

GLW-43 Steering Wheel



Formula steering wheel with high resolution, customisable display, shift paddles, 13 RGB LEDs, 8 push buttons and 3 rotary switches

Specifications

Parameter	Value
Operating Voltage	7V – 17.5V
Power Consumption	≈ 160mA @ 12V (LEDs off) ≈ 320mA @12V (All LEDs on full)
Display	4.3in LED Backlit TFT
Resolution	800 x 480 pixels
Active Area	95.04 (W) x 53.86 (H) mm
Shift Lights	13 RGB fully configurable LEDs, software configurable
Gear Shift Paddles	2 x Precision Design Works MSV1 (outputs wired & digital i.e. CAN)
Push Button Switches	8 x C&K NP Series Switches (2 wired outputs & all digital)
Rotary Switches	3 x Grayhill 56 Series 12-position rotary switches (digital output only)
Switch Knobs	Anodised aluminium (3 colours)
Inputs	
Analogues	2 x 0-5V 12bit
Beacon	1 x low active, compatible with AIM and PI beacon receivers.
GPS Serial	NMEA compatible, configurable baud rate
Internal Channels	
Supply voltage	1
Internal temperature	1

Outputs	
Shift paddle outputs	2 x 0-5V output
Low side drivers	4 x 12V, up to 100mA
Direct Push Button Outputs	2 x Direct wired outputs from push buttons
Grips	Moulded, ridged polyurethane, removeable
Data-logging	
Storage	192Mbyte
Channels	Any CAN channel, switch states and internal channels may be logged.
Rates	Configurable up to 100Hz
Communications	
CAN 2.0B	1 x with software selectable baud rate. Selectable 120Ohm termination.
USB 2.0	1 x For configuration upload and log data download.
Quick Release Mounting	3 position 50.8mm dia mountings, M5
Connector(s)	1 AS Connector AS212-35PN – main loom
	1 USB Micro – (display programming & download)
Size	279mm x 182mm x 74mm
Weight	1005g

Getting Started

1. Install the latest **GEMS Dash Design** software from:
gems.co.uk/downloads/software
(required to install drivers)
2. Connect power and ground, see pin out below.
3. Connect USB to PC, and run GEMS Dash Design

Connectors

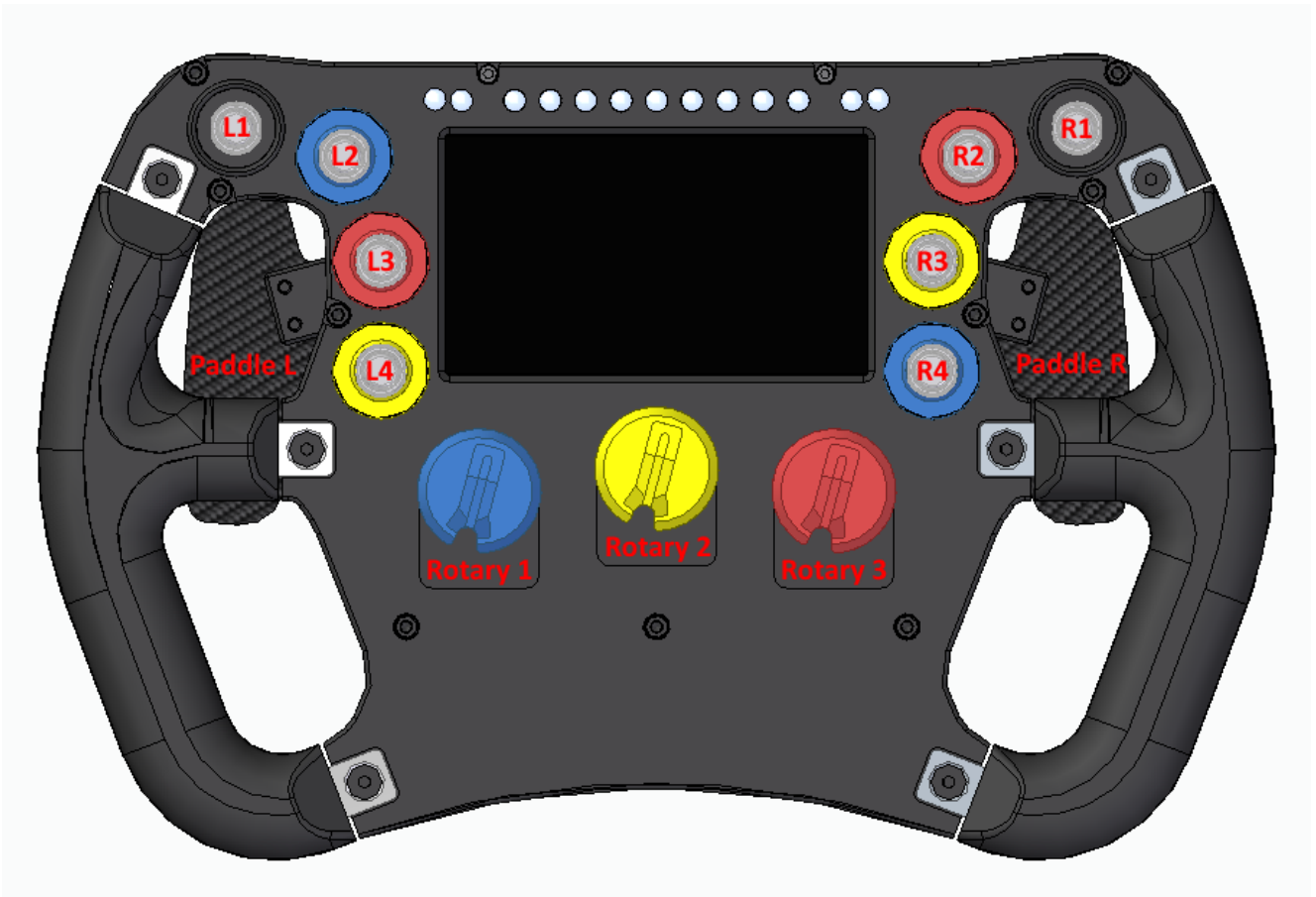
ID	Connector	Loom/Mating Connector
1	AS212-35PN	AS612-35SN
2	USB Micro AB Socket	USB Micro AB Plug

Pin Out

Connector		1	
Pin	Name	Function/Notes	
1	Supply Power	Recommended use all 3 in parallel	
2	Supply Power		
3	Supply Power		
4	Button Direct Out 1A	Direct short when button R3 Pressed	0.5A Max
5	Button Direct Out 1B		
6	Button Direct Out 2A	Direct short when button R4 Pressed	
7	Button Direct Out 2B		
8	CAN High	Software selectable 120Ohm termination	
9	CAN Low		
10	Beacon Input	Pull to ground to activate	
11	Shift Paddle L	0-5V, 5V when pulled	
12	Shift Paddle R		
13	Low Side Output 1	Min 100Ω to 12V, 100mA Max	
14	Low Side Output 2		
15	Low Side Output 3		
16	Low Side Output 4		
17	Analogue Input 1	0-5V, 12bit, Software name: A06	
18	Analogue Input 2	0-5V, 12bit, Software name: A07	
19	GPS Input		
20	Supply Ground	Recommended use all 3 in parallel	
21	Supply Ground		
22	Supply Ground		

Connector		2	
Pin	Name	Function/Notes	
-	USB Micro AB	Configuration/Log Download	

Button Identification



Dimensions

