



**PURPLE
RACE LABS**

PRL PEDALS

QUICK START GUIDE

Rev. 1.0



WELCOME

Thank you for choosing PRL Pedals.

PRL Pedals were developed by Purple Race Labs with a clear objective: to create a pedal system that delivers exceptional precision, consistency, reliability and adjustability for sim racing.

The name Purple Race Labs reflects the competitive sim racing heritage that inspired the project. Developed with direct input from professional sim racers, every aspect of the pedal system has been designed around the demands of high-level competition, where repeatability, confidence and consistency are critical to performance.

At the heart of PRL Pedals is a simple philosophy:

A pedal should accurately measure the driver's intent while providing the freedom to tailor pedal feel to individual preference.

To achieve this, the mechanisms responsible for pedal feel are intentionally separated from those responsible for measuring driver input. This allows the brake, throttle and clutch to be adjusted extensively without compromising measurement accuracy or consistency.

The brake pedal combines a proprietary high-capacity load cell with a progressive bell-crank mechanism and interchangeable die springs, providing a wide range of force and travel characteristics without relying on elastomers.

The throttle and clutch pedals follow the same philosophy, using dedicated load cells to measure driver input while independent mechanical systems create pedal feel. The approach allows each pedal to be tuned for different vehicle types and driver preferences while maintaining predictable and repeatable operation.

Regardless of if you are looking to replicate the characteristics of a road car, a GT car, a formula car, or something entirely unique, PRL Pedals provide the tools to create a driving experience tailored to your requirements.

Every pedal set is supplied with a carefully developed baseline configuration, allowing you to begin driving immediately. For those who wish to explore further, extensive mechanical and software adjustment options are available.

We hope you enjoy using PRL Pedals as much as we enjoyed developing them.



- 1. Mounting your pedals**
- 2. Setting the pedal angle**
- 3. Connect cables**
- 4. Software Install (*optional*)**
- 5. Calibration**
- 6. First use**



1 MOUNTING YOUR PEDALS

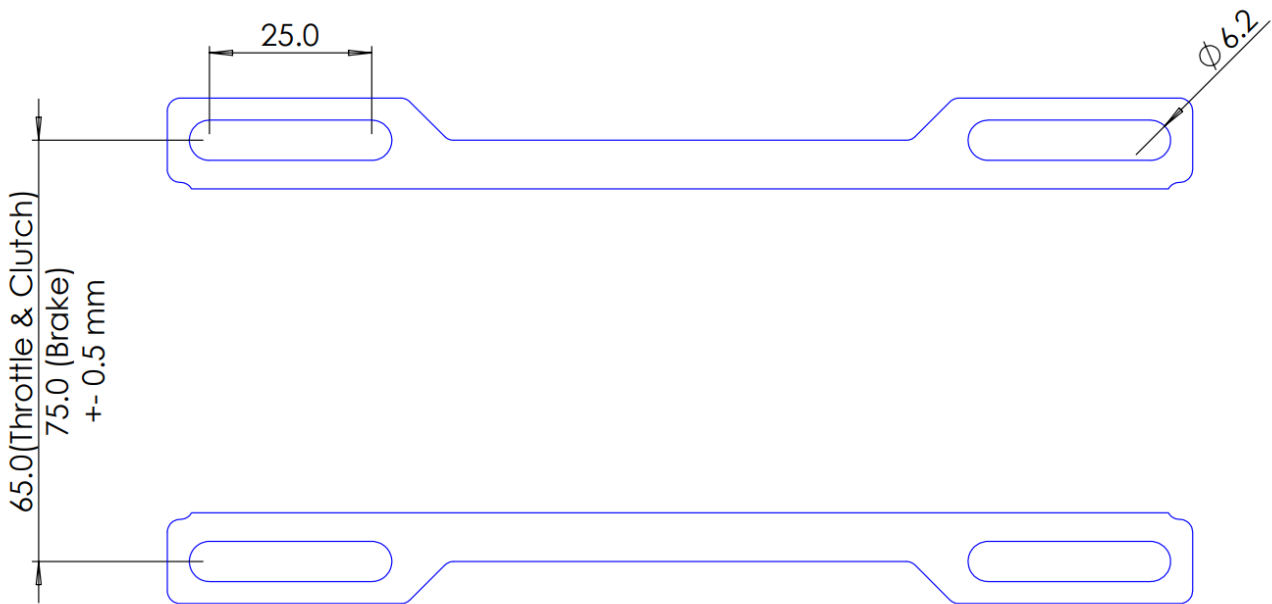
Each pedal contains four mounting slots suitable for M6 screws (supplied). The slots facilitate forward / backward adjustment to stagger each pedal independently for best ergonomics. For example, it is common to position the throttle slightly behind the brake and clutch for more comfortable heel-and-toe downshifting.

If mounting to t-slot aluminium profile, use the 12mm screws together with M6 t-slot nuts (not supplied). Ensure to pair each screw with a washer to spread the load over a larger surface area and minimise scratches.

If mounting to a pedal plate, use the 25mm screws with the supplied nyloc nuts underneath. Be sure to use washers both on the pedal feet and under the plate.

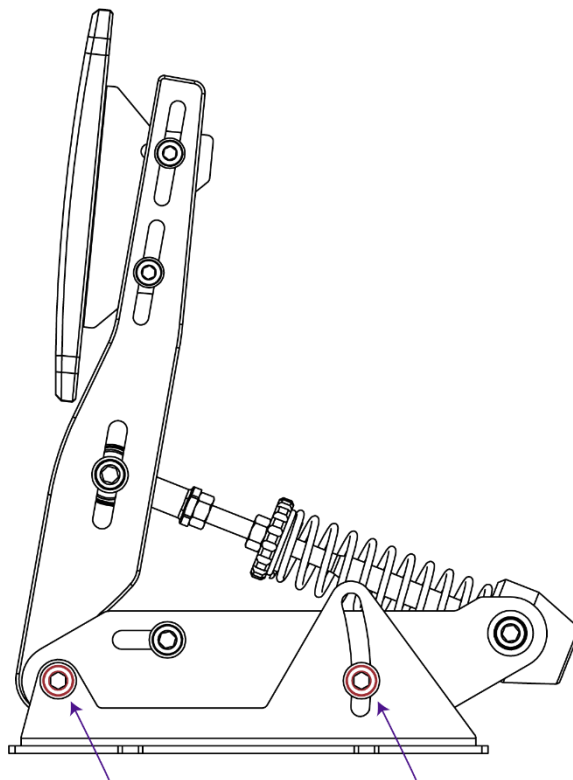
Given how much force the pedals are capable of handling, it is imperative that both the pedal plate and chassis as a whole are very rigid and strong.

See the diagram for mounting schematics. The throttle and clutch pedal are both equal in width, while the brake is 10 mm wider (*all dimensions are in mm*).



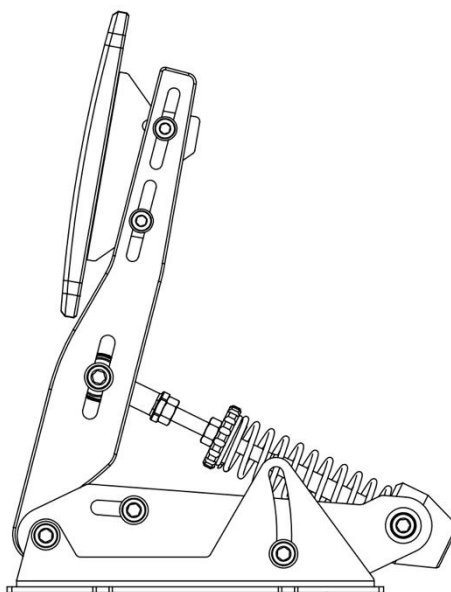
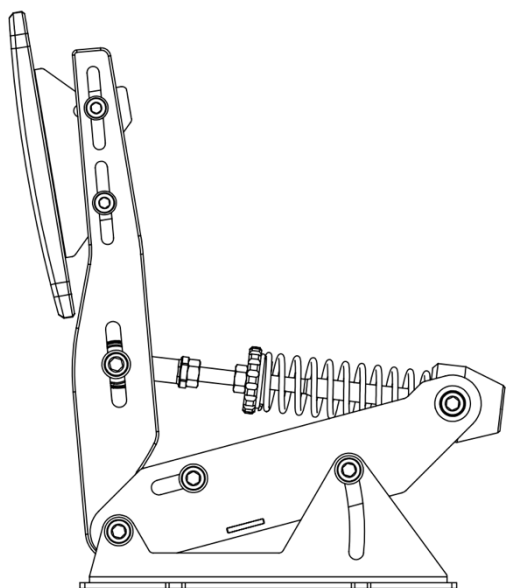
2 SETTING THE PEDAL ANGLE

Once mounted, the overall tilt angle of each pedal can be easily adjusted by slightly loosening the four screws securing the feet to the pedal.



Maximum forward tilt (+15 degrees)

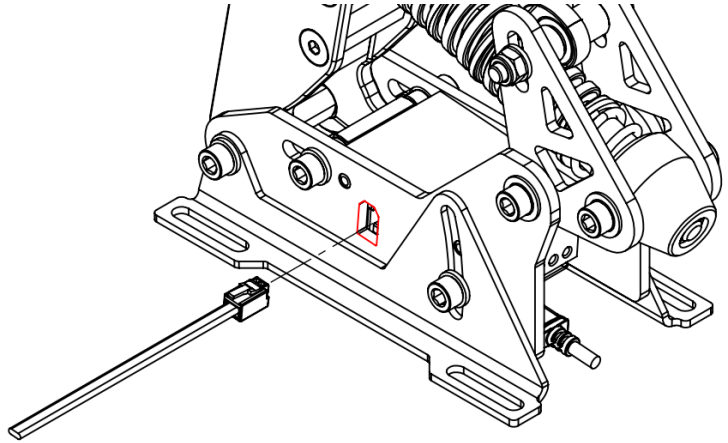
Minimum forward tilt (-5 degrees)



3 CONNECT CABLES

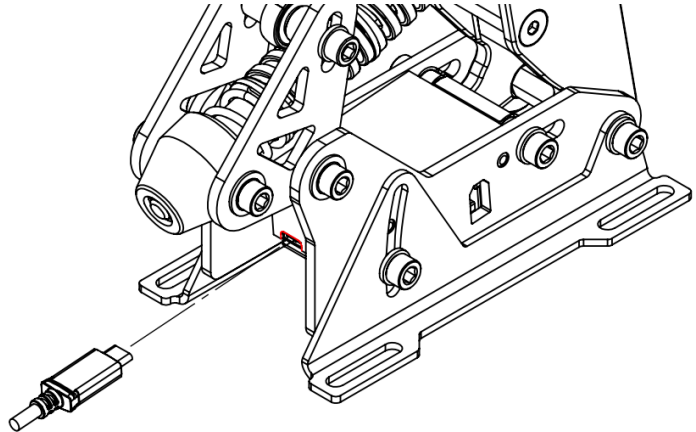
Before connecting the pedals to your PC, first connect the throttle and / or clutch to the brake pedal.

The throttle connects as shown, with the clutch on the opposite side:



The USB cable can be found in the accessory box.

Locate the USB C port at the rear of the brake pedal, and carefully connect the appropriate end of the cable:



Now you are ready to connect the pedals to your PC into an appropriate USB port.

Any USB 2.0 port (or faster) is suitable. If using an extension cable or passive USB hub, ensure that the total sum of cables doesn't exceed 5 metres.

Ensure that no cables are vulnerable to any crushing or tension and are secured with some slack to prevent damage to connectors. This is especially important for use with motion simulators.



4 INSTALL SOFTWARE (OPTIONAL)

PRL Pedals are plug-and-play and can be used immediately without installing the PRL software.

However, we strongly recommend performing a calibration using the PRL software before assigning the pedals in-game. You can download and install the latest software from our website. This can be found at the following link:

<https://purpleracelabs.com/downloads>

5 CALIBRATION

Without calibration, the pedals are supplied with a basic factory configuration and will not have dead-zones or pedal travel limits optimised for your specific setup.

Each pedal continuously outputs a high-resolution 16-bit signal. Depending on pedal type and mechanical adjustments, the signal at rest will not necessarily be zero, nor will maximum pedal travel necessarily correspond to the maximum output value.

Calibration allows the controller to correctly map your pedal's actual operating range to the full input range expected by games and simulations.

Many racing titles provide their own calibration process. For example, some games allow dead-zones to be established during pedal assignment by slightly depressing the pedal before recording the minimum position, or by stopping short of the mechanical end-stop when recording the maximum position. Other titles provide separate minimum and maximum input adjustments after the pedals have been assigned.

Because each simulation handles calibration differently, using the PRL software is the simplest and most reliable approach. Once calibrated within the PRL software, the pedals will report a correctly scaled output range and typically require no additional dead-zone adjustment when assigned in-game.



6 FIRST USE

Once installation and calibration are complete, launch your preferred simulation and assign the pedal inputs.

Before driving, verify the following:

- / Throttle input reaches 100% when fully depressed.
- / Brake input reaches the desired maximum value.
- / All pedal inputs return consistently to zero when released.
- / Pedal directions are correct and not inverted.
- / All pedal inputs return consistently to zero when released.
- / No pedal reaches a mechanical end-stop unexpectedly during normal operation.

The default factory (mechanical) configuration has been selected to provide a balanced and familiar driving experience suitable for most users.

If desired, pedal feel, travel, force and response characteristics can be adjusted later using the procedures described in the full manual.

We recommend spending time driving with the default configuration before making significant mechanical adjustments. This provides a useful baseline from which changes can be evaluated.

