

Hi, and thanks for your business, and I hope you enjoy this product.

Some of my other mods include:

Load cell kits for Thrustmaster T3PA and T3PA—Pro pedals.

Standalone Gear Number displays with or without output for a Tacho.

8 Character LED displays for Speed, laps times, fuel, track position and more, optional Gear change and tacho sockets.

USB adapters for Logitech and Thrustmaster pedals to run directly on PC without wheel

BMW E36 Instrument clusters with or without Gear Number Display.

I hope to have working in the near future Holden, Ford, VW Dashes. But all this depends on availability and price of second hand units.

I can also modify your BMW E36 cluster.

SIMHUB SETUP INSTRUCTIONS

You can either download the latest copy of Simhub or update within Simhub, Simhub can be found on www.racedepartment.com, its quicker to simply google “simhub”. All information is available at race department web site.

Install Simhub onto your hard drive, make sure you have a mini USB cable and a 12 Volt 3.5 amp power supply (not included) plugged into your PC and your instrument cluster before starting simhub, not really that important, just so you can follow these instructions.

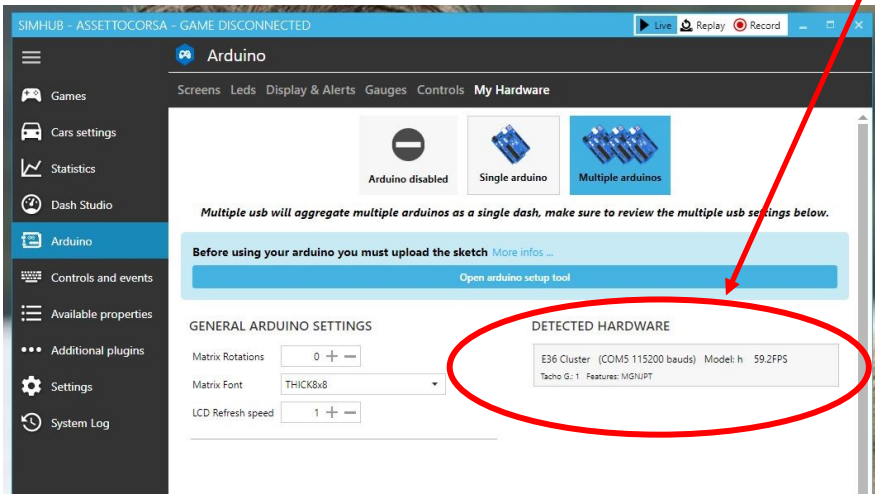
PLEASE NOTE:

Simhub comes with its own Arduino IDE programing tool, DO NOT try to program the BMW dash as the script that is already programmed into your dash is a modified version especially designed to recognize the E36 dash configuration, If your dash is reprogramed using the inbuilt tool your dash will not function correctly or at all.

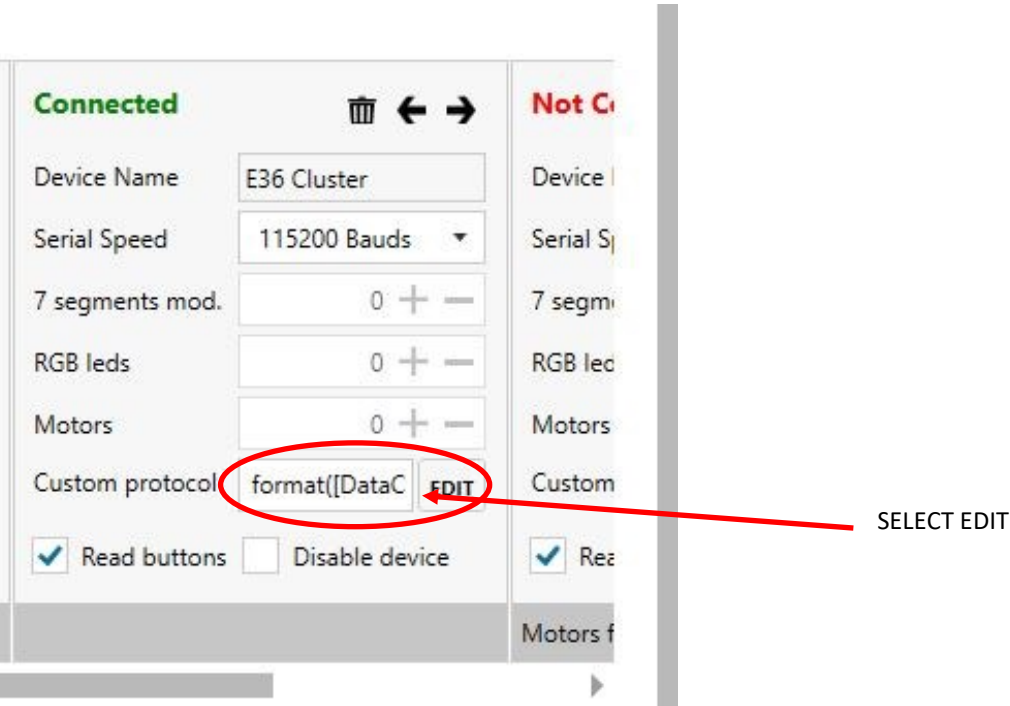
Also SIMHUB is changing all the time so the pictures may not be the same as the ones shown in this manual but the procedure remains the same.

If you have any problems you can email me on billf@simgearau.com.au .

Once Simhub is loaded select the arduino tab and confirm the system sees your dash.



For the dash to work you have to manually input the protocol information so Simhub can send the data from the game to the instrument cluster. The text is shown below, if the dash does not work due to a typo etc while inputting the script you can email me and I can send you a text file so you can cut and paste it into Simhub.



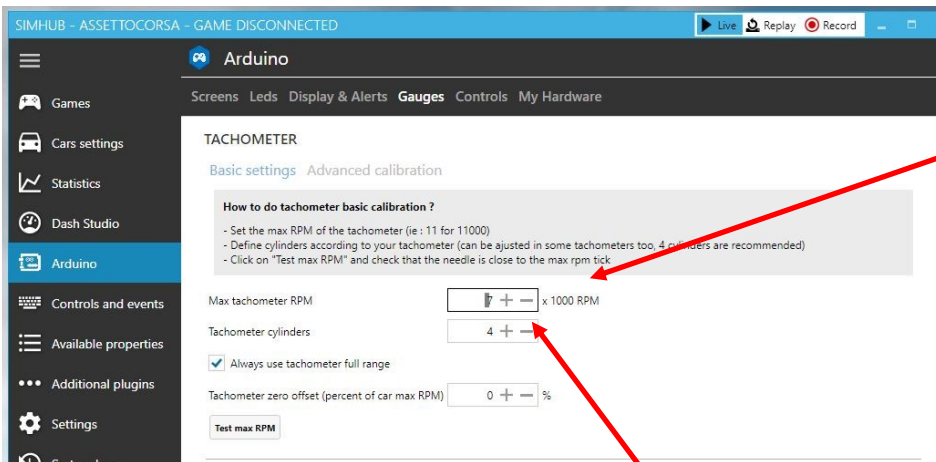
Protocol text

```
NCalc Formula :  
format([DataCorePlugin.GameData.NewData.SpeedKmh], '0')  
+ ';' + format([DataCorePlugin.Computed.Fuel_Percent], '0')  
+ ';' + format([DataCorePlugin.GameData.NewData.Throttle], '0')
```

Actual protocol text that needs to be typed in:

```
format([DataCorePlugin.GameData.NewData.SpeedKmh], '0')  
+ ';' +  
format([DataCorePlugin.Computed.Fuel_Percent], '0')  
+ ';' +  
format([DataCorePlugin.GameData.NewData.Throttle], '0')
```

Next, select the “GAUGES TAB”

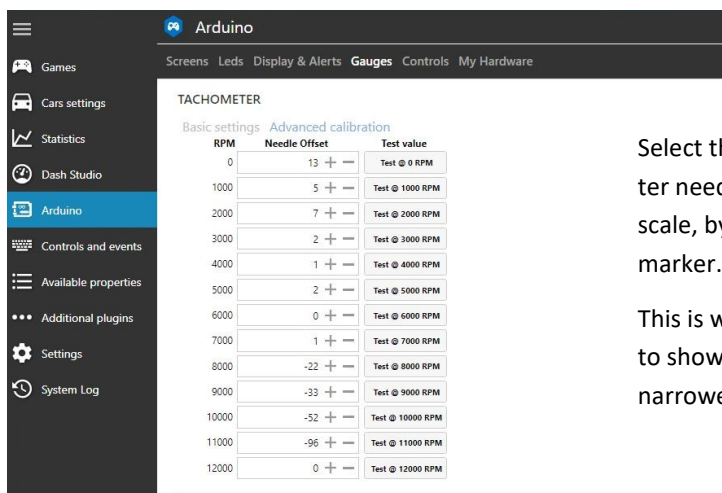


The tacho will go way past the 7000 mark so you may select 9000 or alternatively select the “ Always use tachometer full range” when this is set simhub will average the tacho scale within the 1—7 RPM range.
E.g. If you select a car that revs higher than 7000 rpm simhub will average out the higher rev range over the 7000 scale. Not as accurate but looks more authentic after all who really cares when your in the middle of race. Red line will still be the redline for the higher revving car.

The preferred tachometer setting (according to developer) is 4 cylinder and I endeavor to supply 4 cylinder clusters but sometimes we have to use 6 and 8 cylinder clusters. I have not seen what the difference is they all seem to work the same. If your cluster is not a 4 cylinder version the actual cylinder type will be indicated on the back of the dash cluster. (blank means 4 cylinder)

Press the test button and the needle should show max RPM as per the tachometer scale (don’t be to concerned at this stage as final adjustments are made by selecting the “Advance Calibration” button).

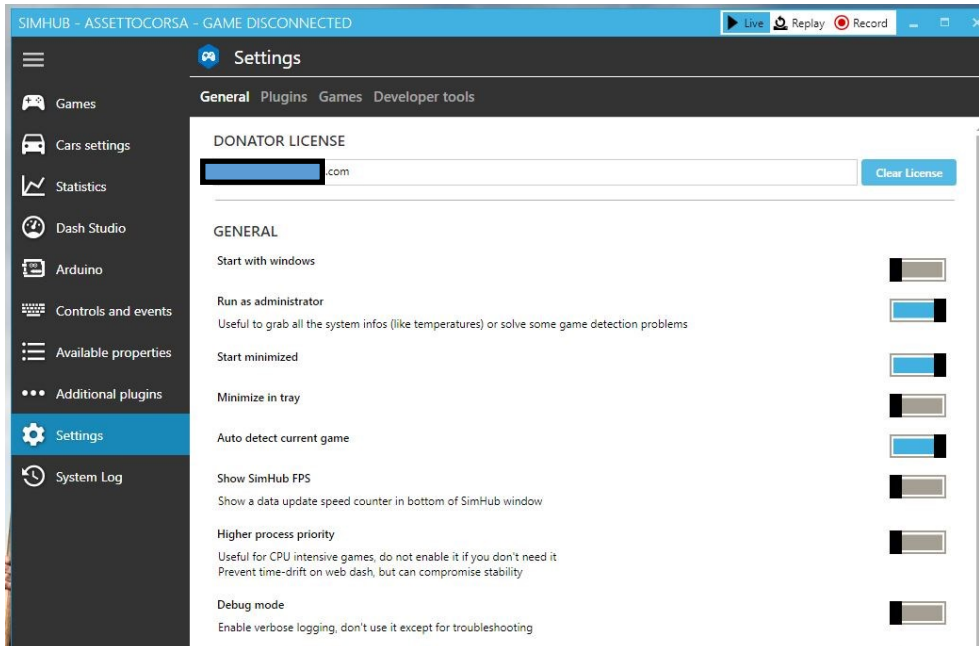
Please press the “advanced calibration button now.



Select the RPM range you wish to calibrate and adjust the tachometer needle to align with the corresponding range marker on the rev scale, by using the + and - buttons you can zero the needle to that marker.

This is where you can adjust the 7000+ ranges to position the needle to show higher revs. You could make the 8—11000 range position narrower.

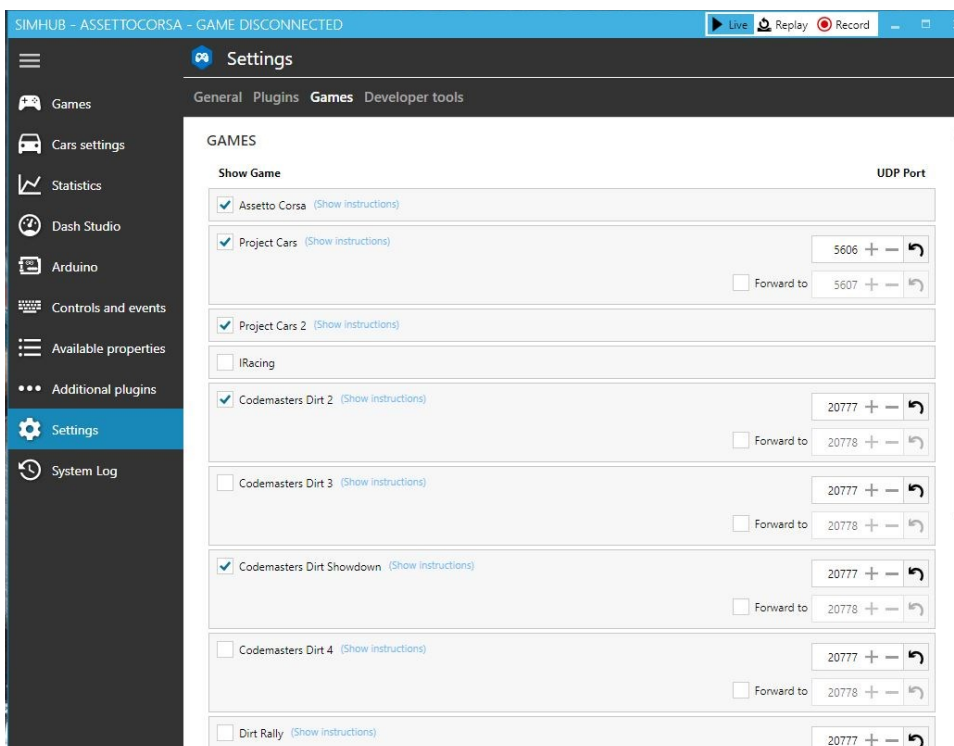
Now select the settings tab



Adjust to suit how you want simhub to behave. It is recommended to run simhub in “Administrator” mode so all data can be gathered from the game.

The setting shown are how I use SIMHUB.

Now Select Games tab



Tick to games you have, only those games selected will appear on the main games screen.

The next bit is not difficult and I hope not to confuse you ,I understand the concept but some people find it difficult.

I will try to explain first: To actually tell simhub where to find the game to enable you to load the game from the main simhub games page and to auto detect the running game you need to first select the game in the main screen then go to the “SETTINGS”/GENERAL TAB and add the games path details. Then once that game is done go back to the main games screen and select the next game and then back to the “SETTING GENERAL” tab and add that games path details etc etc etc

SIMPLE—IT WAS OR ME BUT SOME PEOPLE DON'T CATCH ON ??????



X:/steam/steamapps/common/ **GAME NAME FOLDER /**game**.exe** **X=drive where steam is installed**

See I did say it was easy!!



Not Connected

Device Name

SimHub Dash

Serial Speed

115200 Bauds

7 segments mod.

0

RGB leds

0

Motors

0

Custom protocol

Click edit to :

EDIT

☒ Read buttons
 ☐ Disable device

Device Name

ACHUB Dash

Serial Speed

115200 Bauds

7 segments mod.

1

RGB leds

0

Motors

0

Custom protocol

Click edit to :

EDIT

☒ Read buttons
 ☐ Disable device

7seg/LCD from 1 to 1

Apply changes now

Scan for new devices now

CUSTOMIZE YOUR GEAR NUMBER DISPLAY

If you require to mount the gear number display on its side you can rotate by changing the value in the “Matrix Rotations” field.

Select the “Matrix Font” to change the font style.

“Matrix redline blink” field allows you to turn on or off whether the gear number will blink on red-line.

GENERAL ARDUINO SETTINGS

Matrix Rotations

Matrix Font

Matrix redline blink ☒

LCD refresh speed

DETECTED

E36 Cluster (C
MCU.: unknow
Tacho G.: 1 Gea

Leave the “LCD refresh speed” at default.

To vary the brightness of Your Gear Number Display vary the “Matrix Intensity” to your preferred level of brightness.

SIMHUB - ASSETTOCORSA - GAME DISCONNECTED

Games

Car settings

Statistics

Dash Studio

Arduino

Shakelt

Nextion display

UDP Relay

Controls and events

Available properties

Additional plugins

Settings

System log

Arduino

Screens Leds Display & Alerts Gauges Controls My

MATRIX

Matrix Intensity

RGB MATRIX (Experimental)

RGB Matrix Brightness

Low RPM Color

High RPM Color

ALERTS

Screen display announce

Low fuel alert

Repeat Low fuel alert

SEVEN SEGMENT MODULES

Main intensity

#	BRIGHTNESS	ORIENTATION
#1	<input type="text" value="7"/>	<input type="checkbox"/> Reverse display
#2	<input type="text" value="7"/>	<input type="checkbox"/> Reverse display
#3	<input type="text" value="7"/>	<input type="checkbox"/> Reverse display
#4	<input type="text" value="7"/>	<input type="checkbox"/> Reverse display
#5	<input type="text" value="7"/>	<input type="checkbox"/> Reverse display