



VIRTUAL RACE RIG PROFESSIONAL (VRR PRO)





VIRTUAL RACE RIG PROFESSIONAL (VRR PRO)

- High fidelity motion simulator with 6 degrees of freedom
- Low inertia, in-house designed carbon monocoque for uncompromised translation of race car dynamics
- Patented, gravity defying Sky Hook feature to improve vertical dynamics
- Unique yaw axis translation for improved feel of traction limit in every driving situation
- Bridging the gap between real-world and virtual racing through the use of re-engineered race car components
- Small footprint to ease transport and installation in confined spaces
- Culmination of race engineering, innovative design and world class driving from ABT, KLK and affiliated racing drivers

TECHNICAL SPECIFICATION

OVERALL DIMENSIONS

1.800 x 1.200 x 1.250 mm (LxWxH) assembled.
Disassembled width below 950 mm to ease transport.

WEIGHT

300 kg (excl. driver)

MAXIMUM SPEED

0.5 m/s for horizontal and 0.25 m/s for vertical dynamics

DOF

6+1 (yaw, roll, pitch, heave, surge, sway plus belt tensioner)

DISPLACEMENTS

Yaw: +/- 12° (depending on yaw centre pos.)
Roll: +/- 5.8°
Pitch: +/- 6.5°
Heave: +/- 26 mm
Surge: +/- 34 mm
Sway: +/- 50 mm

SERVO DRIVE SYSTEM

6 x 1.000 W for 6 DOF movements / 1 x 600 W for belt tensioner

DRIVER INTERFACE

Fanatec DD1 direct drive wheel base, AP racing pedal box tailored for simulator use

ERGONOMICS

Seat position and adjustment range in line with common GT3 cars

SOFTWARE

Windows-based operating system supporting a wide range of simulation software, pre-sets for Assetto Corsa Competizione, rFactor2 and iRacing available

DISPLAY SOLUTION

Tested for use with static triple screen monitor stand and VR goggles (HP Reverb G2).
Dome projection solution currently in development

MATERIALS

Ultra-light carbon seat for reduced inertia and unfiltered movements
with heavy steel frame for seismic mass



PATENTED FEATURES

- Variable controlled position of yaw axis to simulate over- and understeer
- Skyhook technology to eliminate gravity effects in vertical dynamics
- „Carbon Fibre Motion Backbone“ – lightweight user interface for high fidelity dynamics
- Fully integrated 4-point belt tensioner

ADVANTAGES FOR MANUFACTURERS & DRIVERS

- Comparable feeling to full vehicle simulators at much reduced costs and space requirements
- Eliminating the need to travel for simulator sessions – more time can be spend in the simulator actually driving
- Possible to hold sessions with multiple drivers on track at the same time
- Lower operating costs and easier use; no need for dedicated operator
- Customisable bodywork to reflect proprietary design language
- Access to professional hardware for (amateur) drivers previously unable to practice in full motion simulators

PLANNED FEATURES

- Seat fixed carbon dome projection system with FOW of 180°
- Active ABS pressure pulse in hydraulic brake circuit
- Integration of alternative force feedback steering motors and pedal boxes
- Reduction of transport width to 890 mm



**„JUST HAD THE MOST INSANE
SIMULATOR EXPERIENCE IN MY LIFE!!!”**

KELVIN VAN DER LINDE

using VR goggles (HP Reverb G2) and iRacing with an Audi R8 GT3 on the Nordschleife