

# SIMREP

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## ENGINEERING

### P9XX USER MANUAL V1.0



## Before you start unboxing

We would like to thank you for your purchase. With your purchase, we can keep developing more awesome Sim Racing products. This user manual will provide you with the information needed, on how to set up your P9XX Sim Racing Wheel. If you have any questions, or need help setting up your wheel, please contact customer support at [info@simrep-engineering.com](mailto:info@simrep-engineering.com).

## About the P9XX Sim Racing Steering Wheel

The P9XX Sim Racing Wheel is non like any other. The P9XX is build modular, that means we have designed it in a way, that you can easily disassemble the wheel at home. We have done this for multiple reasons.

- **Future upgrades**
- **Easy repairs**
- **Adding third party components (like wheel hubs)**

We firmly believe in product repairs, instead of buying a new one. The P9XX Sim Racing Wheel comes with a standard 2 year of warranty. After the warranty has expired, new replacement parts can be obtained through our customer support. The customer can choose to install the new parts at home, or ship it to us for repairs. This will ensure that the P9XX wheel will keep its second hand value, as worn out or broken parts, due to extensive usage, can easily be replaced.

We hope you will enjoy using the P9XX Sim Racing Wheel. If you do, please leave a Google Review and tag us on social media!

[Google](#)

[Instagram](#)

[Facebook](#)

[TikTok](#)

## Packaging contents

- 1x Quick Start Guide
- 1x P9XX Sim Racing Wheel
- 1x Powered USB2.0 hub with M8 T-slot nuts
- 1x Power Adapter (Including selected EU, UK, US or AU grounded socket plug)
- 1x Paddle Module
- 1x Coil cable (connects wheel to USB hub)
- 2x Sheet Button sticker
- 2x Sheet rotary knob sticker
- 1x Sheet rotary indicator dome sticker
- 1x Toolkit (Rotary nut wrench, hex socket wrench metric 1.5mm, 2mm, 2,5mm 3mm, 4mm, 5mm)
- 1x Microfiber glass cloth

### Optional packaging content

- 1x Fanatec Podium Hub bolt kit containing 6 M5 captive bolts
- 1x 50mm long wheel hub with 6x M5 threads and a 70mm bolt diameter
- 1x Paddle Module L+R



## WARNINGS

### SEIZURES

This product uses bright LEDs that may potentially trigger seizures for people with photosensitive epilepsy.

### NOT FOR ROAD USE

This product is made for simulation purposed only. Do not use on public roads.

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## 1. Setting up the wheel mechanically



TIP

We advise to wait with the installation of the button stickers, until you have decided the final position of the buttons. Button caps can also be removed and replaced at other locations in case the stickers are already applied.

### 1.1. Paddle Module position adjustment



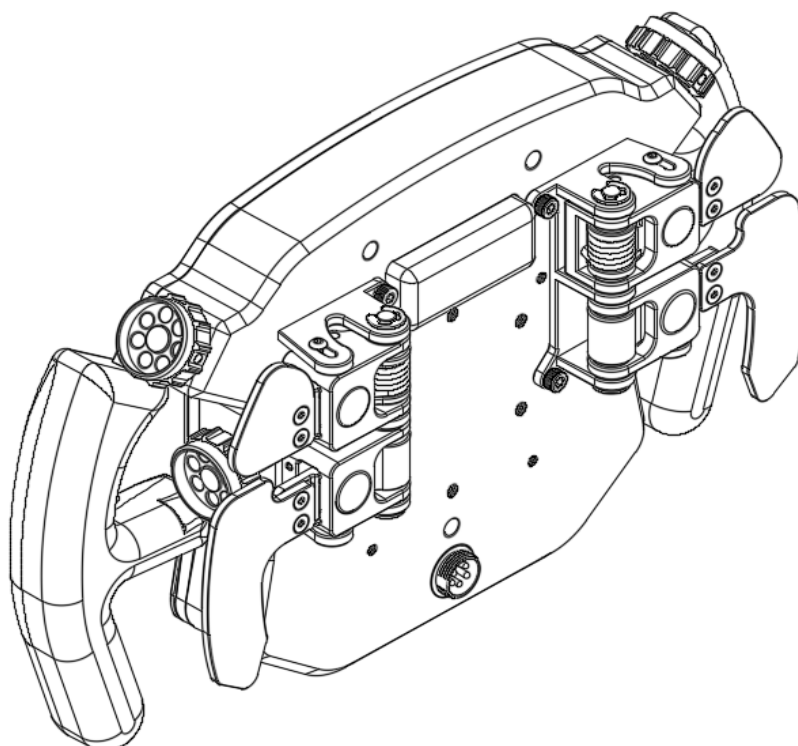
5-10 min

#### Tools used in these steps

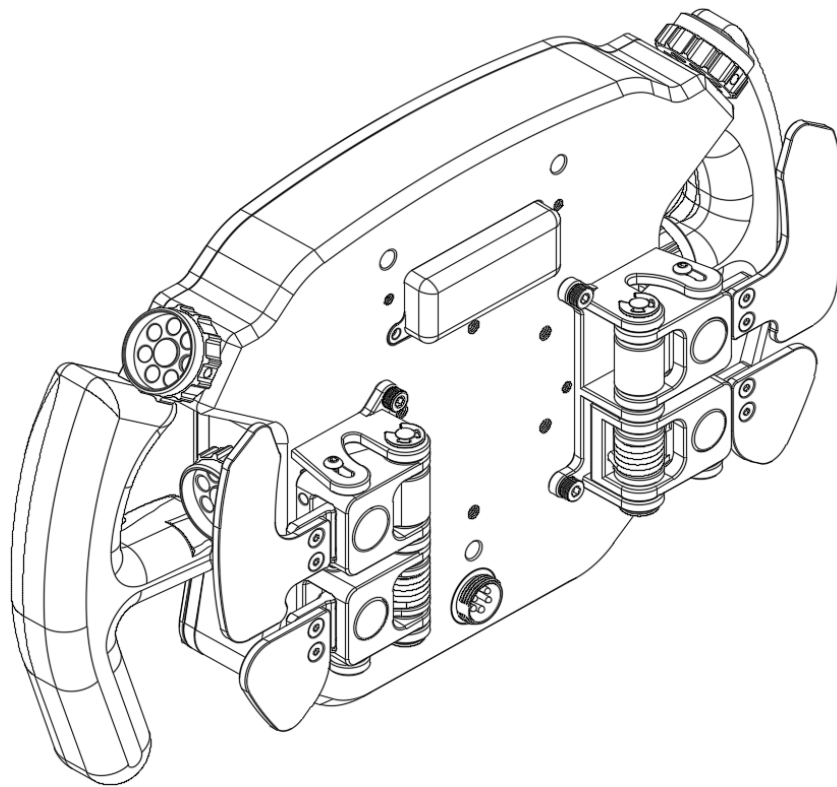
- 2.5mm Hex socket wrench
- 3.0mm Hex socket wrench

The P9XX comes with the standard Paddle Module top position, where the clutches are located above the shifters, at the top of the wheel. For personal preference, the Paddle Module can be exchanged from the left to right, this will move the clutch below the shifter at the bottom of the wheel.

#### Top clutch position (standard)

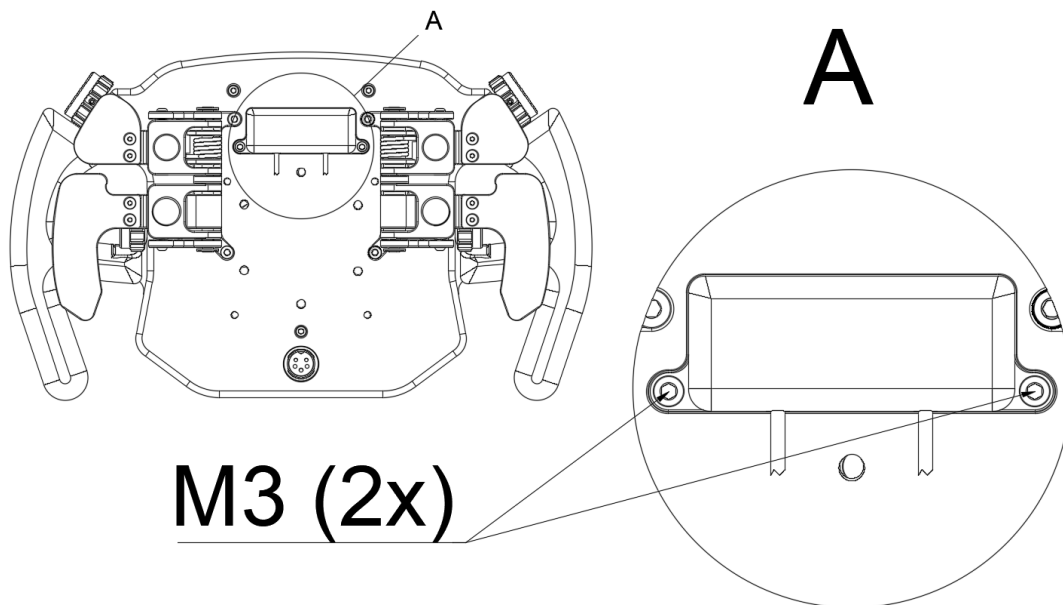


## Bottom clutch position (user preference)



### STEP 1: Remove wire cap

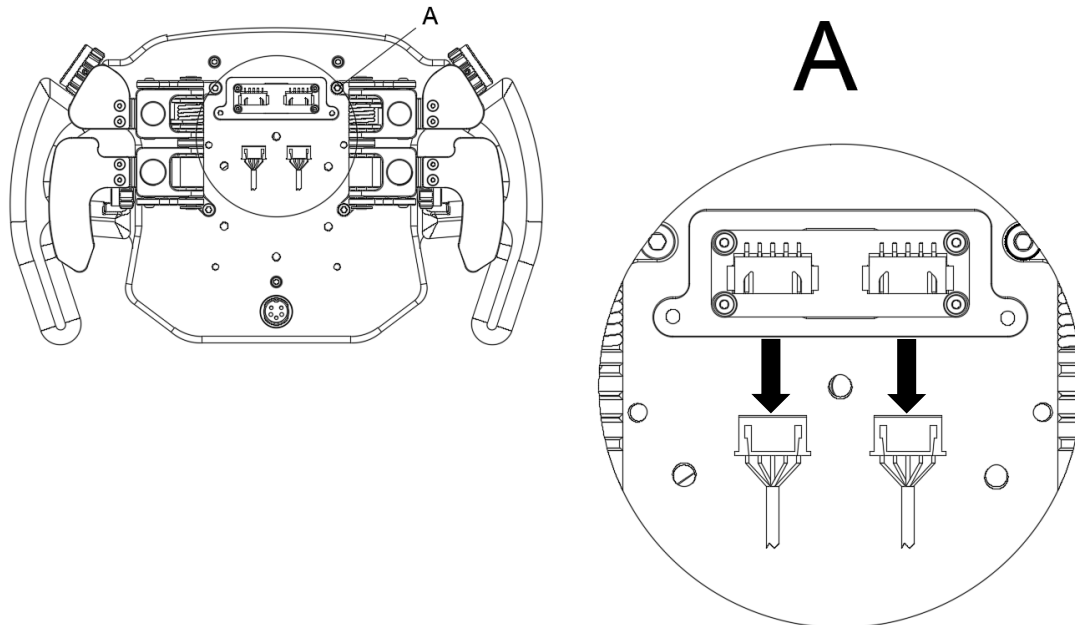
Use the 2.5mm hex socket wrench to remove the M3 cap bolts (2x).



## STEP 2: Unplug connectors

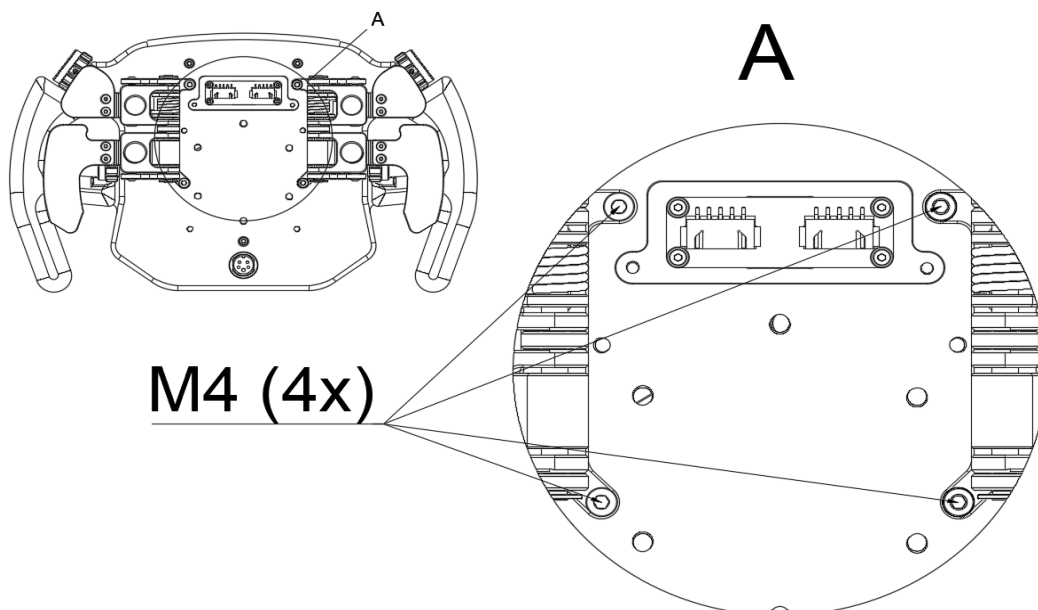
Disconnect the left and right Paddle Module connector by pulling the wires gently.

 **WARNING: Pulling the cable to hard can lead to damage.**



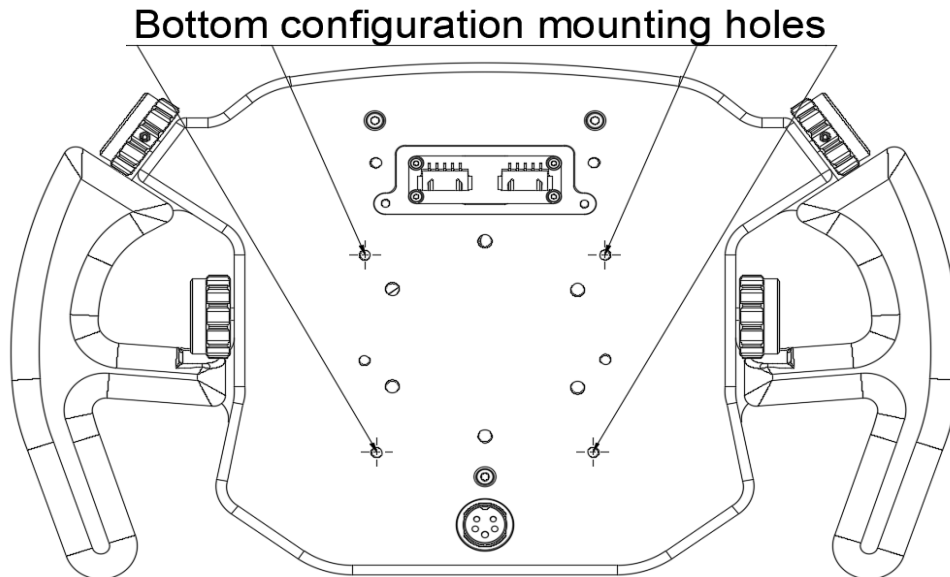
## STEP 3: Remove Paddle Module

Use the 3mm hex socket wrench to remove the M4 Paddle Module bolts (4X).



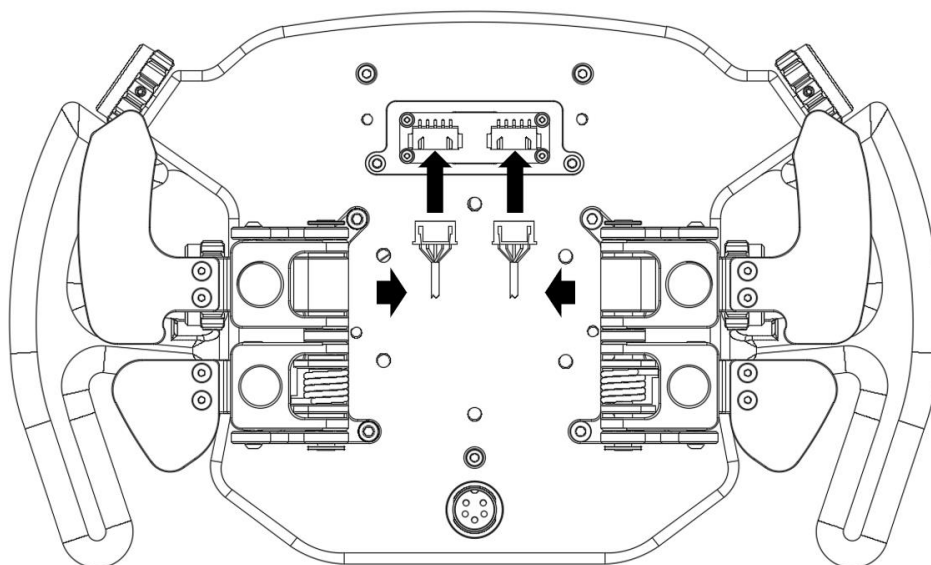
## STEP 4: Installing the Paddle Module at the bottom

Install the paddles upside down from left to right in the designated mounting holes.




## STEP 5: Connecting the cables and cap

Repeat step 1 and 2 in a reversed order. When connecting the Paddle Module, it's important to know, that the left/right Paddle Module PCB's connector always powers the Paddle Module that is connected to that specific side, regardless of its up- or downward position.





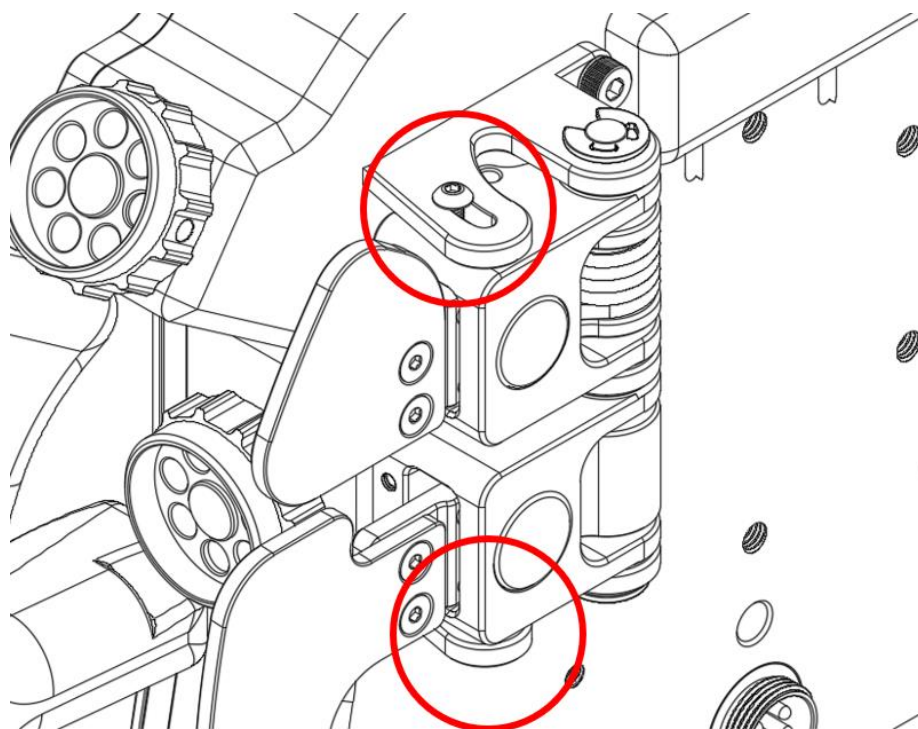
## 1.2. Adjusting Pedal Module height

 5-10 min

### Tools used in these steps

- 2.5 mm hex socket wrench

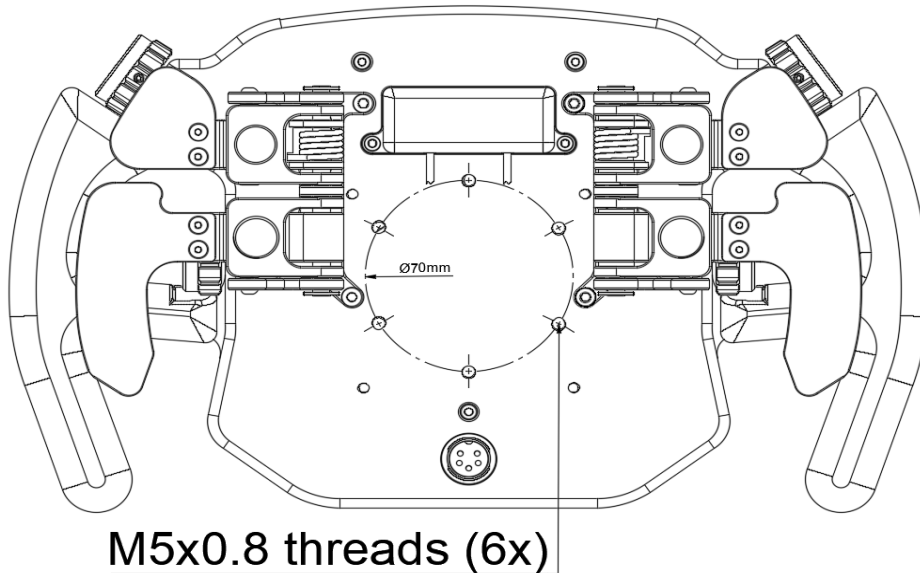
The clutch and shifter brackets can be adjusted to height separately according to the users preference. Use the 2.5mm hex socket wrench to loosen the adjustment bolts and move the clutch/shifter bracket in to the desired position before fastening the bolts again.



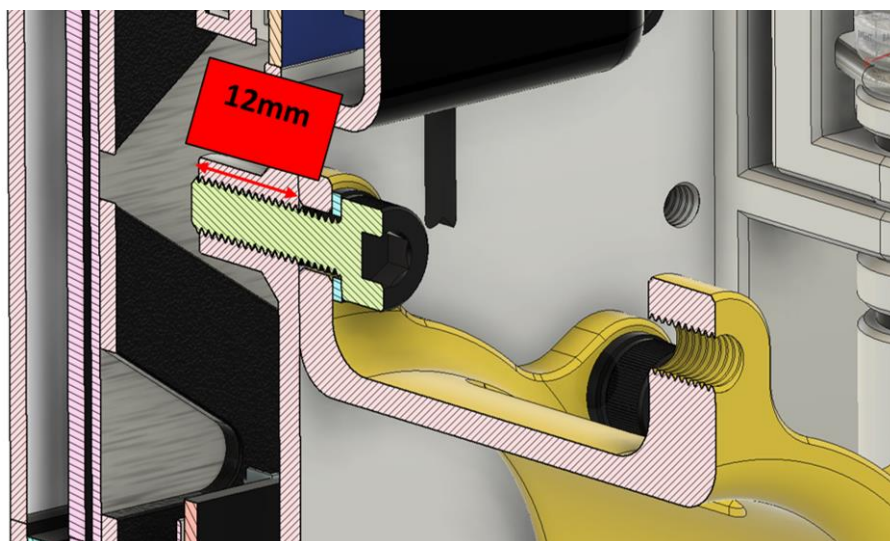
### 1.3. Wheel hub installation

The P9XX Sim Racing Wheel can be mounted to various types of wheel hubs. Most hubs will require mounting from the outside. Some hubs like the Fanatec Podium Hub requires mounting from the inside.

#### Wheel Hub connection



**⚠ WARNING:** When mounting a third party wheel hub, the bolts connecting the hub to the P9XX Sim Racing Wheel, cannot exceed a length of 12mm + wheel hub flange thickness. Example: The wheel hub flange has a thickness of 4mm, the total length of the M5 threads bolt cannot exceed 16mm. Using longer bolts can damage the screen.



### 1.3.1. Standard wheel hubs (external mounting)

 3-5 min

 **Tools used in these steps**

- 4 mm hex socket wrench

 **Parts used in these steps**

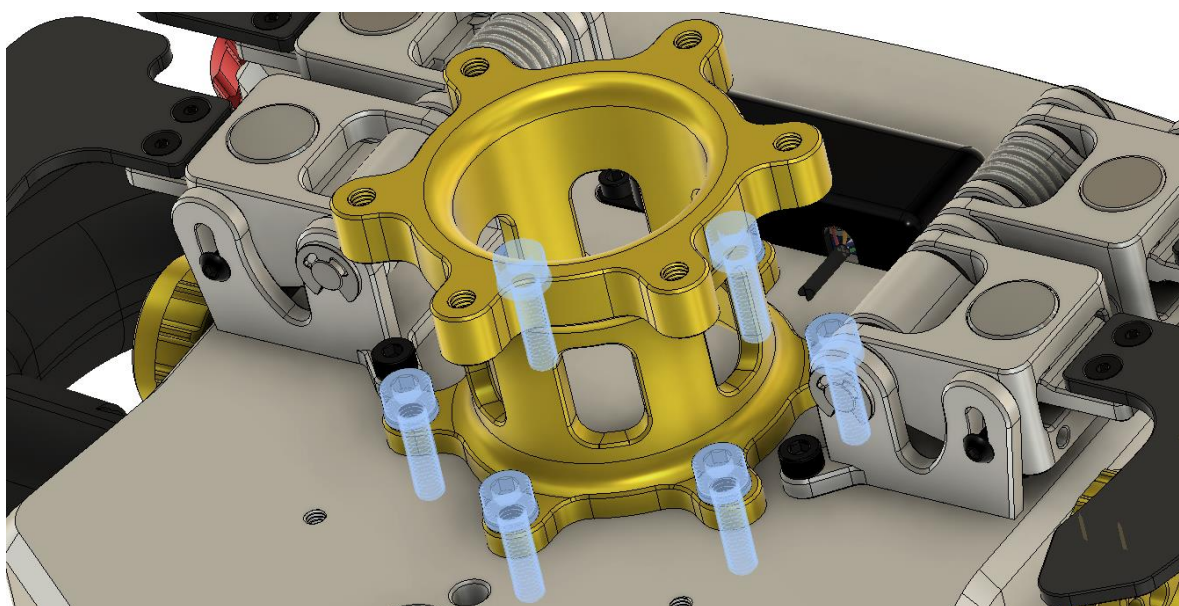
- 6x M5 washer
- 6x M5x16mm hex bolt (with pre-applied Loctite®)



Check if the hub bolts aren't coming loose after extensive usage, every once in a while. This can prevent damage to the wheel and hub.

#### STEP 1: Mounting the wheel hub from the outside

Place the M5 washer on the M5 bolt (6x). Align the bolt holes of the wheel hub with the threads on the wheel housing. Screw in the M5 bolts with washer by hand. Tighten crosswise with the 4 mm hex socket wrench.



## 1.3.2. Fanatec® Podium Hub (internal mounting)

 15-20 min

### Tools used in these steps

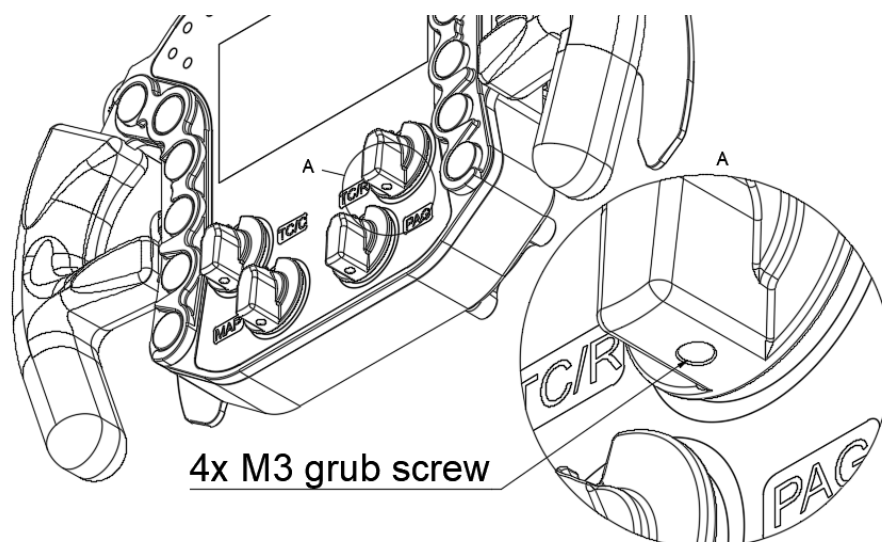
- 1.5 mm hex socket wrench
- 2.0 mm hex socket wrench
- 2.5 mm hex socket wrench
- 3.0 mm hex socket wrench
- 4.0 mm hex socket wrench
- Rotary nut wrench

### Parts used in these steps

- 6x M5 washer
- 6x M5x16mm captive bolt (with pre-applied Loctite®)

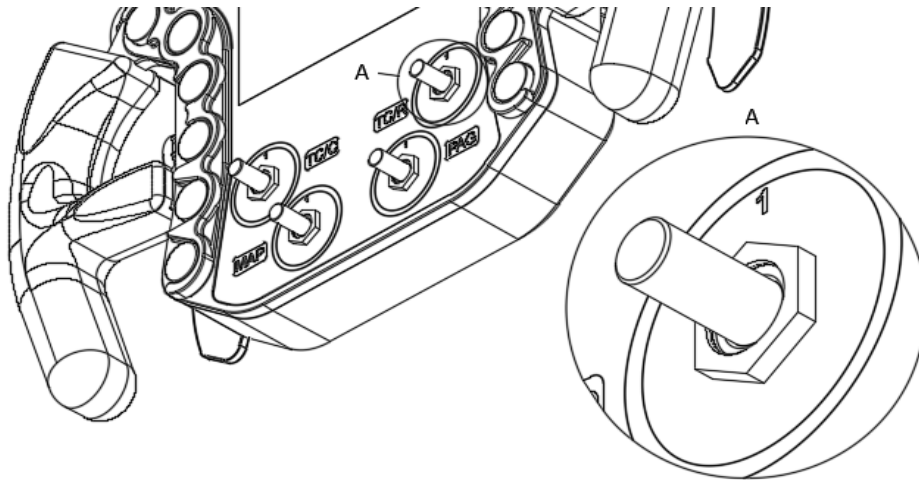
## STEP 1: Remove front rotary knobs

Use the 1.5mm hex socket wrench to remove the M3 stud bolts (4x) located at the bottom of the rotary knobs.



## STEP 2: Remove rotary nuts

Remove the rotary nuts with the supplied rotary nut wrench (4x).

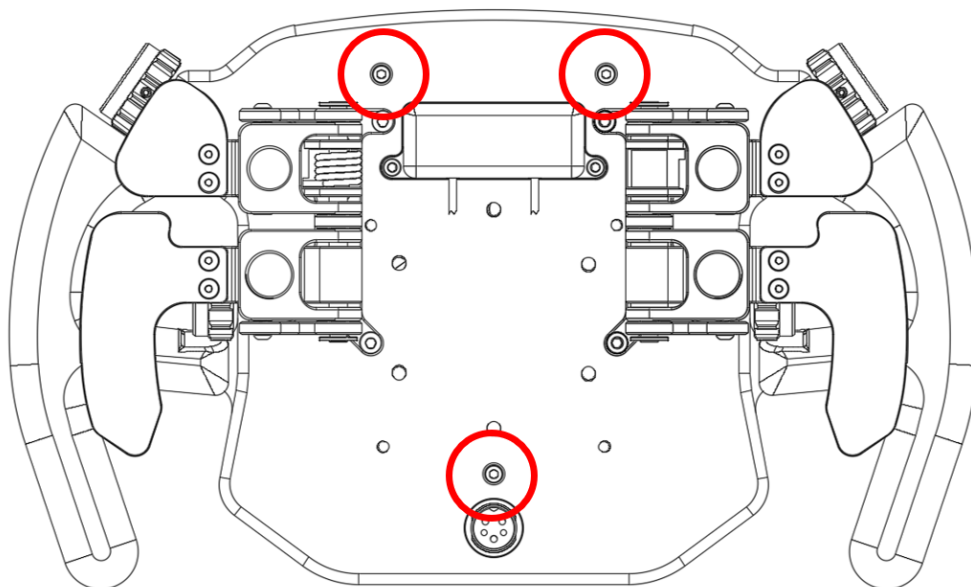


## STEP 3: Remove front glass



**WARNING:** Before unscrewing the bolts, make sure to support the glass. This can be done by holding it by hand, or laying the wheel frontside down on a flat surface like table with a towel underneath. Improper support or hard drops can shatter the front glass.

Use the 2.5mm hex wrench to remove the front glass bolts at the back of the wheel (3x).

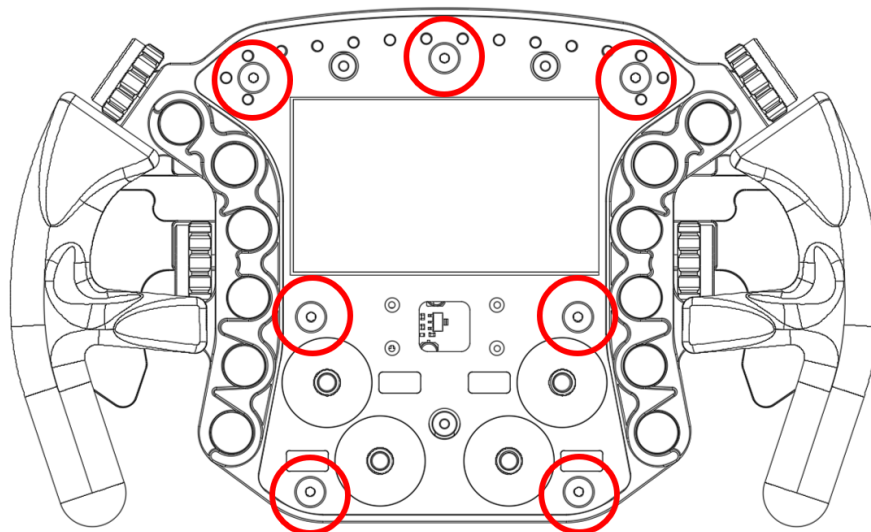


## STEP 4: Remove front steering plate



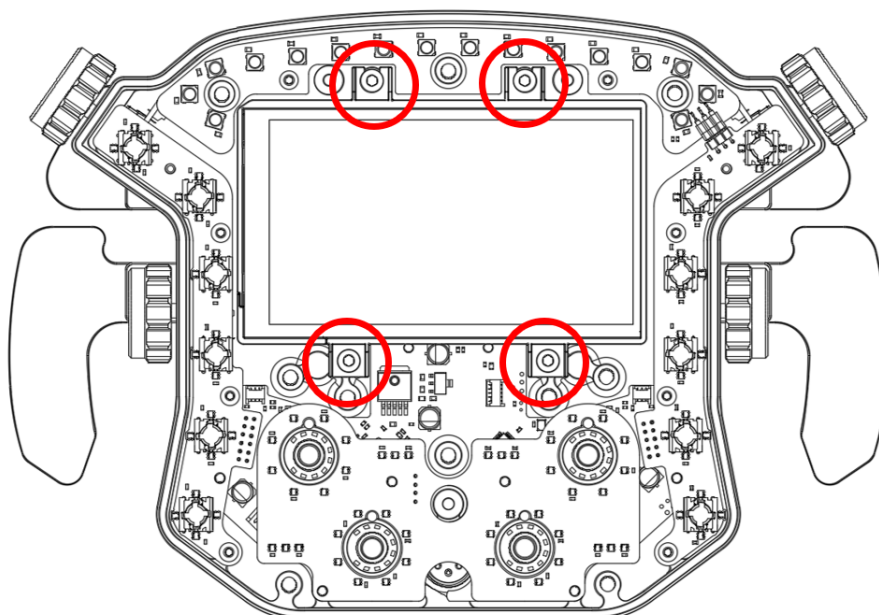
Before removing the front plate, make a picture of the button cap locations for easy reassembling.

Use the 3mm hex socket wrench to remove the front plate bolts (7x), and gently pull the front plate up, allowing the button caps to come off.



## STEP 5: Remove VoCore screen

Use the 3mm hex socket wrench to loosen the top bolts (2x) 3 turns and remove the lower bolts entirely (2x). Disconnect the screen connector from the main PCB.

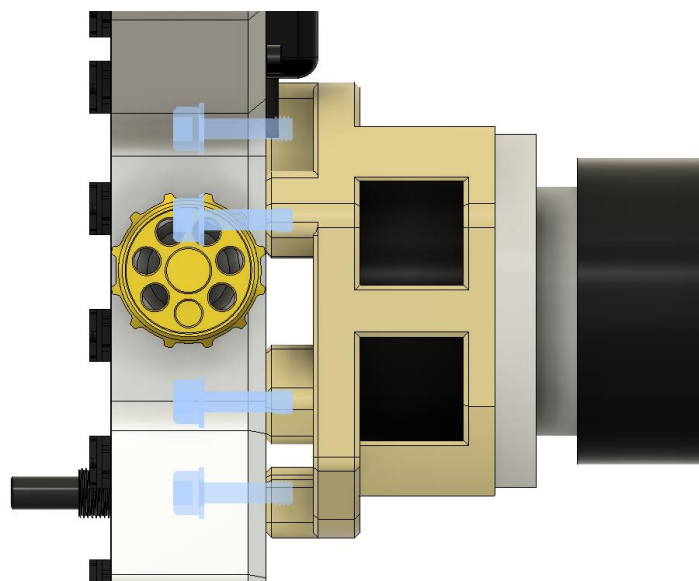
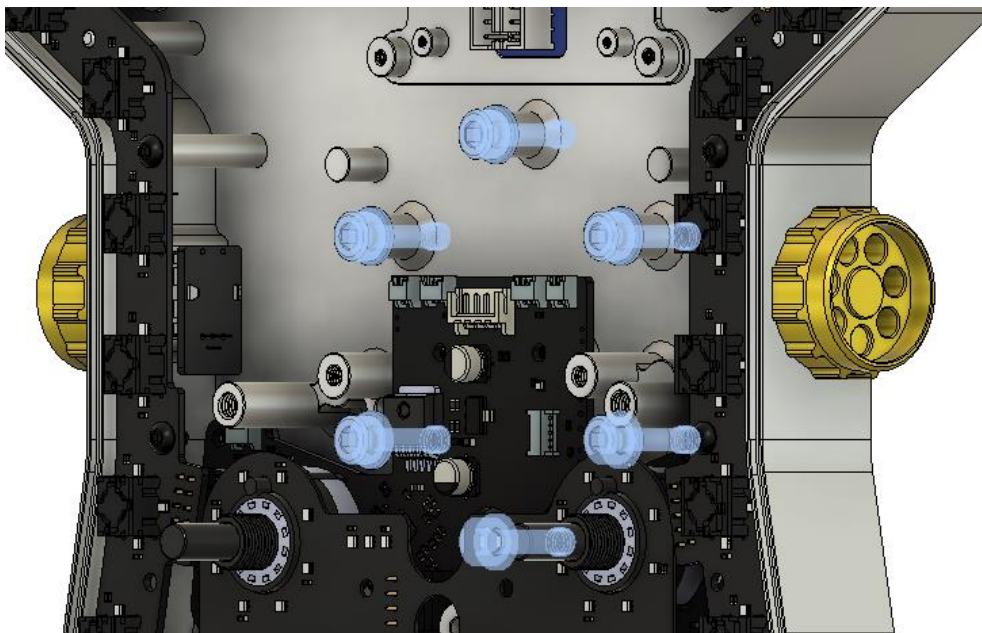


## STEP 5: Mounting the wheel hub from the inside



**WARNING: Overtightening the bolts can lead to damaged threads.**

Use the “P9XX Fanatec Wheel Hub Bolt Kit” for installing the Fanatec Wheel Hub to the P9XX wheel. Install the bolts including washer by hand, screwing them from the inside until the threads of the bolt exit the back of the P9XX enclosure. Place the Fanatec Wheel Hub against the back of the thread ends and screw them in by hand. Use the 4mm hex socket wrench to tighten the bolts. The bolts have a pre-applied mid-strength thread locker applied. If the bolts are disassembled and reassembled, new thread locker needs to be applied. We advise a medium strength thread locker.



## STEP 6: Reassembling the wheel

Reassemble the wheel by following the steps in a reverse order.



**TIP:** When reinstalling the button caps, lay them in the right orientation and gently push down until it snaps. If the caps won't snap, place a finger on top and gently rotate the caps until they snap into place.

## 2. Connecting the wheel to the computer



10-15 min



**Tools used in these steps**

- 5 mm hex socket wrench



**Parts used in these steps**

- 1x Power adapter
- 1x Power plug
- 2x M8 bolt
- 2x T-slot nut
- 1x Coil cable

## STEP 1: Mount P9XX USB2.0 hub

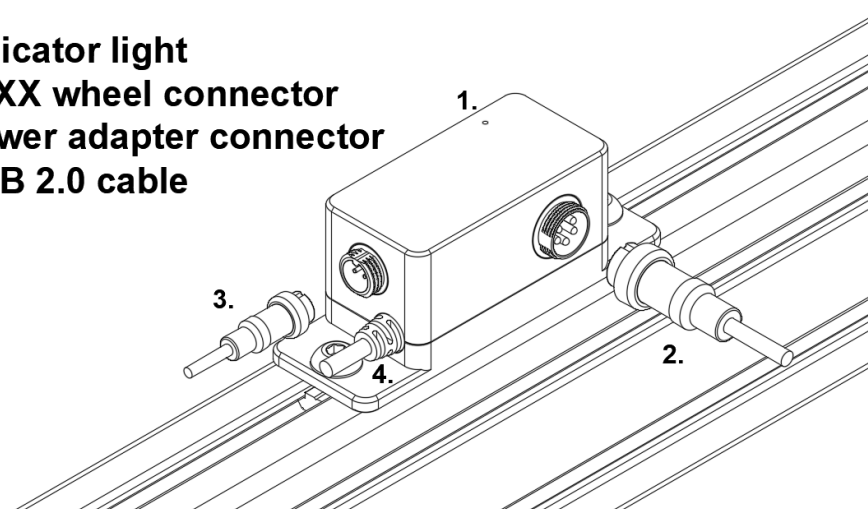
Mount the P9XX Powered USB 2.0 hub to your rig using the supplied T-slot nuts and M8 bolts. The T-slot nut can be inserted straight into the aluminum profiles by turning them 90 degree and snapping them in to place. It's not required for your profiles to have open ends.



## STEP 2: Connect the P9XX USB2.0 hub

Connect the power adapter **(3)** to the USB hub and connect the power cord to a grounded wall outlet. Plug the USB connector **(4)** to your PC. Use the coil cable **(2)** to connect the P9XX wheel to the USB hub. We advise to place the ferrite bead at the USB hub side (Round cylinder at the end of the coil cable).

1. Indicator light
2. P9XX wheel connector
3. Power adapter connector
4. USB 2.0 cable



Indicator light out: No USB connection

Indicator light blue: USB connection

Indicator light purple: USB and power connection (ready to operate)

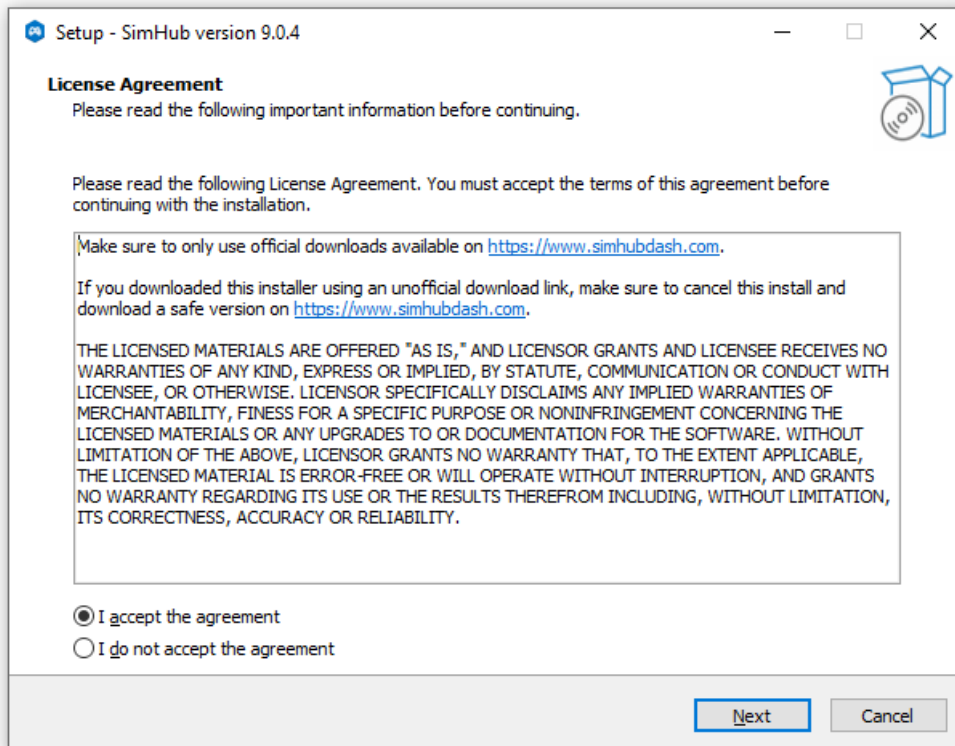
## 3. Software installation

### 3.1. SimHub

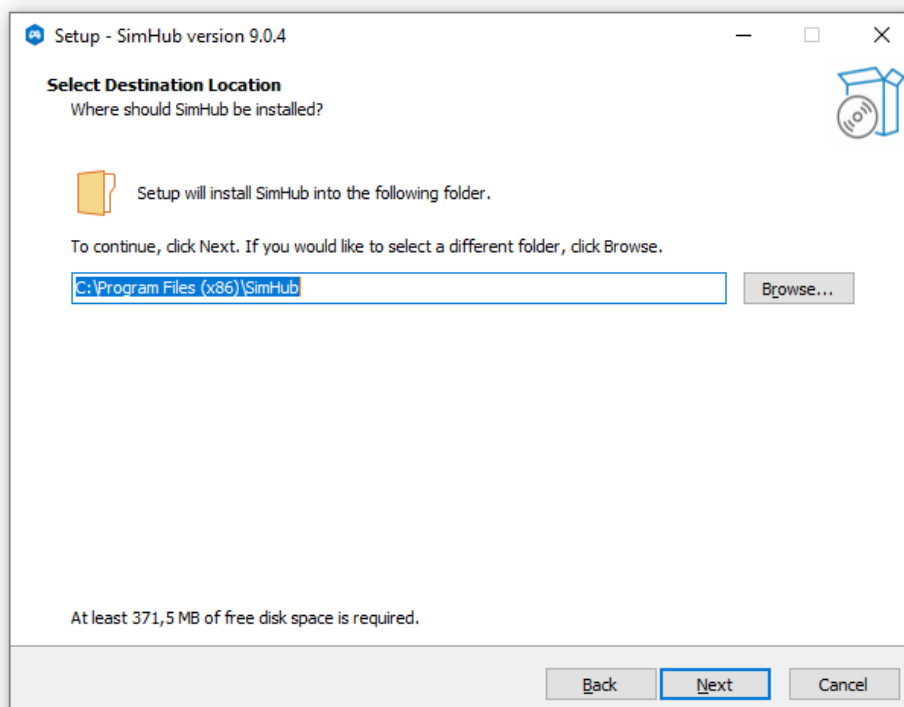
SimHub can be used to control the LEDs and VoCore display. Download the latest version of SimHub from <https://www.simhubdash.com/download-2/>. Installation instructions may be slightly different depending on the SimHub software version.

### 3.1.1. Installing SimHub software

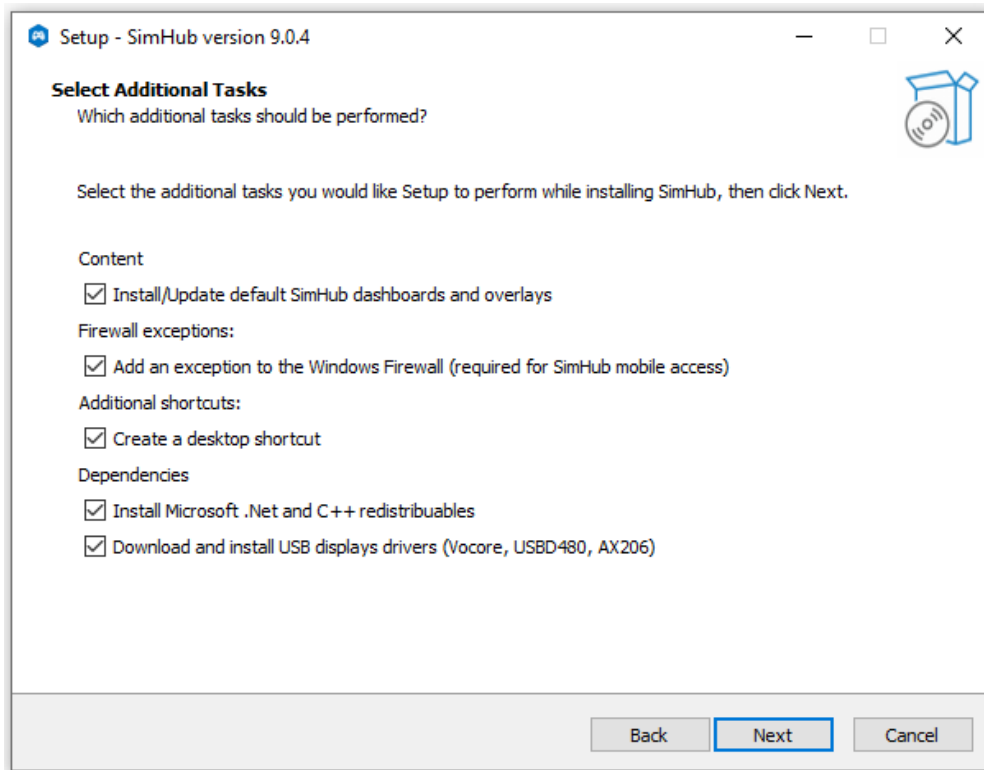
Accept the agreement and press “Next”.



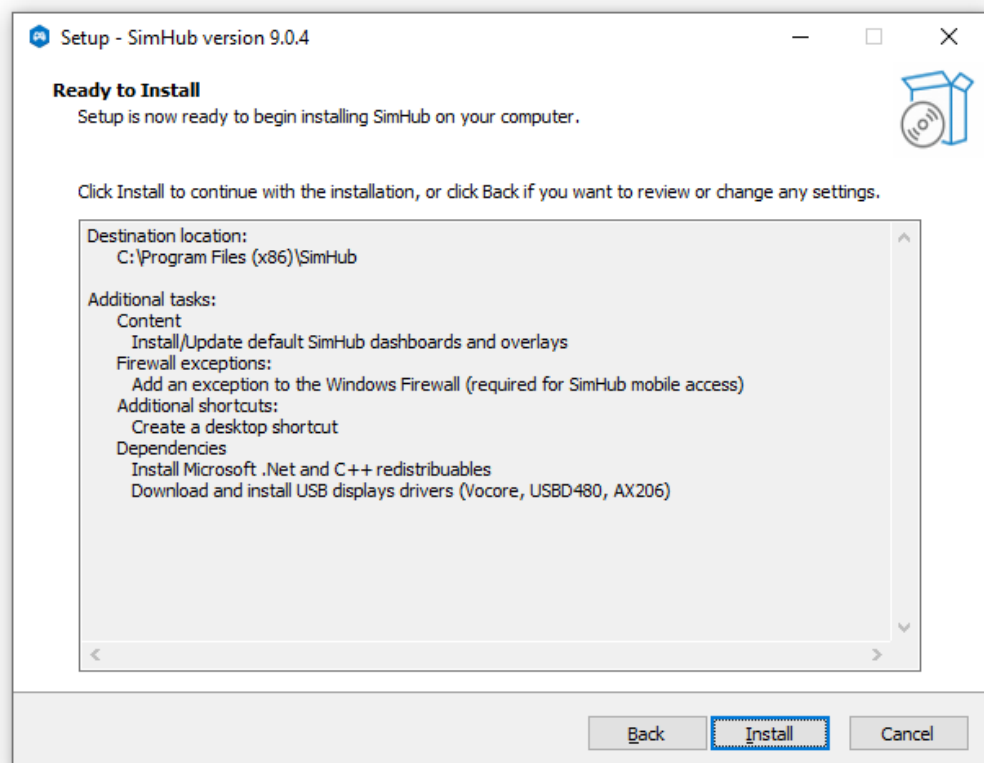
Specify where you want to install the software and press “Next”.



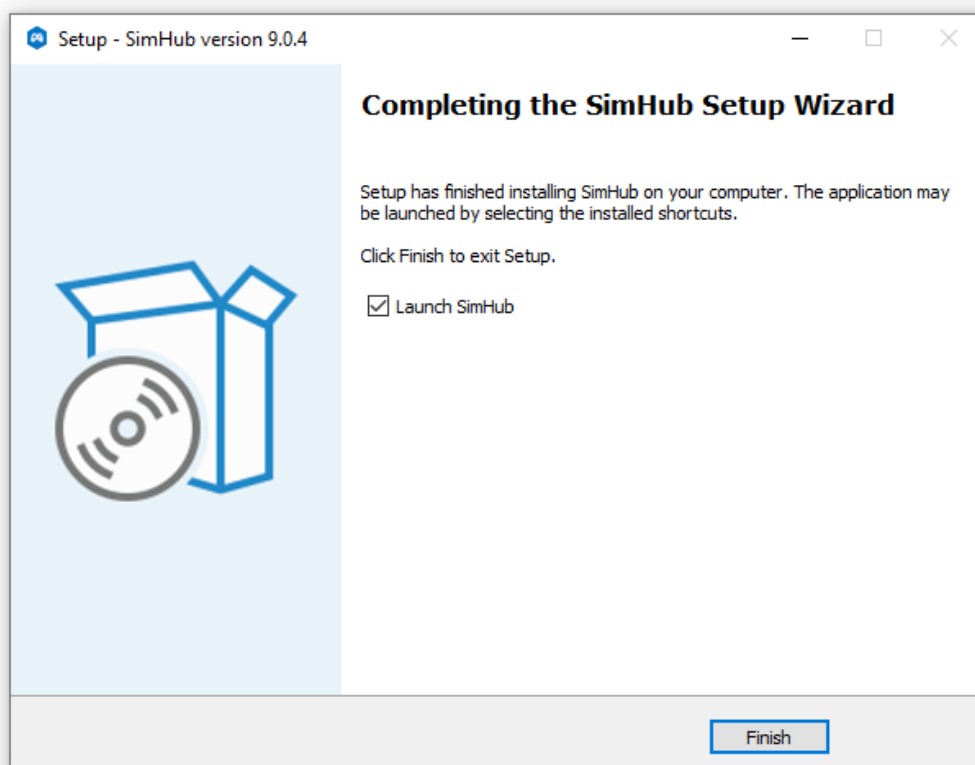
Check all boxes and press “Next”. Make sure the “Download and install USB displays drivers (Vocore, USB480, AX206)” box I checked, otherwise the display won’t work.



Press “Install”. The installation may take up to 5 minutes.

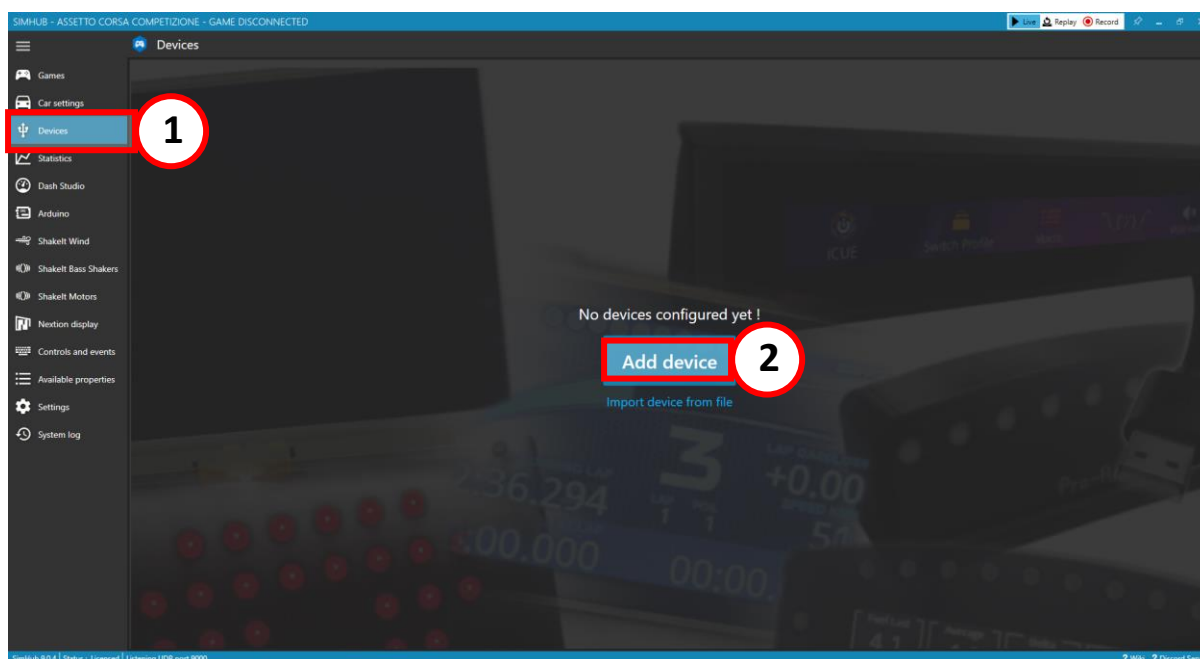


After the installation press “Finish”.

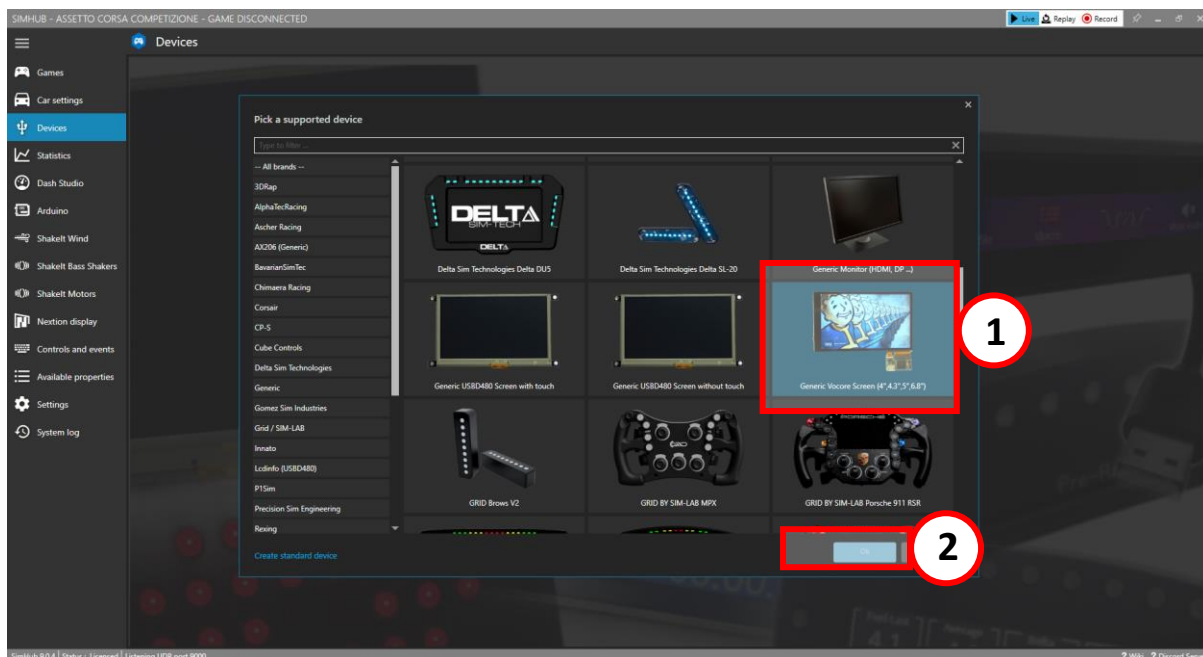


### 3.1.2. SimHub configuration

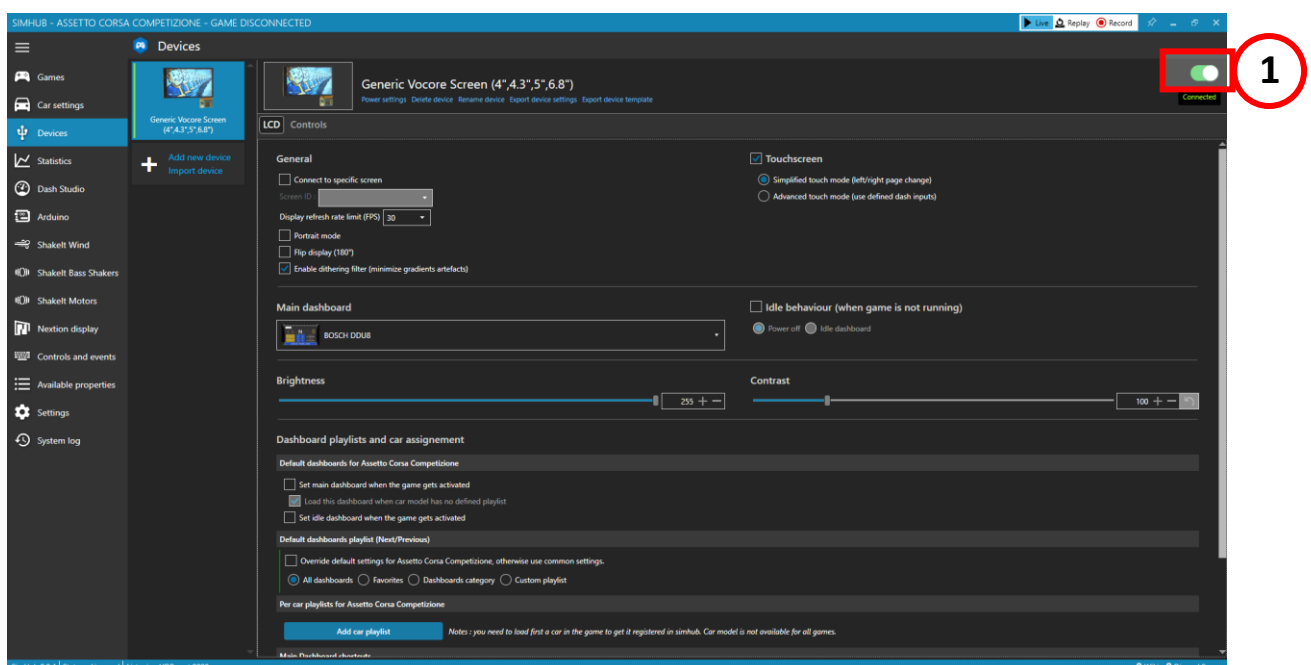
Click on “Devices” (1) and “Add device”(2).



Click on “Generic Vocore Screen (1) (4”, 4.3”, 5”, 6.8”)” and click “Ok” (2).



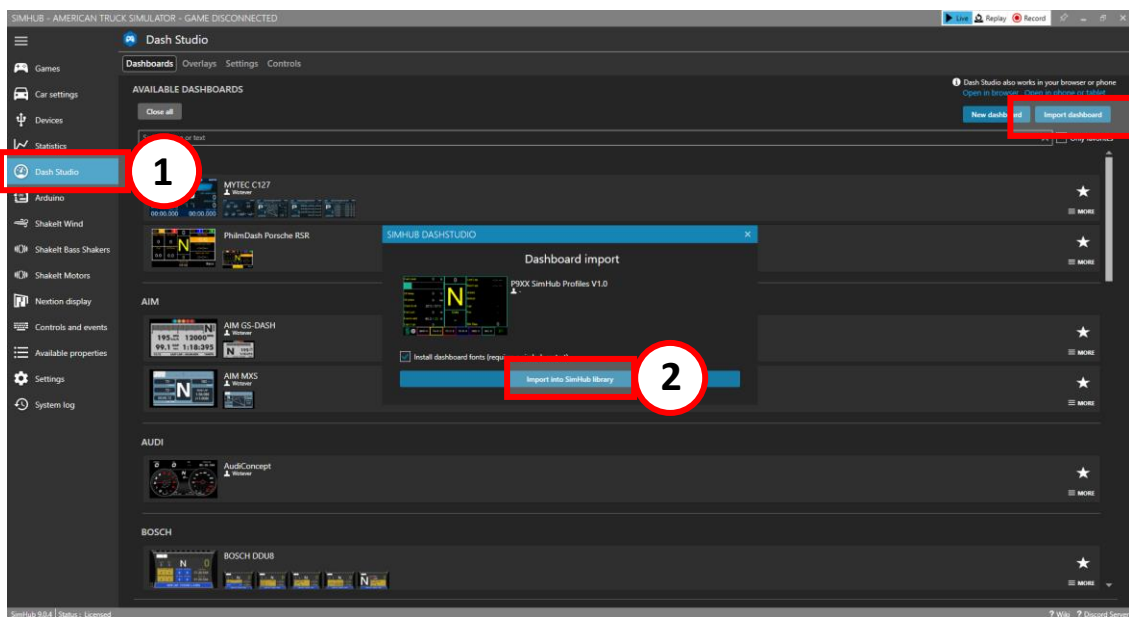
Your Vocore screen should now display as connected (1). If this is not the case, we advise you to disconnect the USB cable from your computer and reconnect. If that doesn't work, try to reinstall SimHub.



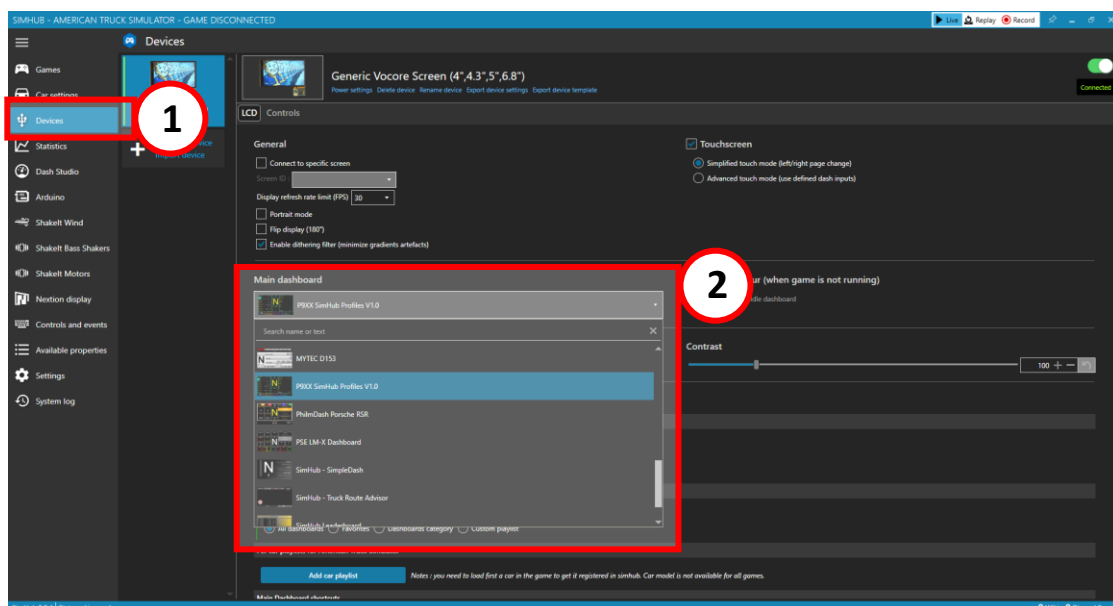
### 3.1.3. Loading SimHub profiles

Download the “P9XX SimHub Profiles V1.0” file (or newer version) from our downloads page. Unzip the file to your hard drive. <https://simrep-engineering.com/pages/downloads>

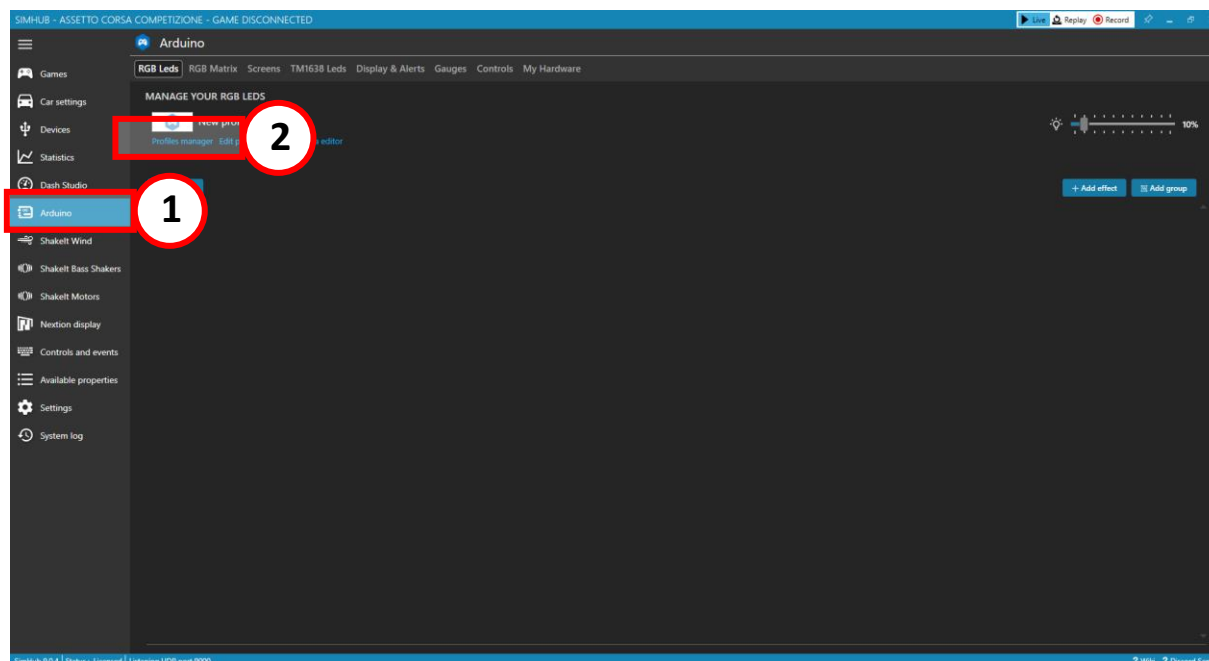
Go to “Dash Studio” **(1)** and click on “Import Dashboard” **(2)**. Open the directory where you have extracted the downloaded files and import file “P9XX SimHub Dash V1.0” **(3)** (or newer version). SimHub restart may be required.



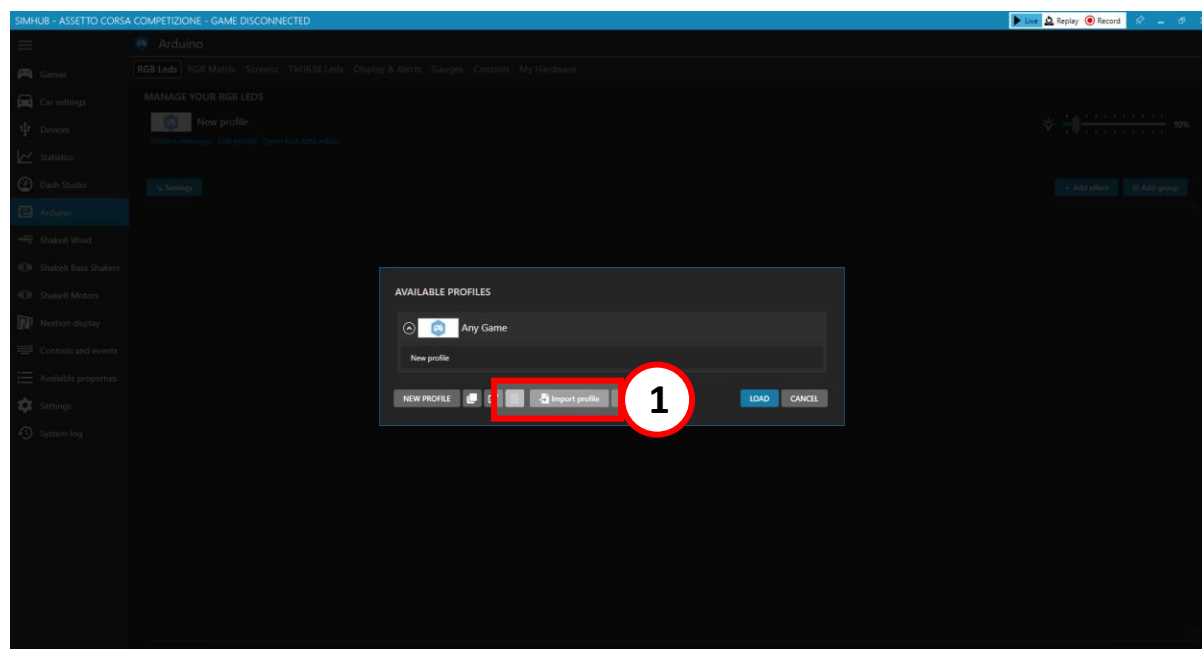
Go back to the “Devices” **(1)** tab and select the “P9XX SimHub Dash V1.0” in the “Main dashboard” **(2)** dropdown.



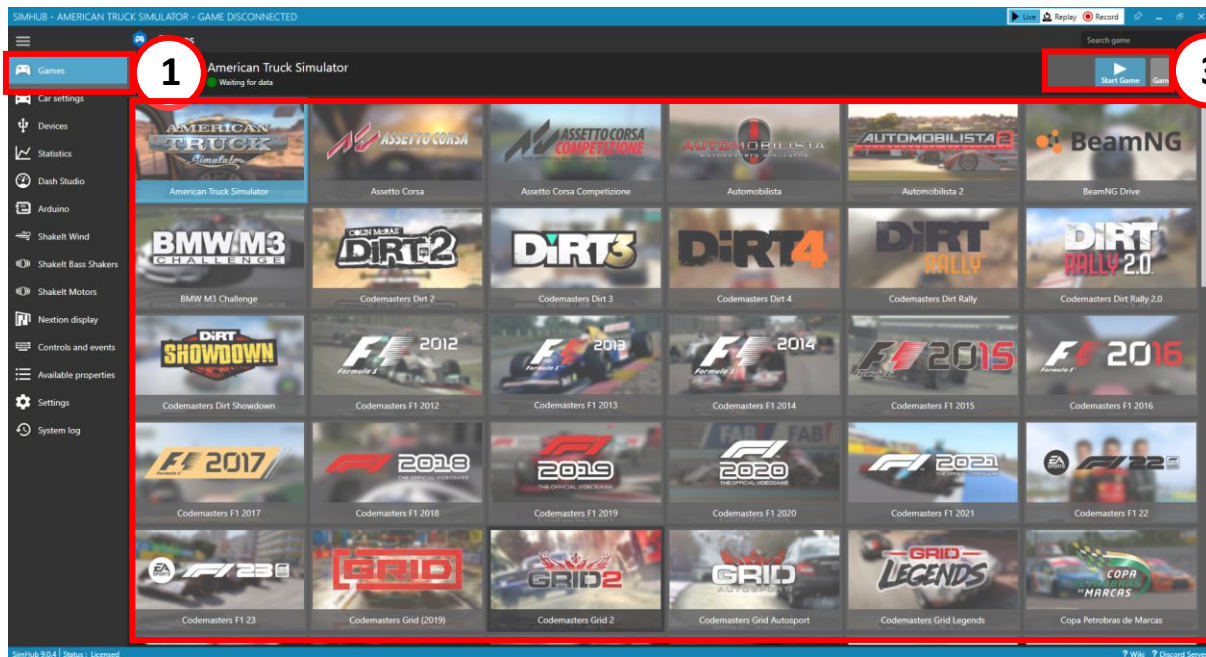
Go to the “Arduino” (1) Tab and click on “Profiles manager”( 2).



Click on “Import profile” (1). Open the directory where you have extracted the downloaded files and import file “P9XX SimHub LEDs profile V1.0” (or newer version).



Go to the “Games” tab **(1)** , select your game **(2)** and click “Start Game” **(3)**

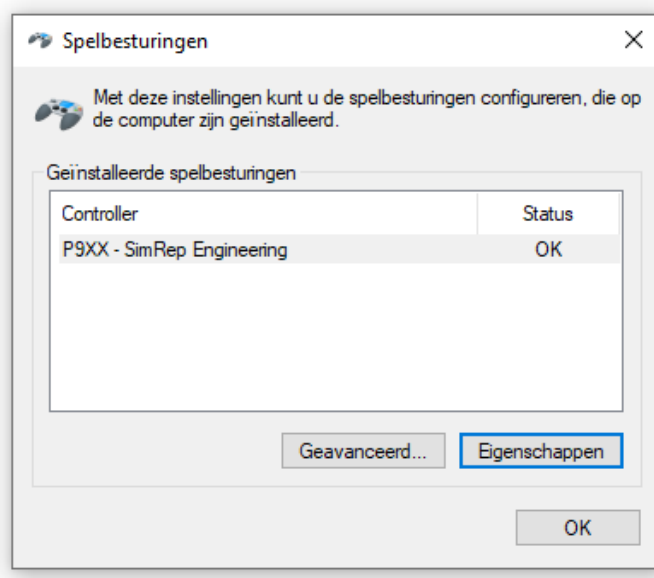




## 4. P9XX functions

The P9XX Sim Wheel can be configured in different ways depending on the users preference. You can open the Windows game controller by typing “joy.cpl” in the Windows search bar. It allows you to view the actual output of the steering wheel. Alternatively you can also go to this website:

<https://hardwaretester.com/gamepad>

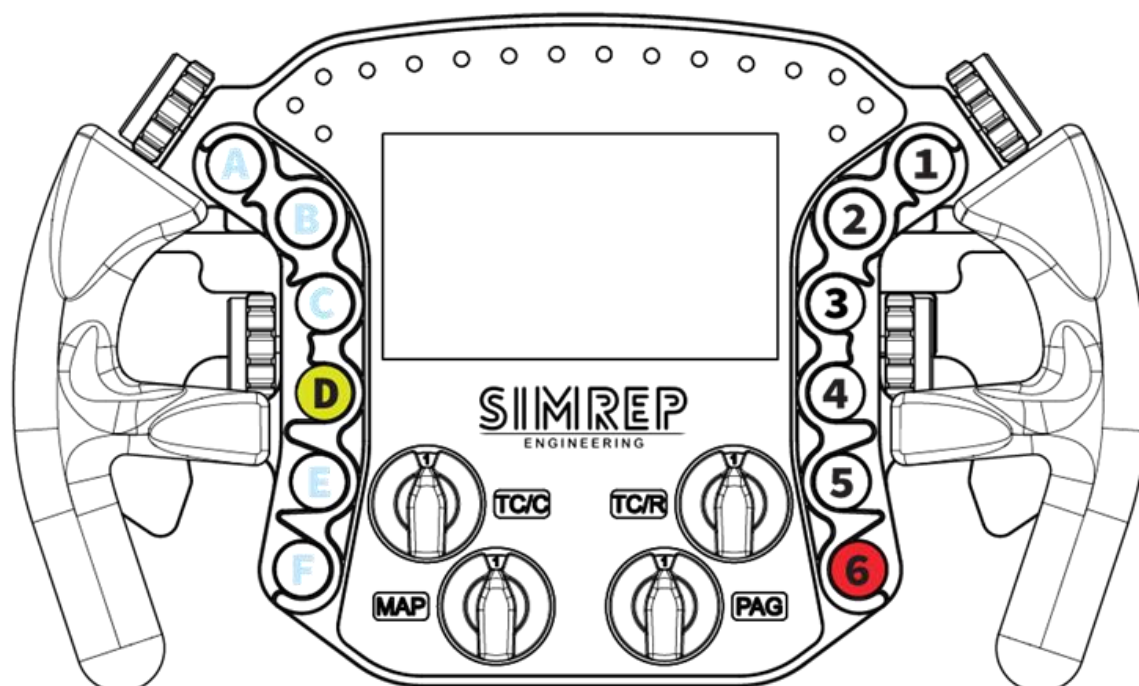


**IMPORTANT NOTE:** it only shows up to 31 buttons. The wheel outputs more, depending on the setting. These buttons cannot be viewed. Of course they can be used in-game.

## 4.1. Reset configuration

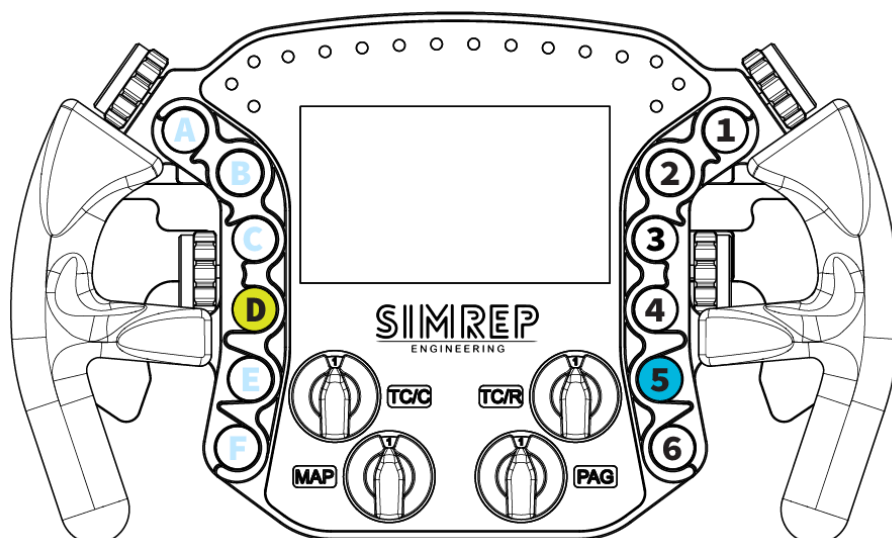
**!** **IMPORTANT NOTE:** When you have installed the wheel for the very first time, it's important to reset the wheel using the D-6 combo in order to calibrate the clutches.

All the settings can be reset to default by pressing the button combo **D-6** (4<sup>th</sup> button on the left panel and the 6<sup>th</sup> button on the right panel). All custom settings will be lost, including the clutch calibration.



## 4.2. Save configuration

To save your output settings the button combo **D-5** needs to be pressed. When you power off the wheel all your settings will be remembered and are loaded automatically when you power the wheel back on.



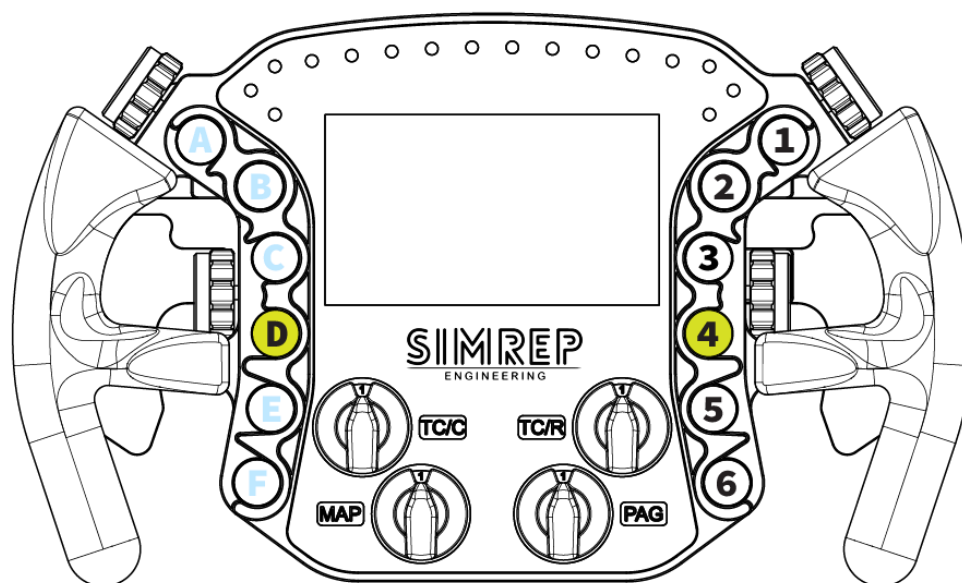
### 4.3. Clutch calibration

To calibrate the clutch you need to hold down the buttons **D-4**, while these are pressed you have to press both clutches a couple of times. This way the wheel will know to range of the clutch. When you release D-4 the clutch is calibrated.

When you want to redo the calibration, you can press the reset combo D-6, and redo this step.



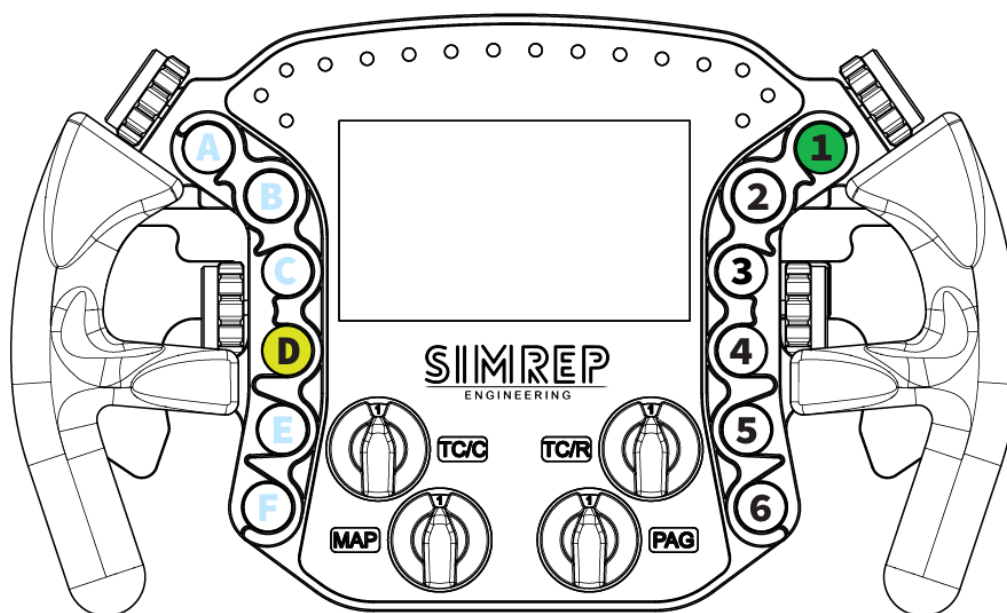
**IMPORTANT NOTE:** We recommend to recalibrate the clutch at least once a month for optimal accuracy.



## 4.4. Single clutch output

For the single clutch there is an output channel for the left clutch and a sperate output for the right clutch. This can be preferred when you want a simple clutch setting (left/right clutch with equal bite points ). The left and right clutch can also be used as a gas and brake pedal in the single clutch output mode.

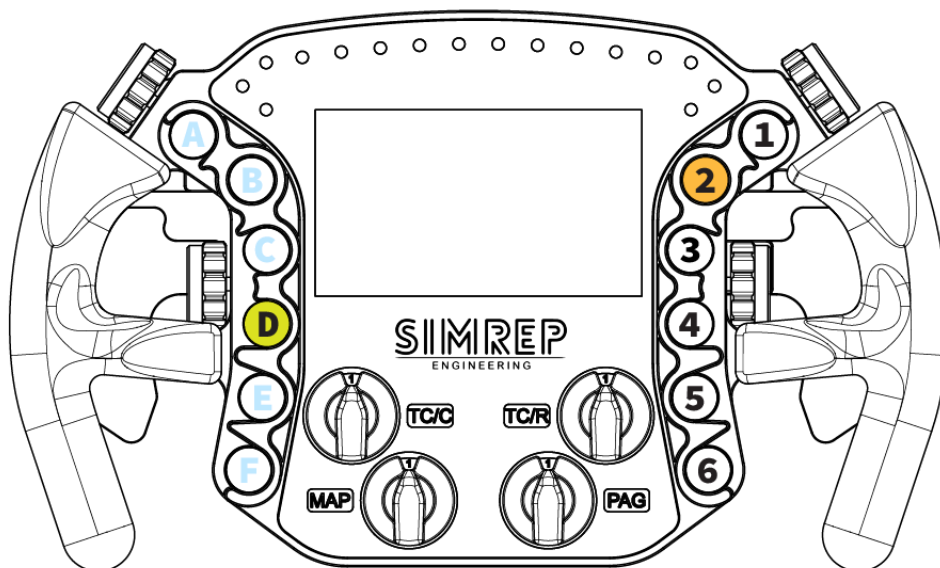
To set the output (back) to “Single Clutch” press the buttons **D-1**.



## 4.5. Dual clutch output

For a dual clutch output, both clutches output on the same channel. One clutch will only go to 50% (by default, bite point can be customized) and the other the full 100% range. This allows you to set one clutch until the point where the car just started rolling, the other clutch can then go to the complete 100%.

To set a dual clutch output the button combo **D-2** needs to be pressed.

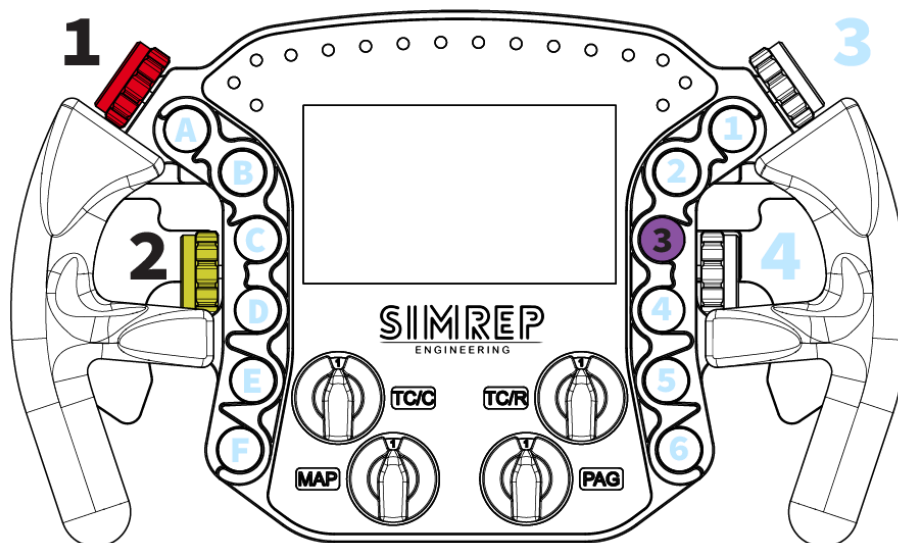


## 4.6. Clutch bite point setting

The clutch bite point can only be adjusted when the “Dual clutch output” is selected.

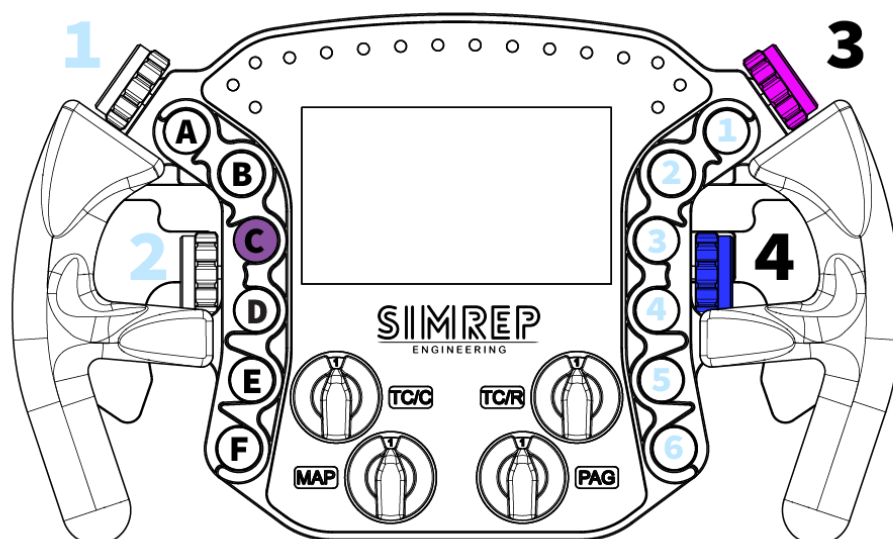
### 4.6.1. Right clutch bite point

The bite point of the right clutch (default 50%) can be adjusted by pressing and holding the button **3** and then using the left rotaries to adjust. You can use the top rotary (**1**) for a fast, and the middle rotary (**2**) for a slower precise adjustment. Adjustment can be made from 20-100%.



## 4.6.2. Left clutch bite point

The bite point of the left clutch (default 50%) can be adjusted by pressing and holding the button **C** and then using the right rotaries to adjust. You can use the top rotary **(3)** for a fast, and the middle rotary **(4)** for a slower precise adjustment. Adjustment can be made from 20-100%.

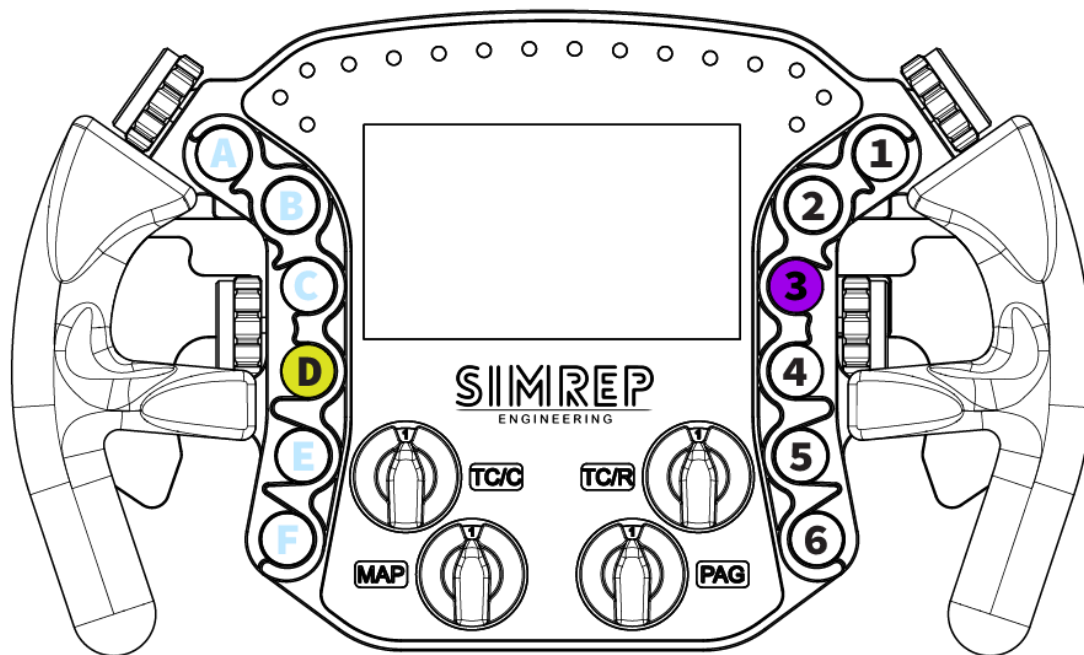


## 4.7. Front rotary output

All front rotaries output as an analogue value. The bottom left “MAP” rotary can be altered from analogue to 12 individual buttons. With this setting, different functions can be assigned to the 12 settings. When switched to “Individual buttons”, the rotary will not function as a rotary anymore.

*Example: You have assigned 12 functions to the “MAP” rotary. With a normal rotary, if you want to switch from setting 1 to 8, you will be activating all settings in between while rotating. With the “Individual buttons” setting, the rotary will only output the selected number (1-12) when confirmed with button 3.*

To toggle between these outputs the buttons **D-3** need to be pressed together. When you want to switch back, button **D** needs to be released **first**. Otherwise it will not switch back.

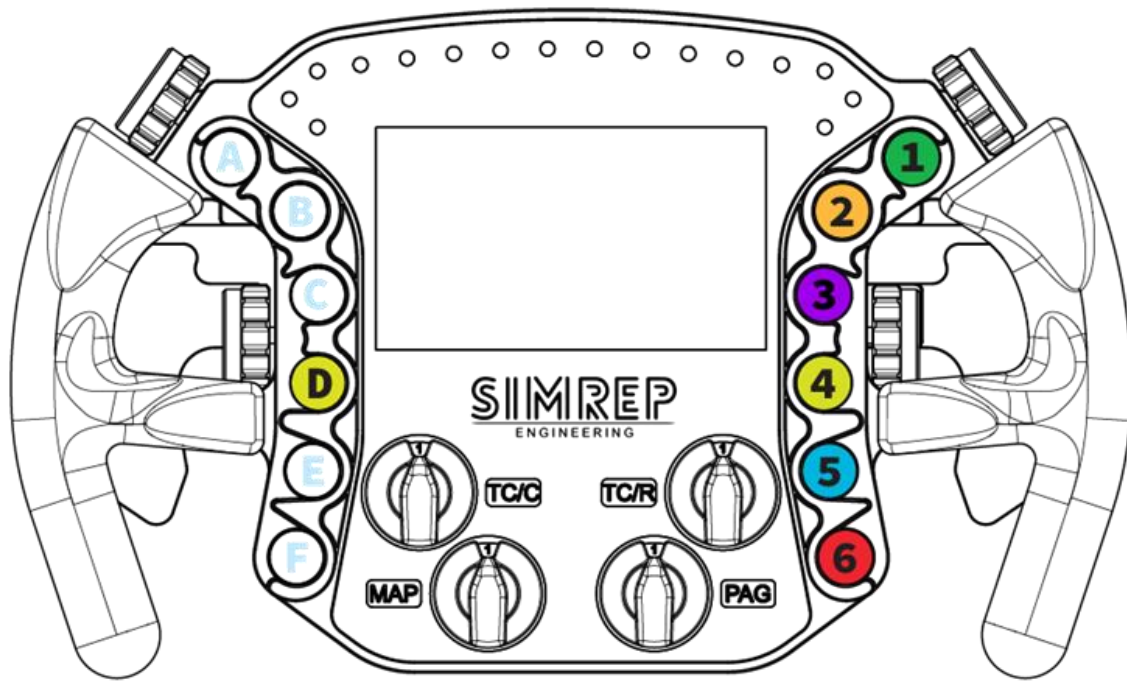


#### 4.8. Side rotary output

All four side rotaries have an plus and minus output. They are best used for settings such as brake bias, traction control adjustment and next/previous page selection.

#### 4.9. Push button assignment

Important to know is that some buttons have dual usage. This means that they are used for controlling in-game functions, but also for toggling on-wheel configurations. Button combo **D-1 to D-6** should always be avoided in-game, as these button combinations are reserved for on-wheel configuration. All buttons can be used in-game, but not pressed simultaneously unless you would like to activate the settings.





## 5. Troubleshooting

- **The P9XX is not visible in the Windows Game controller**
  - Unplug the USB from your computer and reconnect.
- **No purple light on the USB hub**
  - Check the connections to the adapter and a green indicator light on the adapter.
- **Can't calibrate the clutch**
  - Reset the settings by using the D-6 combo and save the setting by pressing D5. Now the normal calibration procedure can be resumed.
- **The clutch doesn't go from 0% to 100% properly**
  - Reset the settings by using the D-6 combo
- **LEDs are not working**
  - Make sure you have SimHub running and the device is properly installed.
- **Screen is not working**
  - You are probably missing the Vocore display drivers. Reinstall SimHub and make sure to check the "Download display drivers" box before you install.

Having any other trouble? You can email us at [info@simrep-engineering.com](mailto:info@simrep-engineering.com) or send us a DM on [Instagram](#) for technical support.