Zen's Simwheels
Custom Simracing Equipment

USER MANUAL

EN

LMZ/Evo

SIMRACING STEERING WHEEL



10-2026 v1.0

Firmware version V1.2.5 · ZS SimControl 1.0.1

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Handcrafted by ZEN'S SIMWHEELS

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PACKAGE INCLUDES

- LMZ Evo Steering Wheel
- 50.8 mm Spacer/Adapter (if ordered)
- Extra sticker sheet + tweezer
- Coiled USB cable
- Set of bolts, nuts and tools

This manual is written for firmware **V1.2.5** and ZS SimControl **1.0.1**. ZS SimControl shows the firmware in your wheel at the top right, and can update it (Firmware Updater).

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YOUR LMZ EVO AT A GLANCE

All controls with the button numbers that Windows, SimHub and your games see. In this manual the buttons are called **B1 – B8** (the stickers on your buttons are your own choice). In ZS SimControl (**Input Test**) every number lights up live while you press it.



Behind the wheel

Control	Left	Right
Top paddles	Button 16	Button 19
Middle paddles	Button 17	Button 20
Back buttons (top)	Button 15	Button 18
Clutch paddles	Analog axes – see Clutch axes	

Clutch axes

Axis	Used for
Rx	Dual-Clutch (both paddles together)
Ry / Rz	Left / right paddle (Separate mode)
Z	Bite point

The funky switches also work as an 8-way hat (POV 1 left, POV 2 right).

Rotaries

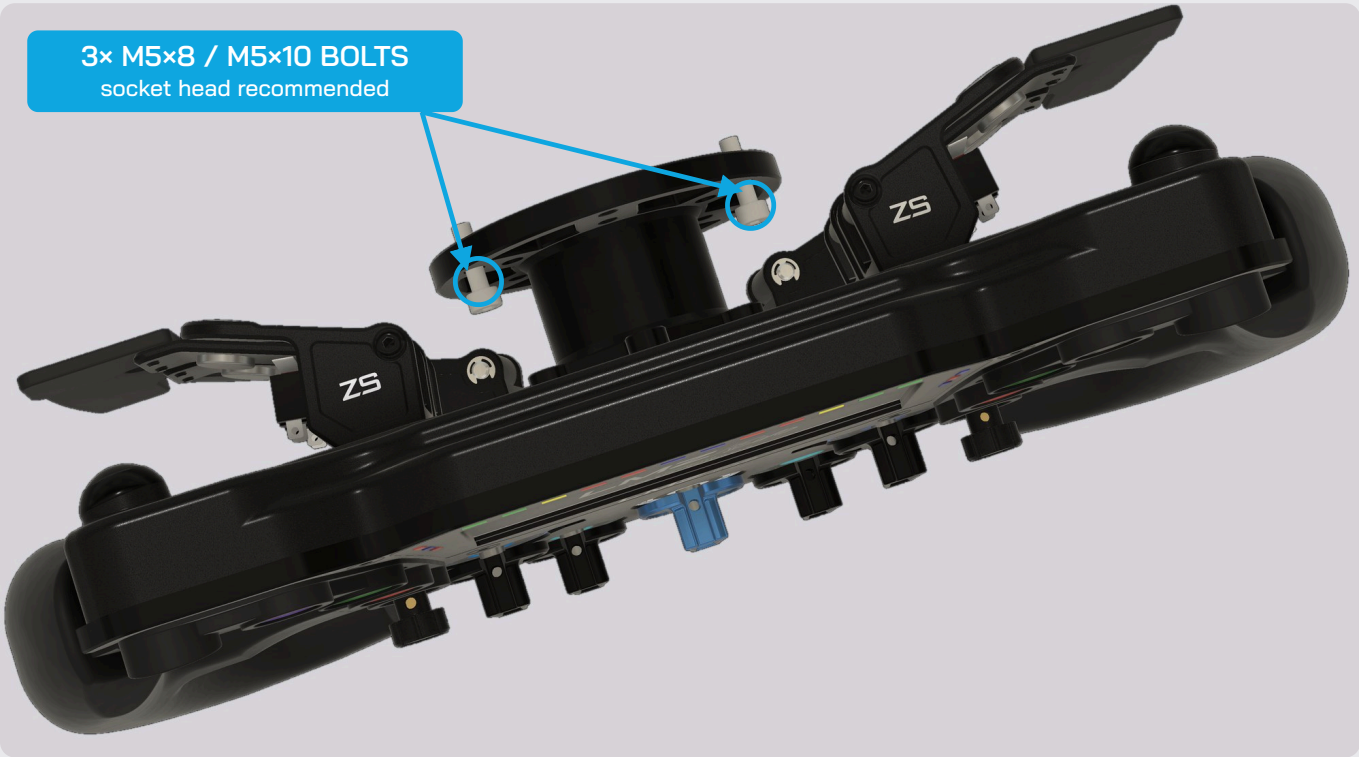
Rotary	As 12 positions	As encoder (left / right)
Centre rotary	Buttons 25 – 36	Buttons 85 / 86
Rotary 1 (top left)	Buttons 37 – 48	Buttons 37 / 38
Rotary 2 (top right)	Buttons 73 – 84	Buttons 73 / 74
Rotary 3 (bottom left)	Buttons 49 – 60	Buttons 49 / 50
Rotary 4 (bottom right)	Buttons 61 – 72	Buttons 61 / 62

Which one applies depends on the rotary switch mode. In Thumb-link mode the thumb encoders send buttons 89 – 112, depending on the position of the centre rotary.

MOUNTING YOUR QUICK RELEASE

Mount your quick release (QR) directly onto the hub at the back of the wheel.

1. Place your quick release on the hub at the back of the wheel and line up the holes.
2. Fix it with **3× M5×8 or M5×10 bolts** – socket head bolts are recommended.



MOUNTING EXAMPLE

Use the correct bolt size: M5×8 or M5×10 (socket head bolts recommended). Tighten them firmly, but not with excessive force.

Using the USB passthrough of your quick release? See the next page.

USB PASSTHROUGH

The LMZ Evo can be connected in two ways: with the included coiled USB cable (the standard way), or through the USB passthrough of your wheelbase / quick release.



1. **Main USB connector** at the bottom of the wheel – for the included coiled USB cable. This is the one most people use.
2. **QR-USB passthrough connector** (JST XH 2.54 mm, 4-pin) in the centre of the hub – for USB passthrough with a short cable.

Using USB passthrough

1. Connect a short USB cable from the passthrough of your quick release to the **QR-USB connector** in the centre of the hub.
2. Mount the quick release (see the previous page). Never use the main connector and the passthrough connector at the same time.

Short USB cables for the LMZ Evo are available from Zen's Simwheels – order them here.

Making your own cable? Wire it exactly to the pinout of the passthrough connector (JST XH 2.54 mm, 4-pin), as shown in the table and printed on the PCB. Check every wire before you plug it in: wrong wiring can damage the electronics and **voids the warranty**.

Pin	Signal	USB wire (usual colour)
1	**5V**	Power + (red)
2	**D–**	Data – (white)
3	**D+**	Data + (green)
4	**GND**	Ground (black)

INSTALLING THE WHEEL WITH SimHub

The LMZ Evo is Plug & Play: Windows recognises it as a game controller right away. For the LEDs, the screen and the dashboard you install it once in SimHub.

1. **Install SimHub.** Download, install and open the latest version of SimHub (version 9.13.4 minimum): www.simhubdash.com/download-2
2. Go to **Devices** and click **“Add new device”**.
3. Search for **“Zen’s Simwheels LMZ Evo”** and click **OK**.
4. SimHub recognises the wheel automatically and turns on the LEDs. You can now customise all the LED buttons, dash LEDs, the display and much more!

SimHub and the standby lighting work together

When SimHub is not showing anything on the LEDs (SimHub closed, or device disabled), the wheel shows its own **standby lighting**: colours, presets and moving effects that you set in ZS SimControl (see the LEDs pages). As soon as SimHub sends LED data again, SimHub takes over.

> **Brightness:** while SimHub drives the LEDs, SimHub’s own brightness setting is used. The brightness sliders in ZS SimControl are for the standby lighting and the startup animation.

> ZS SimControl and SimHub can stay open at the same time.

TWO WAYS TO SET UP YOUR WHEEL

You can change the settings of your LMZ Evo in two ways. Whichever way you use, the settings are saved **in the steering wheel itself**: they stay when you unplug it or connect it to another PC.

A · ON THE WHEEL

Button combinations

No PC software needed. Press a combination of buttons and the LEDs confirm it with a colour.

Clutch calibration, clutch mode, bite point, rotary switch mode and firmware update mode.

Go to part A →

B · ZS SIMCONTROL

The software (Windows)

See and change everything on screen, with a live picture of your wheel. Also for the LED colours and firmware updates.

Free download on zenssimwheels.com/downloads.

Go to part B →

What can you change where?

Setting	A · On the wheel	B · ZS SimControl
Clutch calibration	✓	✓
Clutch mode (Dual-Clutch / Separate)	✓	✓
Bite point	✓ (steps of 5%)	✓ (steps of 1%)
Clutch deadzones	–	✓
Rotary switch mode	✓	✓
Test all buttons, switches and paddles	–	✓
Standby colours, presets and moving effects	–	✓
Startup animation and LED brightness	–	✓
Firmware update	Update mode only	✓

CALIBRATING THE CLUTCHES

Out of the box, the clutches are already calibrated. If you need to recalibrate them, follow the steps below.

1 Press and hold **B8** (marked in green) for **8 seconds**, until **all the LEDs turn blue**. Then release the button.



CALIBRATION MODE

2 Pull **both clutch paddles fully** (separately or together) and release them.

SAVE CALIBRATION

3 Press B8 (marked in green) once to **save the calibration**. The blue LEDs turn off and the standby / SimHub LEDs come back on.



NORMAL OPERATION MODE

Release the button as soon as the LEDs turn blue in step 1. If you keep holding it, the calibration is saved straight away, without the movement of the paddles. Simply start again.

Tip: you can also calibrate in ZS SimControl (Controller tab): there you see the paddles move live while you calibrate.

CONFIGURING THE CLUTCHES

4. Switching clutch modes

There are 2 clutch modes: **Dual-Clutch** (with bite point) and **Separate** (2 separate axes).

To switch modes, press B1 and B4 (marked in red) together. All LEDs turn **green** for a split second and the mode is switched.





MODE SWITCHED

Mode	How it works
Dual-Clutch	Both paddles work as one clutch (axis Rx). Pull both fully for 100%; release one and the clutch drops to the bite point; then release the other for your launch.
Separate	Each paddle is its own axis (left Ry, right Rz) – e.g. clutch + handbrake.

5. Changing the bite point

Press and hold B4 (marked in purple) and turn the **right funky switch**: clockwise to raise, anticlockwise to lower the bite point, **5% per click**. Release B4 to save it. Check the **Bite Point** bar in ZS SimControl (Input Test) or axis Z to see the current percentage.



MODIFY BITE POINT

ROTARY SWITCH MODES

The 5 rotaries (rotary 1 – 4 and the centre rotary) can work as 12-position switches or as encoders. There are 4 switch modes.

Press B5 and B8 (marked in orange) together. All LEDs flash in the colour of the new mode. Every press goes to the next mode: **Normal → Combined → Thumb-link → All Encoders →** back to Normal.



SWITCHING ROTARY MODES



Normal
LEDs flash green



Combined
LEDs flash purple



Thumb-link
LEDs flash red



All Encoders
LEDs flash blue

Switch mode	What the rotaries do
Normal	All 5 rotaries work as 12 individual positions.
Combined	The centre rotary works as 12 positions, rotary 1 – 4 work as encoders.
Thumb-link	The centre rotary works as 12 positions, linked to the thumb encoders: position 1–6 changes what the right thumb encoder sends, position 7–12 the left one. Rotary 1 – 4 work as encoders.
All Encoders	All 5 rotaries work as encoders.

FIRMWARE UPDATE MODE

To install new firmware, the wheel has to be in **Firmware Update Mode** (DFU). Normally ZS SimControl does this for you with one click (Firmware Updater). You can also do it on the wheel:

1. Press and hold **both back buttons** 15 and 18 (on top, behind the wheel) for **10 seconds**, until all the LEDs turn **red**.





FIRMWARE UPDATE MODE

2. Install the firmware with the Firmware Updater in ZS SimControl.

> Changed your mind? Click **Exit DFU Mode** in the Firmware Updater, or unplug the USB cable and plug it back in: the wheel starts normally again.

Quick reference – everything on the wheel

What	How	LEDs
Clutch calibration	Hold B8 8 s → pull both clutches → press B8	Blue
Clutch mode	B1 + B4 together	Green flash
Bite point	Hold B4 + turn the right funky switch	–
Rotary switch mode	B5 + B8 together	Mode colour
Firmware update mode	Hold both back buttons B15 + B18 10 s	Red

ZS SIMCONTROL - DOWNLOAD & INSTALL

ZS SimControl is the free Windows software for your LMZ Evo: test every input, set up the clutches, switch modes, colour the LEDs and update the firmware.

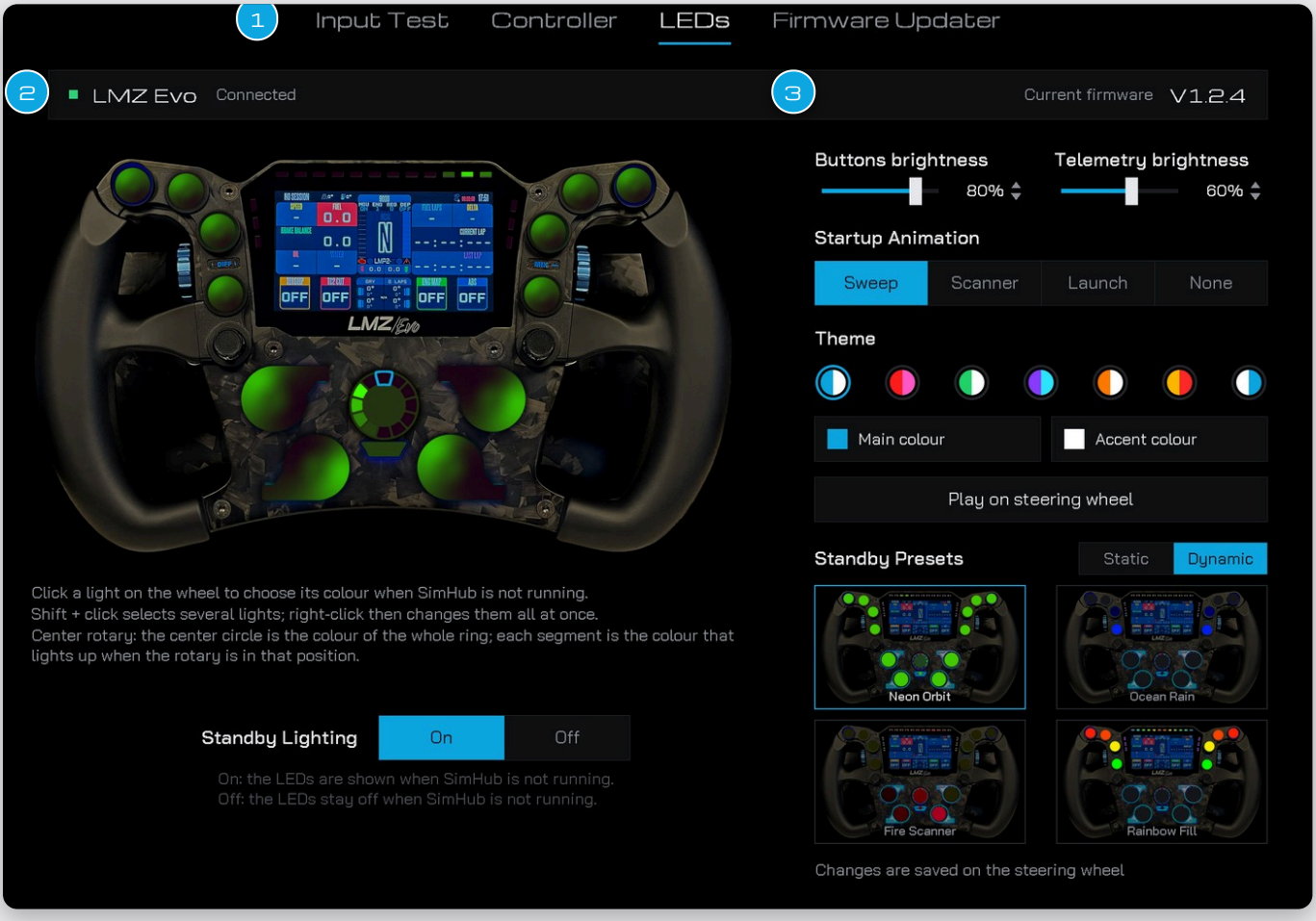
Download & install

1. Go to zenssimwheels.com/downloads and download **ZS SimControl** (zip).
2. Open the zip and start **ZS SimControl Setup**. Choose your language, the folder and whether you want a desktop shortcut.
3. Click **Install** and then **Finish**. ZS SimControl starts and finds your wheel automatically.

> **"Windows protected your PC"?** The first time, Windows SmartScreen may show this message. Click **More info → Run anyway**.

Windows 10 / 11 (64-bit). No administrator rights needed. A newer version installs over the old one; your settings are kept. Uninstall via Settings → Apps.

The window



1. **Tabs** – Input Test, Controller, LEDs and Firmware Updater.
2. **Your wheel** – name and connection: *Connected* as soon as the USB cable is plugged in.
3. **Current firmware** – the firmware version in your wheel (this manual: V1.2.5).

INPUT TEST

Test every button, switch and paddle. Everything you press lights up on screen, with its button number.



1. **Clutch** – the clutch axes and the bite point, live in %.
2. **Funky switches** – the direction you push the left (L) and right (R) funky switch.
3. **Buttons** – every button number lights up blue while it is pressed. Encoder clicks flash briefly.
4. **Rotary mode** – the current rotary switch mode. Click another one to switch.
5. **Last input** – shows which button you pressed last (handy to find a number for SimHub or your game).

> **Tip:** the button numbers are the same as on Your LMZ Evo at a glance. Turn a rotary to see which numbers its 12 positions send.

CONTROLLER

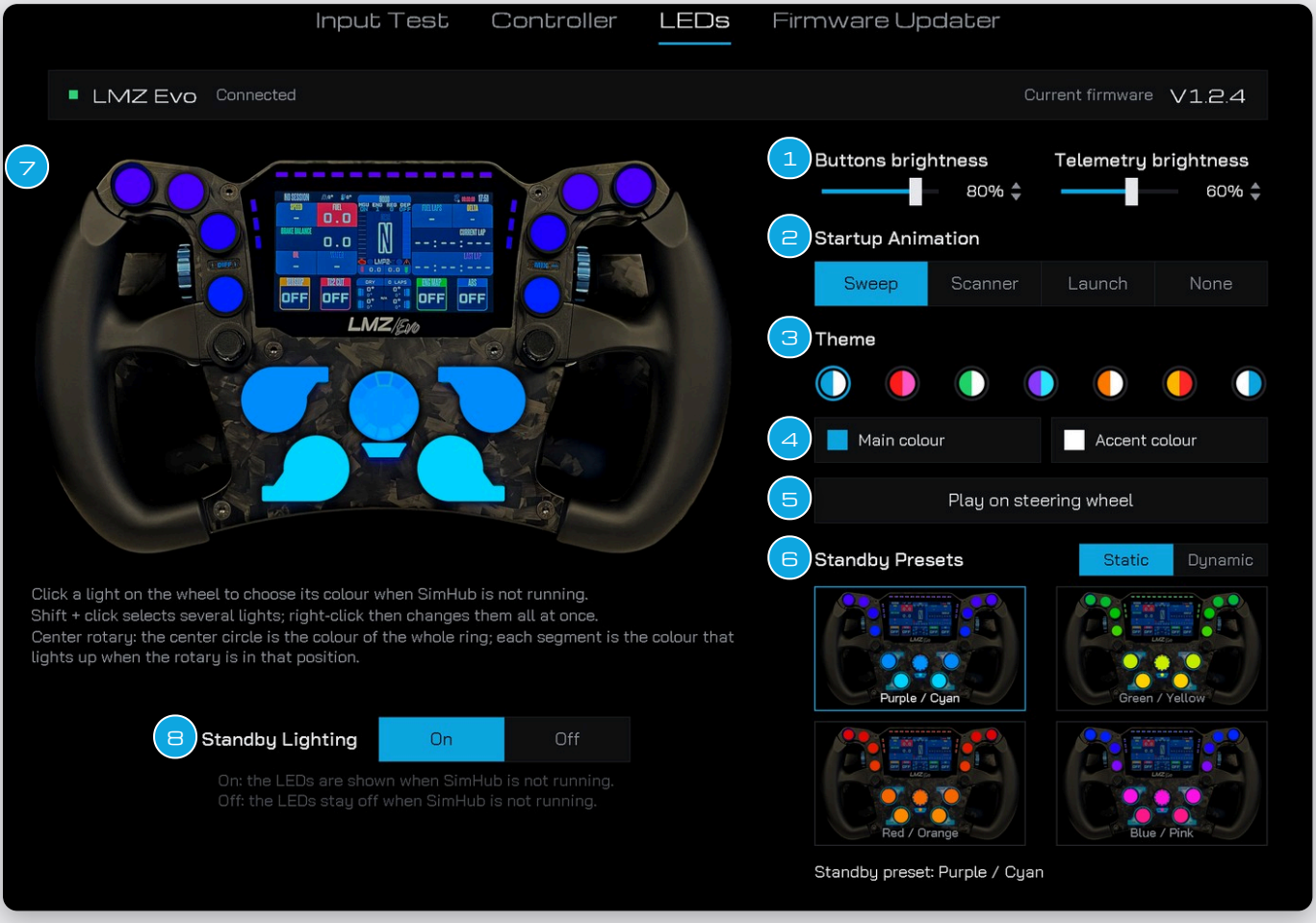
Set up the clutches and the rotary switch mode, with a live picture of your wheel.



1. **Live wheel** – the controls light up while you use them. The numbers show what each control sends.
2. **Clutch mode** – Dual-Clutch or Separate (see clutch modes).
3. **Bite point** – drag the slider, use the arrows or type a value (1% steps).
4. **Calibration** – click *Calibrate clutch*, pull both paddles fully and release them, then click *Save* (or *Cancel*).
5. **Deadzone** – per paddle: *Start* = how far you pull before anything happens, *End* = when it reaches 100% (max. 30%).
6. **Rotary mode** – Normal, Combined, Thumb-link or All Encoders (see rotary switch modes). Hover over a mode to read what it does.
7. **Clutch bars** – the left and right paddle and the Dual-Clutch output, live.

LEDS - LIGHTING

Colour your wheel when SimHub is not running: the **standby lighting**, the **startup animation** and the brightness.



1. **Brightness** – Buttons (buttons, rotaries, ring, stripe) and Telemetry (dash LEDs), 0–100%.
2. **Startup animation** – plays when you plug in the wheel: Sweep, Scanner, Launch or None.
3. **Theme** – colour pairs for the startup animation.
4. **Main / Accent colour** – pick your own colours for the startup animation.
5. **Play on steering wheel** – plays the startup animation on the wheel and on screen.
6. **Standby presets** – ready-made looks, Static or Dynamic (moving). See the next pages.
7. **The wheel** – click any light to give it its own colour.
8. **Standby lighting** – On: the LEDs light up when SimHub is not running. Off: they stay dark.

LEDS - YOUR OWN COLOURS

Colour a light

1. Click a light on the wheel picture (a button, a rotary ring, a ring segment, the stripe or a dash LED).
2. Pick a colour: drag in the field and on the colour bar, click one of the **LED colours** or a recent colour, or type a **hex** code. The wheel shows the colour **live** while you choose.
3. **Apply** saves it on the wheel. **Cancel** puts the old colour back.

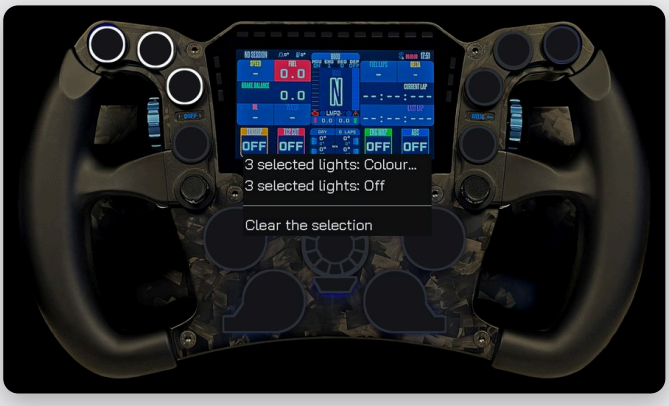
Drag the window by its title bar to move it.



Several lights at once

Shift + click selects several lights (white outline). Then **right-click** for the menu:

- **Colour…** – one colour for all selected lights.
- **Off / On** – switch the selected lights off or back on.
- **Clear the selection**.



The centre rotary ring

Click the **centre circle** to set the colour of the whole ring. Click a **segment** to choose the colour that lights up when the rotary is in that position – so you always see which position you are in.

> A light set to black (Off) stays dark in standby. All colours are saved on the wheel.

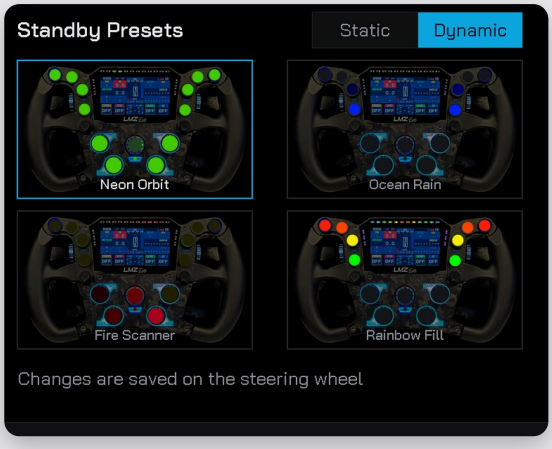
LEDS - STANDBY PRESETS

Static presets

Click **Static** and then a preset: Purple / Cyan, Green / Yellow, Red / Orange or Blue / Pink. All lights get their colours at once. **Right-click** a preset to give it another colour theme.

Dynamic presets (moving effects)

Click **Dynamic**: Neon Orbit, Ocean Rain, Fire Scanner and Rainbow Fill. Hover over a preset to see it move, click it to put it on your wheel.





Make it your own

Right-click a dynamic preset to change its **theme**, **animation** or **speed** (Slow, Normal, Fast). The preset keeps your choice.

While an effect is on, **click the wheel picture** to change colour 1, colour 2, the animation or the speed – or go **back to the static colours**.

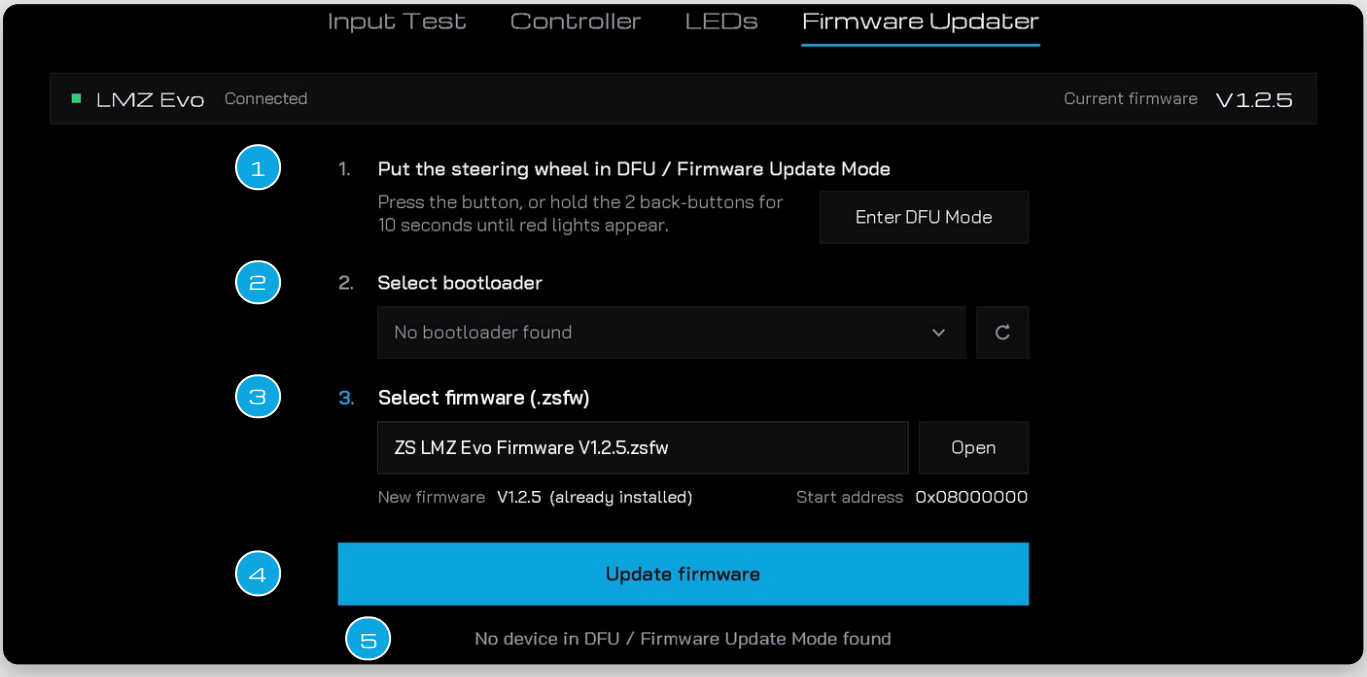
The effects

Effect	What you see
Orbit	Lights circle around every button and rotary; the ring spins.
Rain	Light falls from the top of the wheel to the bottom.
Scanner	A light sweeps from left to right and back.
Rev fill	Fills up like rev lights, flashes like a shift light, then drains.
Bounce	A band of light bounces down and up.
Sparkle	Lights twinkle at random.
Color cycle	The whole wheel fades between colour 1 and 2.
Breathe	Fades in and out, switching colours.
Wave	A colour wave flows over the wheel.
Spin	A light runs around the centre ring.

> The preview in ZS SimControl runs in step with your wheel. Effects use the Buttons and Telemetry brightness.

FIRMWARE UPDATER

Keep your wheel up to date: download the latest firmware (zip) on zenssimwheels.com/downloads. Unzip it – inside is the firmware file (**.zsfw**) that you open in the Firmware Updater.



1. **Enter DFU Mode** – puts the wheel in Firmware Update Mode (the LEDs turn red). You can also hold both back buttons for 10 seconds.
2. **Select bootloader** – the wheel in update mode is found and selected automatically.
3. **Select firmware** – click *Open* and choose the .zsfw file. You see its version, and whether it is already installed.
4. **Update firmware** – installs it. Do not unplug the wheel while it is busy.
5. **Status** – progress and messages. When it is done, the wheel restarts by itself.

First update on this PC? If the button shows **Install driver** after the LEDs turned red, this PC still needs a driver for Firmware Update Mode. Click it (Windows may ask for permission once) and wait for "Driver installed" – then the update works as described above.

After the update the wheel starts with its startup animation and the new version shows at the top right. Your settings stay in the wheel.

TROUBLESHOOTING

Problem	Solution
The wheel is not found, or disconnects	⚠ **Use the included coiled USB cable only.** Other cables can be charge-only or too thin for the wheel. Plug it **directly into the PC** (a USB port on the back of the computer), or use a **powered USB hub**. Check Windows *Game controllers* (joy.cpl): the wheel should be listed.
A rotary only sends two buttons (left / right)	It works as an encoder in this switch mode. Switch to Normal for 12 positions (rotary switch modes).
A clutch does not reach 0% or 100%	Calibrate the clutches again (on the wheel or in the Controller tab). Adjust the deadzones if needed.
The clutch only goes up to the bite point	You are in Dual-Clutch mode: pull **both** paddles for 100%, or switch to Separate (clutch modes).
The LEDs stay off when SimHub is closed	Turn **Standby lighting** On in the LEDs tab, and check the brightness sliders.
The LEDs look different in SimHub	SimHub uses its own LED profiles and brightness while it runs.
All LEDs suddenly turn blue	B8 was held for 8 seconds: the wheel is in calibration mode. Pull both clutches and press B8 to save.
All LEDs turn red and the wheel stops working	The wheel is in Firmware Update Mode. Update the firmware, or unplug and replug the USB cable.
"Windows protected your PC"	Click **More info** → **Run anyway** (first install only).

> Still stuck? Contact us – we can help from distance through TeamViewer or Discord.

FINISH! HAVE FUN!

Have fun!

We hope the installation and the steps were successfully done and we wish you a lot of fun with your new steering wheel!

If you have any questions or you need help with the installation, don't hesitate to contact us any time. We are able to help from distance through TeamViewer or Discord.

Contact information

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OUR APPROACH

Simracing has been my passion for a very long time. From having a simracing setup myself, being a fan of motorsport to finding the limit on tracks. But there has always been a struggle when it comes down to the equipment I raced with in my simulator. It was never perfect for me. In 2020 I thought: why shouldn't I make my own wheel?

I believe that you can perform at your best when you have the right equipment. My motivation is to help other simracers that have the same struggle. I think it's a great idea that you see a piece of yourself in the material you use when racing, but this is only possible if you have influenced the product yourself.

What started as a hobby has turned into my own company where I work with passion every day. I am looking forward to build your dream wheel and create something unique!



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