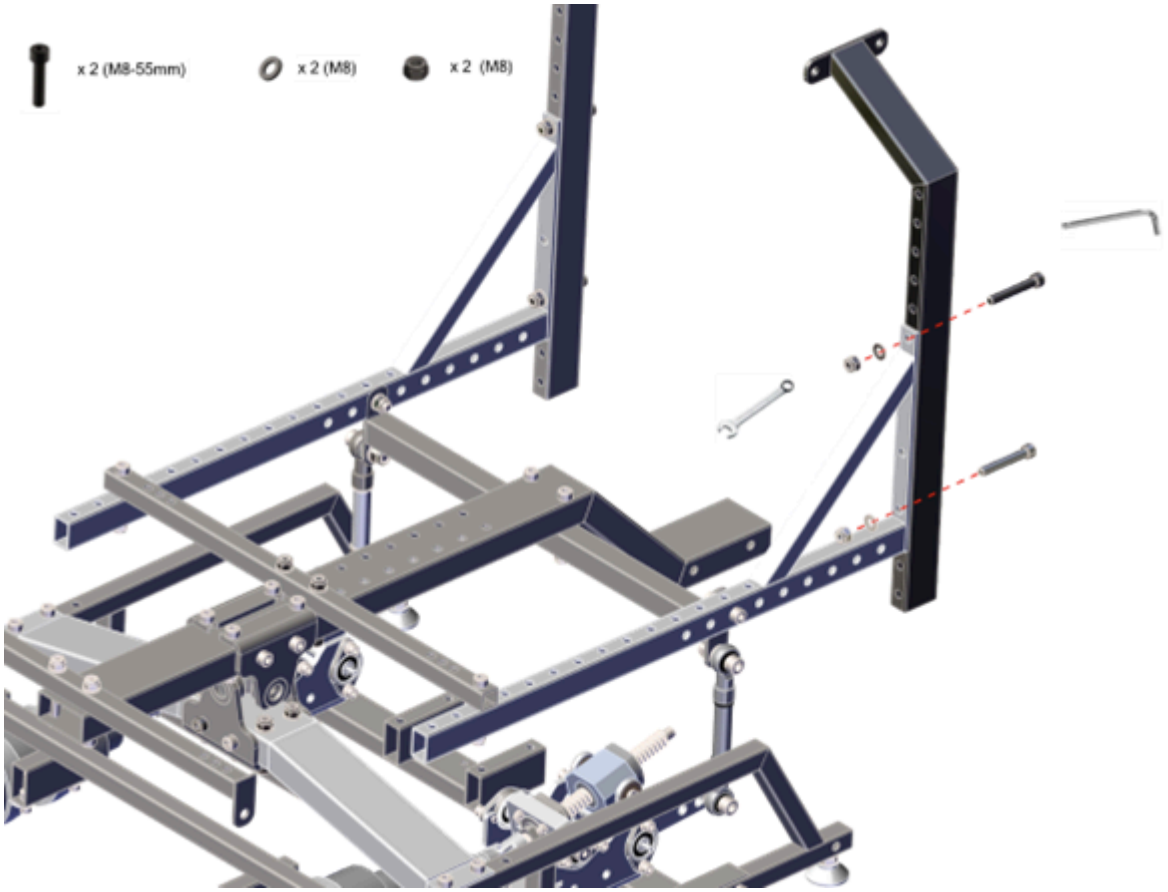
2.11.4. Mount the horizontal side frame Wheel Holder to the front seat bar with an M8x60 bolt.



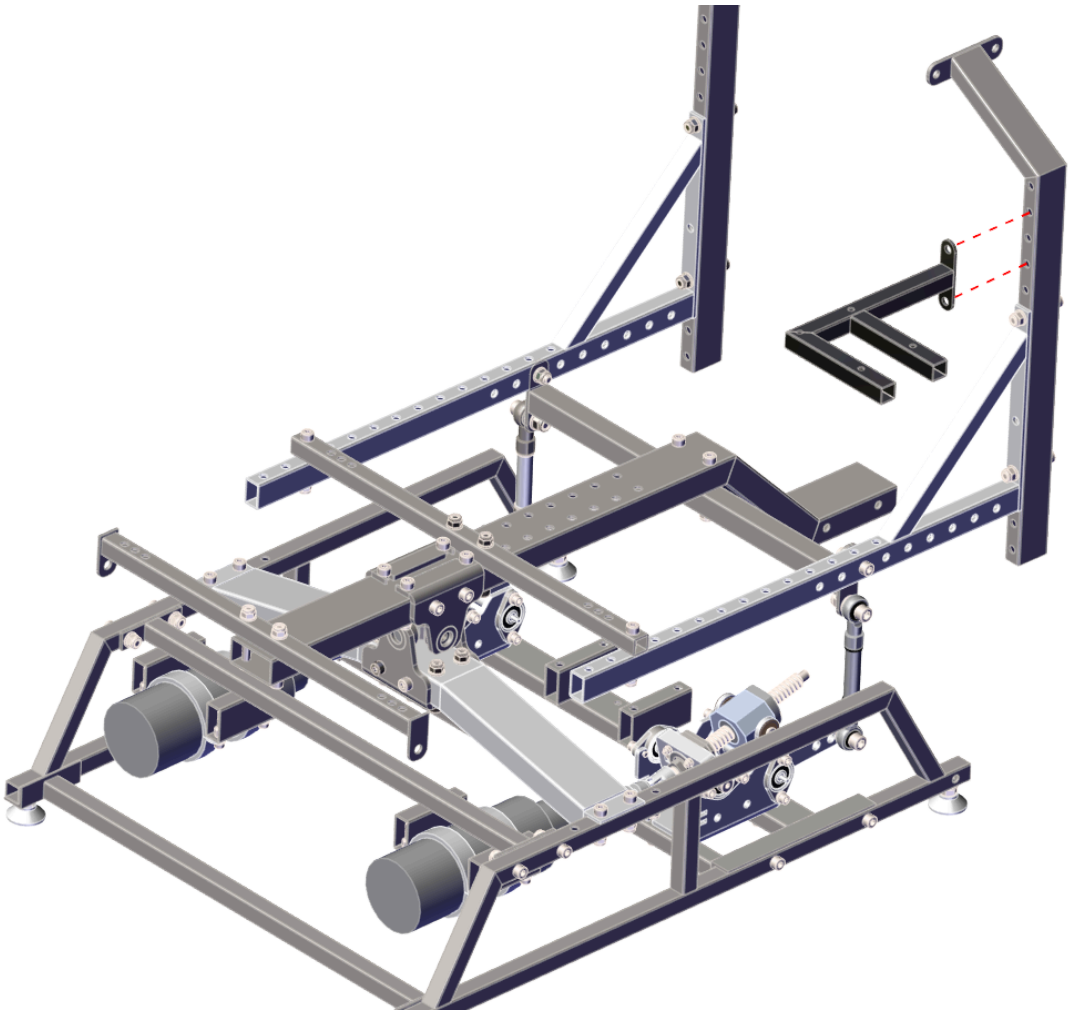
2.11.5. Mount the left vertical mount Wheel Holder with M8x55 bolts.

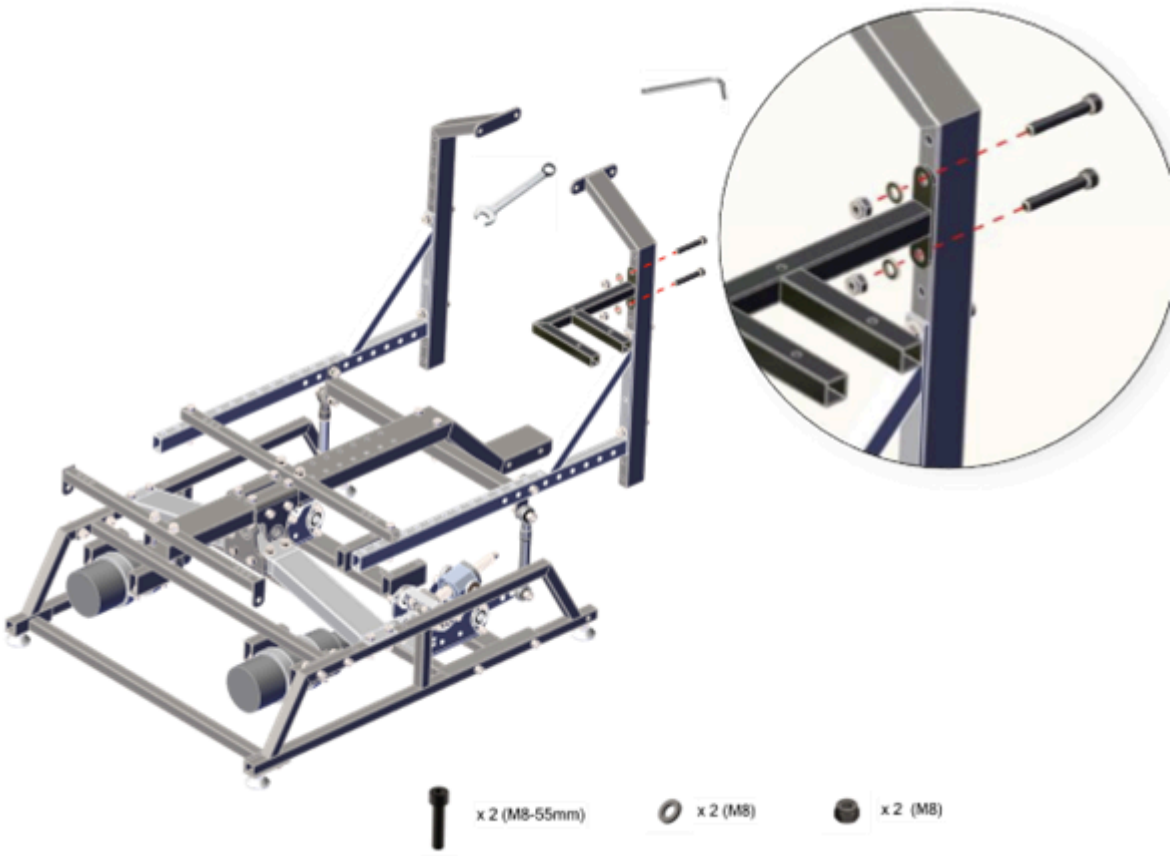


2.11.6. Mount the left vertical mount Wheel Holder with M8x55 bolts.

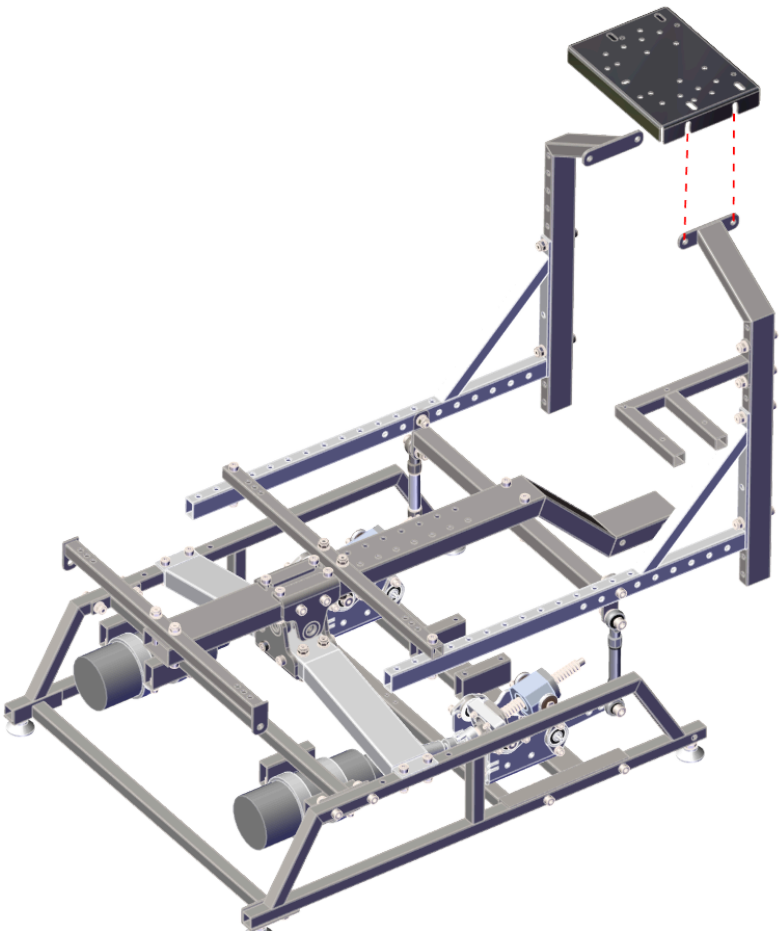


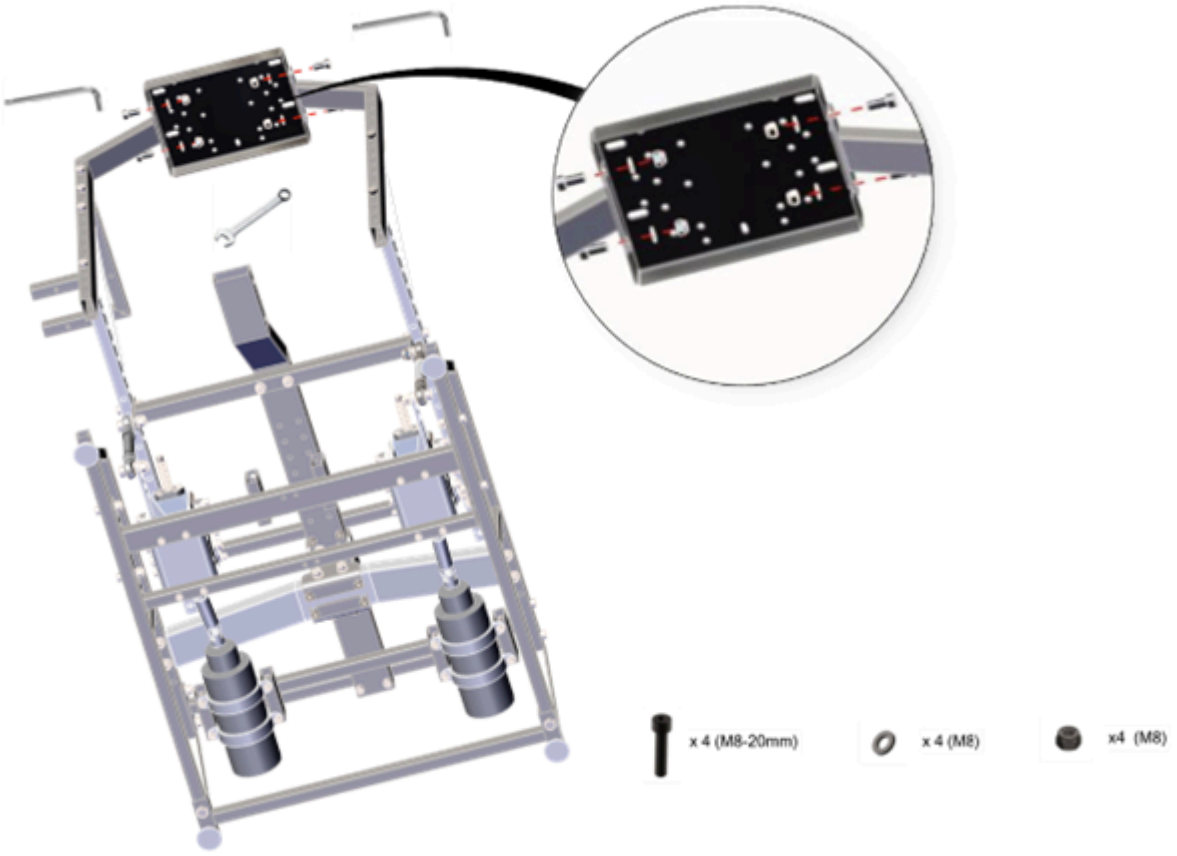
2.11.7. Mount on the gearbox mount (F-mount) with M8x55 bolts



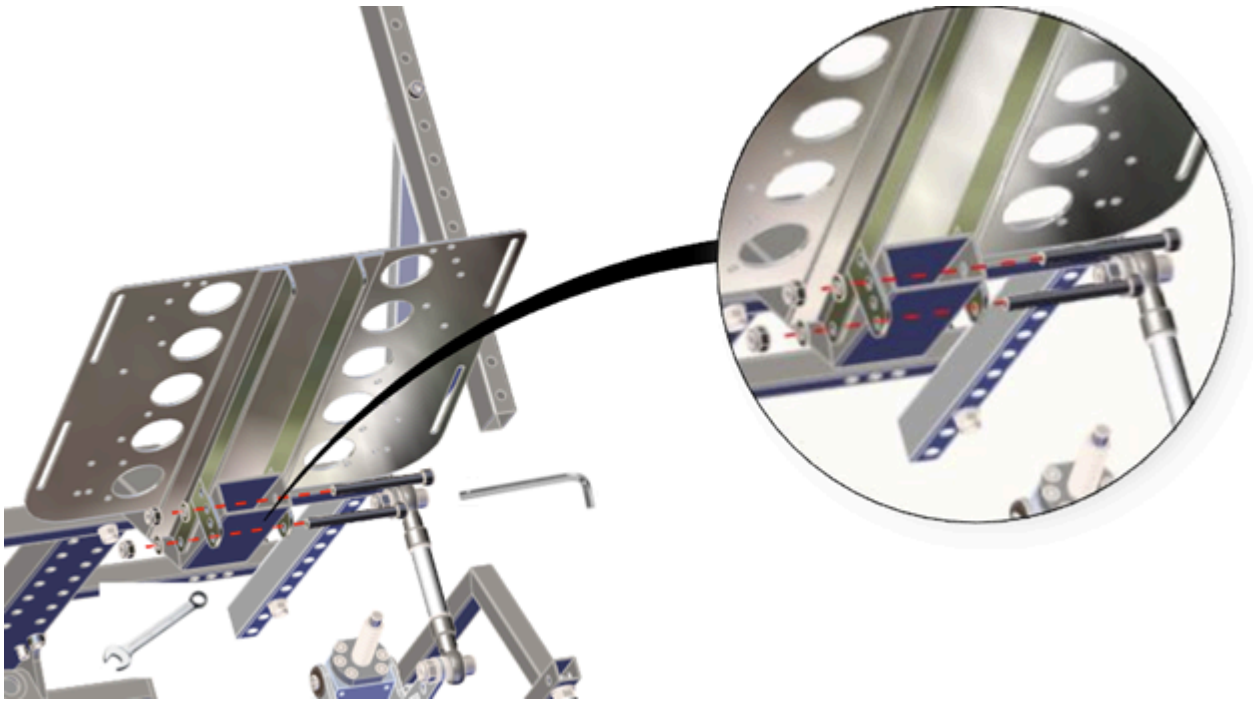


2.11.8. Mount the Wheel Holder table with M8x20 bolts.





2.12. Mount the pedal plate with M8x80 bolts.



2.13. Fully assembled platform

Congratulations, you've completed the platform assembly!

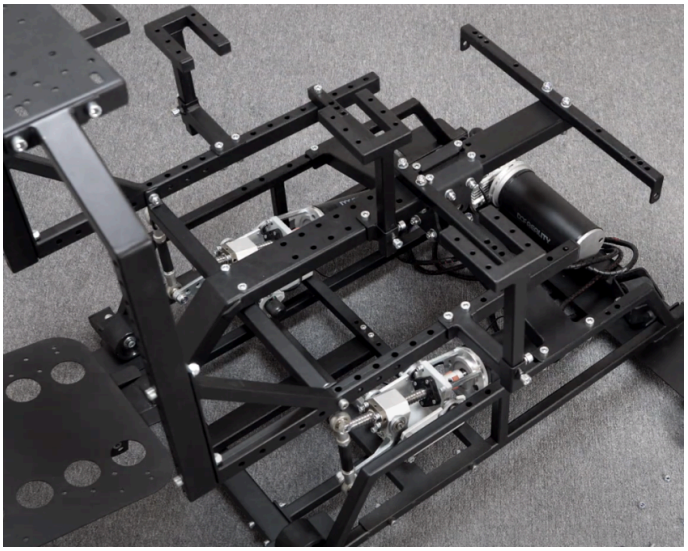
3. Additional Options Mounting

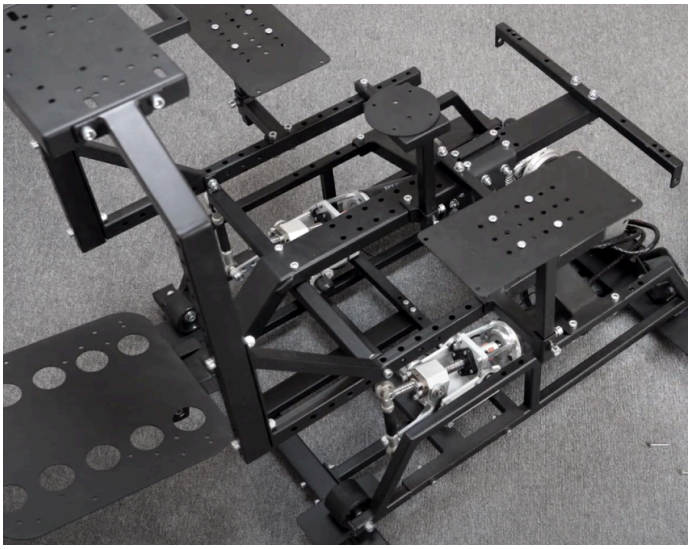
- ➔ Monitor mount: Assembly monitor mount DOF REALITY
- ➔ HOTAS mount video: Installation of brackets for HOTAS on a new frame
- ➔ Mount plate for Honeycomb: Mount plate for Honeycomb to DOF REALITY
- ➔ Quick Release pedal: Assembly Quick Release pedals DOF REALITY
- ➔ Keyboard holder: Keyboard holder on DOF REALITY

For the butkicker mount you can use the bottom of the main rail or bottom mounts same as wheel stand brackets.

For flight HOTAS sim configuration attach the throttle mount support same way as you did the main wheel stand.

You can rotate the support and move it closer or farther away. If you want to mount a joystick on the side you need to use F-mount.





4. Software Installation

Get the latest SimRacingStudio (SRS) app [Download Sim Racing Studio App]

SRS is the “brains” of the system, and will allow you to test the connection of the platform to your computer. You must have SRS running when playing games, as it tells the platform what the game needs,the platform moves with the game action.

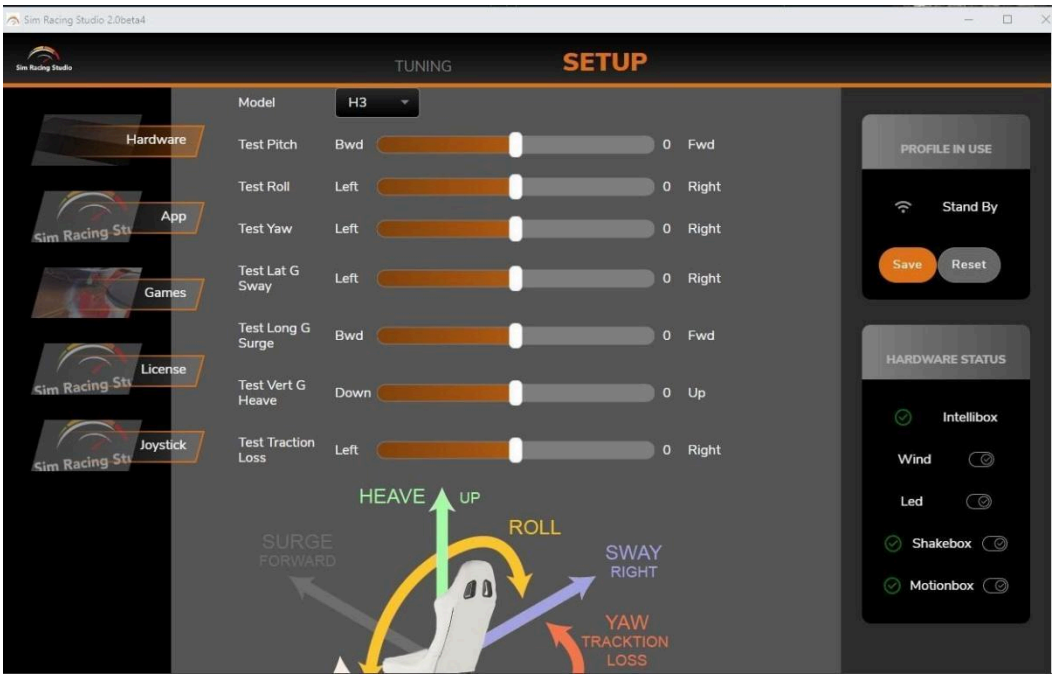
4.1. INSTALL LICENSE

Go to **SETUP**- >**LICENSE** tab and **ACTIVATE** your license by entering the license number you received in an email from either SRS or DOF Reality (Check your spam folder).
If you can’t find your license, you can recover it.

4.2. CONFIGURE HARDWARE

4.2.1 Goto **SETUP->Hardware**
4.2.2 Select Manufacturer DOF REALITY
4.2.3 Select your model.
4.2.4 Click SAVE
4.2.5 Wait up to 30 seconds for “Motionbox” to change to a green tick (bottom right corner of hardware status)

Green = Connected and License OK
Yellow = Connected but license not activated
Red = not connected to your DOF motion platform



If the motionbox is not connected, try to reboot your PC.
If after you reboot, it is still not connected, try these instructions to manually connect:

How to manually connect DOF Reality platform with Sim Racing Studio

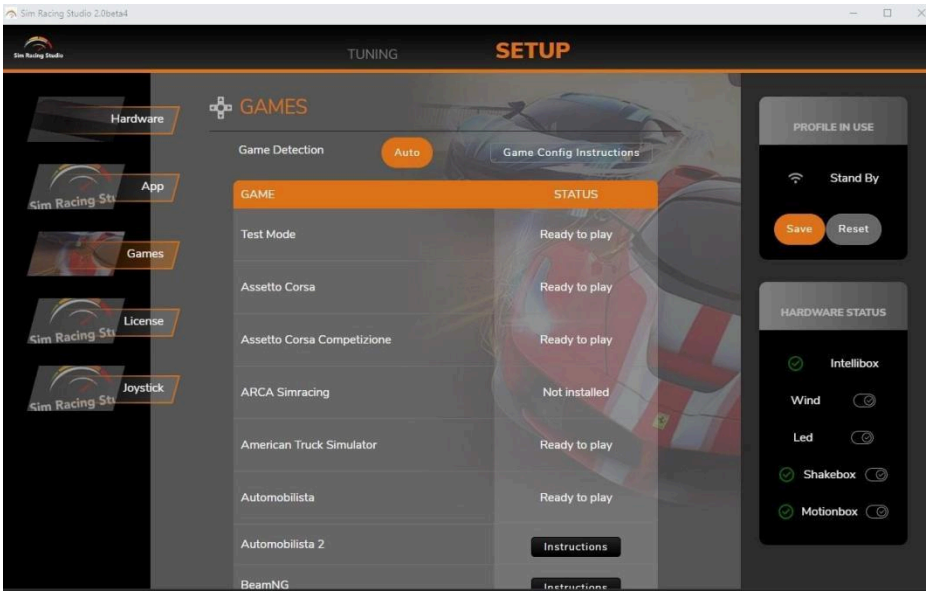
If SRS is still not connected,please check section 5.4 of this manual and contact support.

4.3. TEST HARDWARE

Once connected, use your mouse to move TEST sliders and see if the platform is moving and in the correct direction.

4.4. GAMESETUP (PC INSTRUCTIONS)

For the game console, please check here: [Sim Racing Studio Supported Console Games]



Check if your game requires anything special. Go to **SETUP-> GAMES** and click CONFIG or INSTRUCTIONS if needed.

There Are 4 Possible Statuses:

1) **Game not installed**. SRS did not detect your game. Some games require you to run the game first for SRS to see it. Run The game,Quit and restart SRS.
2) **Ready to play**. SRS detected game installed. Should Be good to go.
3) **CONFIG**: Press the button and SRS will try to automatically configure the game to your SRSconsole.If it is successful, it will say“Ready to play”.
4) **INSTRUCTIONS**. If SRS can’t connect to the game, it may be because they are only available in the“Game Menu", follow the instructions on the screen from the “Games” section. Most instructions are for changes in the game, not in SRS. Instructions will never go to “Ready to play” as we can't validate if you have successfully made the manual changes in the game or not. You can also check this article for more details on manual game setup [Game Setup Instructions - Manual Steps (PC)]

If you need additional help to make a supported game to work with DOF platform, please contact us by clicking here [Contact Us | Sim Racing Studio]

4.5. PLAYING THE GAME

SRS will automatically connect to the game once you have started the game, although you MUST have SRS running when you open the game in order to engage the platform. Note that some games require you to start a race to connect. Somegames connect from the main menu.

There are 3 game statuses that will tell you if everything is ok or not. Check the PROFILE IN USE box on the top right of SRS.

1. **STANDBY**:Game not running
2. **GAME RUNNING**: Game is detected no telemetry to move platform has yet been received. For Some games,this is NORMAL as they only send telemetry once you are on the track or in the air. In this status, you also unlocked the TUNING -> MOTION settings. Now you can make changes to the tuning parameters (See below).
3. **TELEMETRY DATA**: All good. If the MOTIONBOX status is green and SRS is in this status, the platform will be moving for this game. Make Sure platform boxes are **ON**

A) Intellibox is for Wind (if you didn't buy the wind accessory, you won't have this),

B) Led and Tach are used if you bought an LED or Tachometer as a separate accessory for your racing system.

C) Shakebox is for the buttkicker.

Try to mouse over the status icon to get more info.

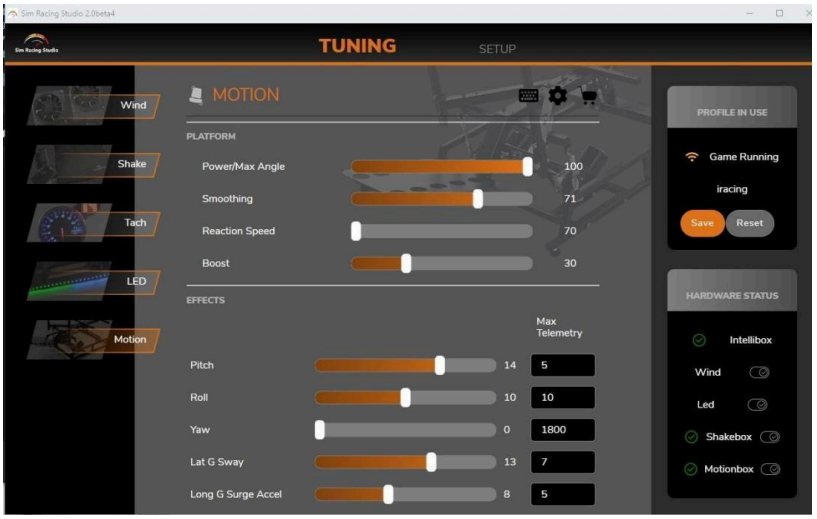
4.6. TUNING (Fine tune the platform to move exactly where are you want)

The SRS App has been tuned by our team to provide a great experience out of the box.

If you want to more-tune the motion, you can do it simply by changing the sliders in SRS by going **TUNING -> MOTION**.

This can be done ONLY while the game is running. If the game is running, SRS app will automatically select this game and or vehicle.

Once you have adjusted your tuning, click **SAVE** and next time you open the game (along with SRS), these settings will be loaded automatically.



For more profiles visit [Motion Profiles - Non Actuator | Sim Racing Studio]

4.7. SRS tuning tips

DOF Reality H3 | Assetto Corsa Settings

Motion too weak? too strong?

Motion: How "Power/Max Angle", "Reaction Speed","Smoothing" and "Boost" affects my ride? Test Works...Game Doesn't? -> Manual Game Detection Mode

You can also find additional help in our FAQ. Sim Racing Studio Support

4.8. VR (Virtual Reality)

The DOF motion platform can be used with any VR headset.

There are some subtleties to be considered when combining VR with a motion platform.

The motion platform will move the player's head, which will move the VRheadset, which will automatically affect the amount of movement you see in the VR image. Most of the time, the degree of motion is not enough to impact gameplay and can be ignored like in this example video DOF Reality H6 FAQ video

If the additional motion of the VR image is too extreme, you might need to turn down the motion of the platform to a lower setting. This will minimize the "hopping/swimming" type of effects in the image and will give you a smoother experience with VR.

4.8.1. Software Solution for Motion Compensation

If the amount of movement in the VR image is too much and you do not want to turn down the motion, you can utilize motion compensation software which removes the platform movement from the VR image. You Have Few Options:

1) Best way is to use OpenXR OpenXR Motion Compensation Setup : Sim Racing Studio

2) Alternative SimRacingStudio Motion compensation premium feature: Motion Compensation

3) OpenVR Motion Compensation is the current software to be utilized for motion compensation which can be downloaded here:OpenVR Motion Compensation. OpenVR Motion Compensation will track the movement of a tractor mounted on the platform and remove the motion of the platform from the movement of the VR headset. OpenVR Motion Compensation Can work with both Types Of VRheadsets (base stations and inside-out tracking).

OpenVR Motion Compensation Tutorial Video:
Motion Compensation Tutorial / OpenVR Motion Compensatio…

OpenVRMotion Compensation Install and Setup:
Install and Setup | OpenVR Motion Compensation

There are primarily two types of VR headsets and they require the tracker to be mounted differently.

Ones that utilize base stations (outside-in) for tracking of the VR headset movements such as the Valve Index, HTC Vive Cosmos, Pimax 5k/8k* and the original Oculus Rift (CV1).

The other type utilizes cameras in the headsets that provide inside-out tracking which include the HP Reverb/G2, Oculus Quest/Quest 2/Rift S**, Samsung HMD Odyssey+and other Windows Mixed Reality (WMR) type headsets.

For VR headsets that utilize base stations, a tracker or controller (Valve Index Controller, HTC Vive Controller, HTCVive Tracker) must be mounted on the motion platform and be in-line of sight by all the base stations. It doesn't matter where the tracker is mounted as long as it's visible to all the base stations, though typically they are mounted near the head at the top of the chair.

For VR headsets that utilize inside-out tracking via the cameras on the headset, a controller (Oculus TouchController or WMR Controller) must be mounted on the front of the motion platform so it is in-line of sight of the cameras on the headset.

In either case, the tracker must be
1) firmly mounted to the platform and
2) must utilize some type of vibration mitigation.

Vibration mitigation can be achieved by
1) adding additional mass/weight to the mount so it absorbs vibration energy
2) using a vibration absorption material like soft rubber or sorbothane.



Another potential software solution is the older version of motion cancellation called OpenVR Input Emulator.

Though it is no longer being developed, there is still limited support from the community via its download page here: Releases · matzman666/OpenVR-InputEmulator.

HTC Vive/Vive Pro: HTC Vive/Vive Pro VR Motion Cancellation Setup Guide Using Iracing Software (JMB3D)

Oculus Rift setup: Oculus Rift Motion Cancelling

* For Pimax users, the PiTool can potentially be utilized for VR Motion Compensation: Pimax In PiTool, turn on a Valve Index controller, select it as the sensor in PiTool “MotionCancellation“ and open the game. However, support is not guaranteed and may not work properly.

** The Oculus driver for SteamVR is made by Valve and not by Oculus as they only support their own closed ecosystem. This causes issues with

1) big motions on Oculus devices might see a black border on the edge of your viewand

2) rotation is not always compensated correctly.

4.8.2. Hardware/Non-Software Based Solutions for Motion Compensation

1) For VR headsets with inside-out tracking, consider covering one of the cameras with tape. It will prevent the headset movements from being tracked in the environment and provide some VR motion compensation without significant side effects and the need to use motion compensation software:
iRacing Dirt Sprint 410 Knoxville Raceway DOF Reality

2) For the Oculus Rift, attach the sensor to the platform using the DOF Oculus mount and cover the cameras on the VRheadset. This disables the 3D tracking, which prevents the camera from jumping around in the game. However, this method also disables the rotation tracking, so if the motion platform turns on its yaw axis,you will have to turn your head to look forward in game. It’s suggested to limit the Yaw movement in your motion platform software in order to make the rotation just enough for you to feel but you will not have to turn your head to look forward in the game. This of course is not ideal,but doesn’t require motion compensation software.

3) For original Oculus Rift (CV1) users, the Oculus Rift sensor could be mounted directly to your DOF Reality Platform to provide simulated motion compensation without the need to use motion compensation software; however, due to the recent Oculus update this solution may or may not work.

4.8.3. Additional VR Motion Compensation Resources

- OpenVR Motion Compensation Tested Devices: https://ovrmc.dschadu.de/en/testeddevices
- XSimulator Motion Compensation Thread: OpenVR-MotionCompensation
- XSimulator Motion Cancellation Thread: VR Motion Cancellation - Time to test!
- HTC ViveTracker Mount Example: [Sim Racing] DOF reality V3,Good motion rig for VR, Introduction of my system

5. Troubleshooting & Maintenance

The simulator does not need much maintenance, but you should check for loose bolts or other abnormalities periodically (we recommend once a month).

Confirm the security of the nuts and bolts every few weeks.

Listen for any abnormal noises, if encountered please follow the instructions below on how to grease the ball joints attached to the motor arms.

Some play in the gearboxes and arms joints is unavoidable. It is in the nature of the gearboxes to have play. otherwise, they won't move.

Some gearboxes have less at the beginning, but with time they all will get it. It is normal to have up to 10% of the motion range.

Motors can be warm after hours but should not be overheated over 70C.

If dampers are included in your order, don't tighten them over setting this will negatively affect motor lifespan.

5.0. Control box errors buzzer decoding

After the control box controller reboot.

There few internal platform tests performed and the buzzer reports errors and information with the short and long beeps sequence.

Information	Details
one **long**: using firmware from bank 1	For redundancy each controller has two firmware banks. Either of them can be used.
two **long**: using firmware from bank 2	For redundancy each controller has two firmware banks. Either of them can be used.
three **long**: box is not powered USB is connected to the box but there is no power. It is normal to hear it when you turn **OFF** the box and keep USB plugged. After it the controller might reboot and beep about firmware bank and again for no power present.	But if power is **ON** there is power issue in the box like a) EMERGENCY STOP button pressed b) bad AC power cable (check it) c) bad power switch d) if fans are spinning: faulty internal power supply on the motherboard inside the box. Contact our tech support support@dofreality.com
four **long**	Firmware model configuration not present. Contact our tech support support@dofreality.com

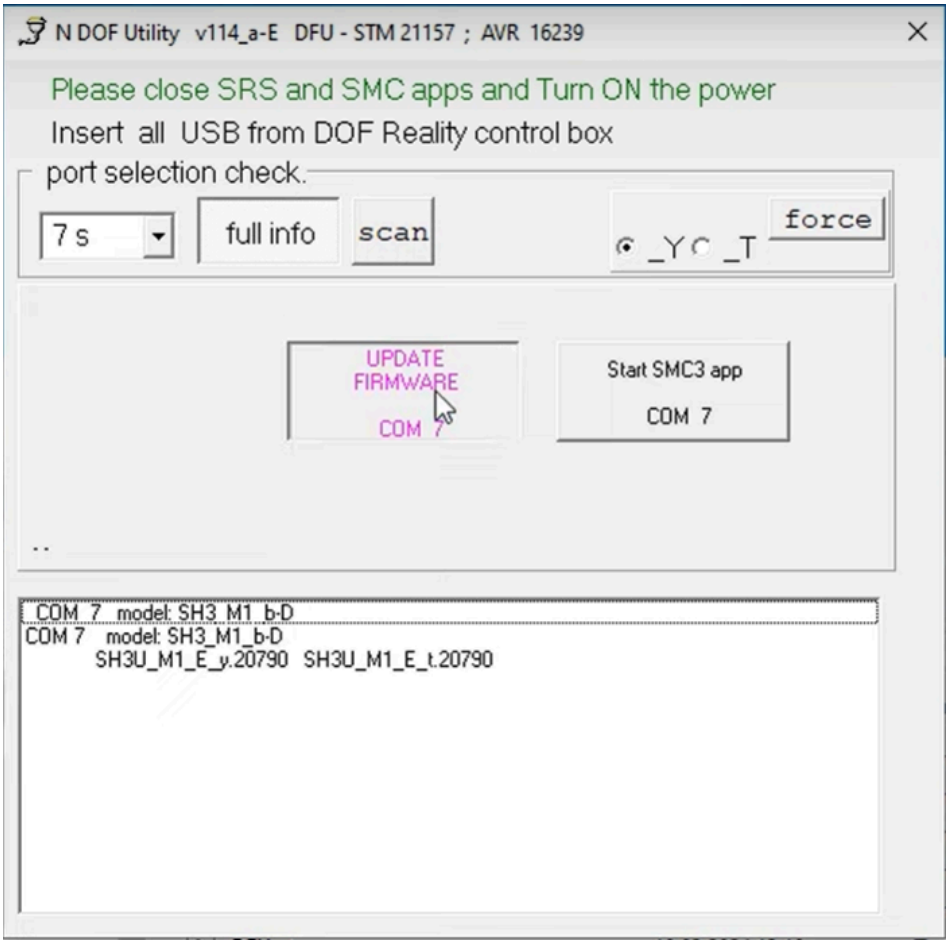
Example: Two long beeps after the control box powered – the firmware from bank 2 is used.

Issue	Location
- one **short**: feedback sensor issue	one, two or three **long** beeps refers to the specific motor/port number. Check sensor phone connector and wire.
- - two **short:** motor self-calibration issue	one, two or three **long** beeps refers to the specific motor/port number. Check that nothing blocks the motor and gearbox from moving both directions. Check the motor power connector and cable. Check platform weight balance.
- - - three **short:** motor or power issue	one, two or three **long** beeps refers to the specific motor/port number. Motor is not performing as it should. Check the motor power connector and cable. Check platform weight balance.

Example: two short and three long beeps – there is an issue with motor/port 3 calibration.

5.1. Firmware update

1. Download, unzip to local folder http://dofreality.com/tools.zip
2. This app is only compatible with platforms using an STM control board. If your platform uses an Arduino board, please contact our support team for firmware installation assistance. To check which board you have, open Windows Device Manager → right-click the device → Properties → Details → Hardware ID. Alternatively, reach out to us and we can look it up based on your order history. Please note: since 2023, all our platforms have been shipped with STM boards only.
3. Before starting the firmware update, make sure that only one device is present in Device Manager → Ports (COM and LPT) - the control unit that needs the firmware update (or two control units if you have the H6/P6 model). To do this, disconnect all other devices that may also appear in this list. Make a note of this port number.
4. Disable Bluetooth on the computer.
5. Turn off the power to the control unit. Close the SRS and SMC applications.
6. Run the “DOF Reality Tools (run as Administrator).exe” application as administrator. If a blue screen prompt appears, click “More Details” and “Run Anyway”.
7. Next, follow the instructions from the application:
    a. -Close the SRS and SMC applications turn on power to the control unit.
    b. -Connect all USB connectors from DOF Reality to the computer. Wait 10 seconds.
    c. -Press “Scan.”
    d. -If the application detects an older firmware version in the control unit, an “UPDATE FIRMWARE” button will appear indicating the control unit's COM Port. It must be the same as the comport you recorded earlier. Click on the update button.



8. Run this procedure again to make sure the firmware is updated and the application no longer prompts for an update.
9. You can use this video tutorial https://youtu.be/od7K5_-Cnas

5.2. If one or more of your motors are stuck

If a motor gets into the “protection zone”, it may stop responding. If this occurs, the mechanical position is so far out of line that the software locks.

To unlock it:

1. Power Off all control boxes
2. Close SRS applications
3. Download https://dofreality.com/tools.zip
4. Unzip all archive contents into any local folder on your PC
5. Run Tools app - there are no viruses or malware there. You can ignore antivirus warnings. Follow on screen instructions and click the “Start SMC3Utils” Button.
6. Only if you can’t get previous step to open SMC app without error: Open with notepad file SMC3Utils.ini and set COMM_PORT= to proper COM port number

from your Windows DeviceManager (see 5.1) Each control box has a specific port number. Test one box at a time. Start/run SMC3Utils.exe. If you are getting error messages about the COM port communication, you haven't set the port number properly in the previous step.

7. Select the problematic motor. Most commonly, in the SRS application, the motor will be shown as OFF and the green line on the chart for it is below the blue line.
8. In the left bottom of the SMC app **Out Mode** select 'Motion' and then switch to 'Manual' radio button. Write down current Max Limits and Clip Input values (on the right of the SMC3Utils window) and reduce them to 0. Normal is mentioned in 5.3.20
9. In SMC3Utils click 'sine' and click the small OFF button in the top left hand part of the screen, so it becomes ON. Select the button next to the motor you are adjusting. If you can't set the motor to ON, zero the motors Clip Input and Max Limit to unlock it as one motor locks all.
10. Power ON the platform
11. The motor should move back to normal position. If you want to check the motion, you can select the 'Sine' radio button and see that it moves appropriately.The green line is a reflection of the measured motor position (where it actually is), the blue line is the desired motor position (where it theoretically should be).These will not be perfectly aligned, but should be similar.
12. If the motor arm has recalibrated, reset the original Max Limits and Clip Input values (you need to increase Clip first and then Max as max can't be bigger than Clip) and close SMC3Utils.

5.3. Motor arm is not horizontal in the neutral position

Motor arm is not horizontal in the neutral position or calibration issue
It is important to follow proper instructions for your motor feedback type.

5.3.1. ENCODER based motors

You may have ENCODER based motors. They look like this:

These motors have an auto calibration function that is performed each time you power on.

Each motor will move to the limit and back to the middle – normal position.

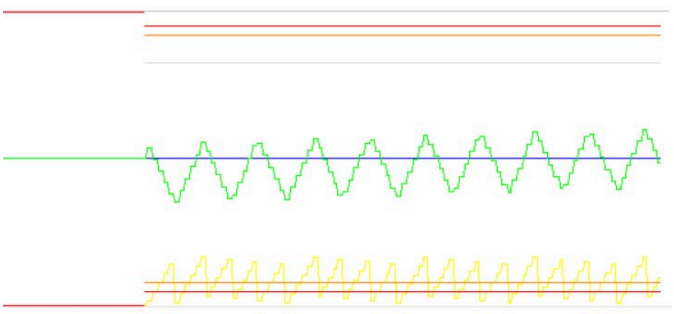
If one or few motors fail to do so the system will indicate it with the corresponding beeps (see 5.0) and get into the self testing mode until the issue is fixed.

If this happens, you need to check that all connectors (power and phone RJ12) are properly plugged to the proper ports of the control box and do full power cycle (turn power off and disconnect USB for at least 20 seconds).

If an issue persist you need to:

Before starting, fully exit everything else on the PC possible, especially SimRacingStudio and SimHub(check the Windows task manager to make sure).

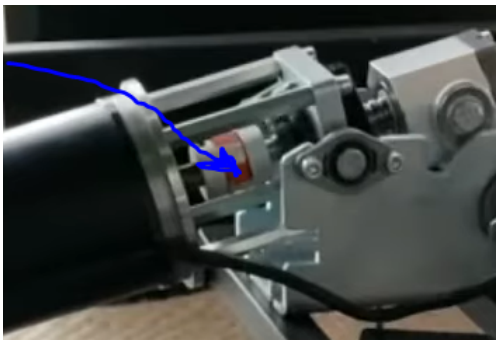
1. Download https://dofreality.com/tools.zip, unzip all contents into any local folder on your PC. Run Tools app-there no viruses or malware there.You can ignore antivirus warnings.
   Wait until the box stops beeping. Follow on screen instructions and click “Start SMC3 Utils” Button. You should not see or ignore any errors.
2. Only if you can’t get previous step to open SMC app without error:
   Open with notepad file SMC3Utils.ini and set COMM_PORT= to proper COM port number from your Windows Device Manager (see 5.1)
   Each control box has a specific port number. Test one box at a time. Start/run SMC3Utils.exe.
   If you are getting error messages about the COM port communication, you haven’t set the port number properly in the previous step. You should not see or ignore any errors.
3. Once SMC is open and box beeps are done you can see a value for Calcs/sec in the mid bottom of SMC (if not SMC is not started properly). You can select the motor in question and it should move back and force (if you need to test Motor 1 you need to select Motor 2 and then back Motor 1 (only after end of testing Motor 2) and the chart looks like this on photo below:



Motor should move in both directions and the green line on the charts should be moving as well. This confirms that the motor is working and the encoder is working as well.

If the motor was not moving at all or only in one direction, please contact our tech DOF Reality Support detailing the tests you did and results.

If the motor was moving , but the green line is not – rotate the coupler between the motor and SFU gearbox with your fingers and see if the green line on the chart will be moving in both directions.

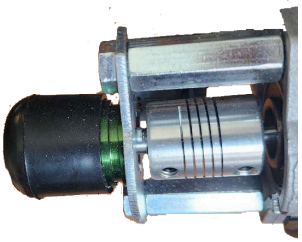


If not – contact our tech DOF Reality Support detailing the tests you did and results.

4. Default setting on screen below:

5.3.2. SENSOR based motors

You may have SENSOR based motors. They look like this:



If your motor arm is out of the natural/level position it should be reset.

To recalibrate the motor arm, you will need the small “allen wrench” or “hex key” provided in your hardware kit.

Over time the motor-sensor coupler bolts may get loose and the neutral motor position can get

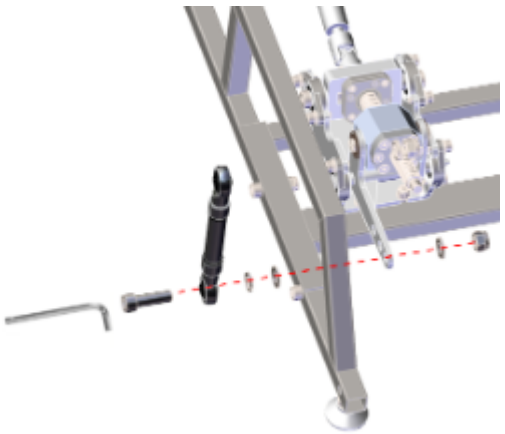
misaligned from normal (often the arm moves just a bit higher than horizontal). If this is the case perform tests (see section 5.4) to make sure the motor is moving correctly first or consult DOFReality support.

Please review the video of the calibration procedure:

https://youtu.be/iiq-ZxtglXA

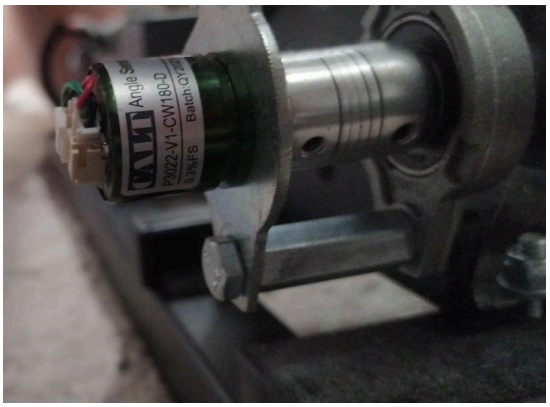
Before starting, fully exit everything else on the PC possible, especially SimRacingStudio and SimHub (check the Windows task manager to make sure).

1. Download https://dofreality.com/tools.zip, unzip all contents into any local folder on your PC. There are no viruses or malware there.You can ignore antivirus warnings. Run “SMC3Utils v1.02”.
2. Only if you can’t get previous step to open SMC app without error:
   Open with notepad file SMC3Utils.ini and set COMM_PORT= to proper COM port number from your Windows Device Manager (see 5.1) Each control box has a specific port number. Test one box at a time. Start/run SMC3Utils.exe. If you are getting error messages about the COM port communication, you haven’t set the port number properly in the previous step.
3. Make sure the DOFR control box power is OFF (make sure motor connections and the USB remain fully plugged in).
4. Using a wrench and the large allen wrench, disconnect the rod from the gear crank that needs to be re-calibrated. Disconnect only from the motor side and leave hanging freely. If you have a damper attached, you will need to disconnect that as well. The motor needs to be free to move.

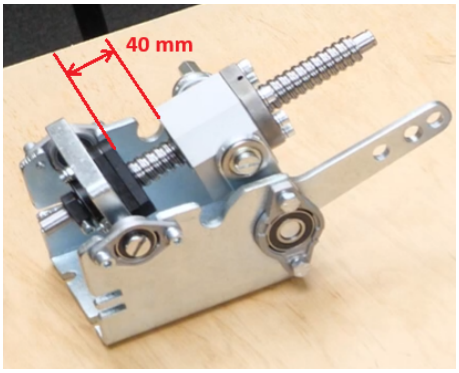


5. Power ON the DOF REALITY control unit.
6. On the side of the motor pointing towards the center of the platform,use a small allen wrench to loosen the “coupler” (silver tube like roller). You only want to loosen the two small allen screws on the MOTOR SIDE. The other side is the “sensor” that connects to

the plastic cover. Do not touch the sensor side allen screws.



7. On your PC go to the SMC3 application mode Monitor. With a computer screen-shot take a picture of the SMC3 screen with the current settings and values (IMPORTANT).
8. At top left of SMC3tool now click “ON” the motor that needs calibration.
9. Click “KP” down to “60”
10. “PWMmax” to “60” and “Ki” to “0” (zero).
11. “Max Limits” and “Clip Input” to “0”.
12. By hand, slowly rotate the “coupler” (silver tube like roller). It will move the green graph line in the SMC3tool. Make sure this is happening.If not,start over.
13. The SFU head should be left 40+/-5 mm away from the baseplate.



**Worm gears only: Now slowly rotate the coupler until the small worm gear lever is positioned at the “2:30” position as on a clock (pointing forward, AWAY from the black portion of the motor).*

14. Now looking at the SMC3 program tool, slowly rotate the coupler until the green line sits in the middle of the graph slightly below the blue line.
15. Now take the allen wrench and without moving the “coupler”, properly tighten ONE of the allen screws we previously loosened (as you do this make sure the green line stays in position on SMC3 with the blue line).
16. Tighten then the second allen screw.
17. Now in the SMC3 application, turn all values back to original settings(from your earlier screen-capture picture).
18. Default setting on screen below:

19. On the SMC3tool at the bottom left area, click “Sine”.
20. If we have been successful the green and blue line on the SMC3 will start moving up and down almost together with the black motor arm we just re-calibrated.
21. Exit SMC3 tool and you are ready to go.
22. If this is not fixing your problem, please review and repeat these steps very carefully. If you are still not able to recalibrate the motor arm to a horizontal position,contact DOF Reality support.

5.4. Something is wrong with my platform

1. Check all cables and motor connections, and the E-Stop Button.
2. Close and exit SimRacingStudio.
3. Power ON the Control Unit
4. Make sure that the only device listed in the Device Manager → Ports (COM and LPT) list is the control unit. To do this, disconnect all other devices that may also appear in this list.
5. Download https://dofreality.com/tools.zip
6. Unzip all contents into any local folder on your PC.
7. Run Tools app - there are no viruses or malware there. You can ignore antivirus warnings. Follow on screen instructions and click the “StartSMC3Utils” Button.

   Only if you can’t get previous step to open SMC app without error:
   Open with notepad file SMC3Utils.ini and set COMM_PORT= to proper COM port number from your Windows Device Manager (see 5.1) Each control box has a specific port number. Test one box at a time. Start/run SMC3Utils.exe. If you are getting error messages about the COM port communication, you haven’t set the port number properly in the previous step.
8. Set it to 'sine' click Motor 1 and Motor 2 and 3. Using Windows Snipping Tool do send us (DOF Reality Support) screen shots of the SMC Util screen charts for each motor.
9. It will also be helpful to include a short video clearly demonstrating the problem.

5.5. I have troubles installing SRS

SRS uses a variety of methods to read the telemetry from the game and some of those methods will trigger antivirus software. SRS is completely safe, use your antivirus software to allow an exception for SRS.This will typically solve the problem.

5.6. Simulator does not move in-game

Make sure the SRS application is open and running in the background.This connects the simulator to your gaming software. If you have already confirmed this, click the “Auto Install” button from within the SRS Game section. For some games, you will need the game settings following this guide: Quick Motion Tuning Guide : Sim Racing Studio

If you have completed all this, and your platform still doesn’t move, please Open a Ticket by contacting DOF Reality Support

5.7. Simulator used to work in the game, but stopped

This can happen if the connection is lost to the computer or Windows Defender (or other antivirus software) have deemed the software a threat. Windows Defender is notorious for this. Please investigate with your antivirus software. Usually an SRS reinstall helps or you can add an exception for SRS from within your antivirus software application.

Troubleshooting Sim Racing Studio

5.8. The motors make small adjustments all the time

This is because the motors always have power flowing through them, and are always in a ready state to be able to move the rig quickly without delay. The small movements of the motors will typically disappear when there is weight on the rig or it is in use.

5.9. The simulator behaves strangely while playing games

There are many reasons you may experience this behavior,but the most common reasons are:

- The simulator is not in balance.
- The simulator doesn’t have the right settings for you. (We supply generic settings, but they might not match your preferences, weight

distribution,or accessory setup).

- The rig might be too heavy.

6. Repairing the simulator

The simulator should under no circumstances be repaired by unauthorized personnel without consulting us first. Failing to comply may cause damage to equipment and/or injury to the personnel.

7. Technical Specifications

Motion Simulator for computer gaming

Brand: DOF Reality
Model: DOF REALITY H2/P2

Power input: 100-120/210-240 VAC, 50/60 Hz
Power Consumption: 500 Watt
Peak current: 3/1.5 A
Short-circuit rating: 30 A
IPnumber:1P190305.DR0W93

Total Weight: 40.000 kg

Made in Ukraine by: “DOF REALITY” LLC
Kyivska 7, Pustomyty, Lviv, 81100, Ukraine

EN 60204-1:2006/AC:2010, EN 60335-2-82:2003/A1:2008, EN 60335-1:2012+A11:2014; EN55014-1:2006+A1:2009+A2:2011; EN61000-3-2:2014; EN61000-3-3:2013. 2019

CE

http://dofreality.com/CE.pdf