

# SIMCELL AND V1-500 MOTION CONTROL PLATFORM.

## SimCell Simulator.

The monocoque survival cell, is manufactured with a carbon and composite construction to an authentic design; featuring the genuine seating position, custom 4 point seat belt harness and enough range of electronic pedal adjustment to accommodate drivers up to 2m tall. The Sim Cell has a professionally designed and manufactured force feedback steering system, which gives feedback to the driver so that they can feel the grip of the tyres and make lightning fast instinctual responses. The pedals feature a range of sensors that allow for braking realism. As standard our 20,000 hour rated, triple DLP projector system gives the driver an unbroken full visual field, projecting the wheels exactly where you would expect to see them and allowing the driver to assess the coming apexes, as well as see other competitors.

## V1-500 Motion Control System.

Designed for maximum performance with a payload of 500Kgs this award winning system delivers extremely fast, accurate velocities that enable the driver to engage with and believe in the experience. This is critical for a genuinely viable training tool and incredible driving experience. The V1-500 is based on our award winning dual laminar technology system, featuring longitudinal accelerations (surge) with the first layer, and fully independently controlled lateral accelerations that produce the sway and yaw functions comprising the second. It is these complex compound motions that are vital for car driving and give the driver the essential 'seat of the pants' feel for the road and the car's grip.

The SimCell and V1-500 Motion system is a complete solution for serious race **driver training** and commercial **racetrack** installations. Live2Race develops and produces all aspects of the hardware and software in house and can therefore tailor the system to your specific requirements, including our custom race control, online booking and 'TV Director' packages.

## Motion system Excursions.

### Layer 1

Surge	
Excursion Limits	+/- 0.6m
Velocity	+/- 1m/s
Acceleration	+/- 1.5G



### Layer 2

Sway (Side Slip)	
Excursion Limits	+/- 0.6m
Velocity	+/- 1m/s
Acceleration	+/- 1.5G



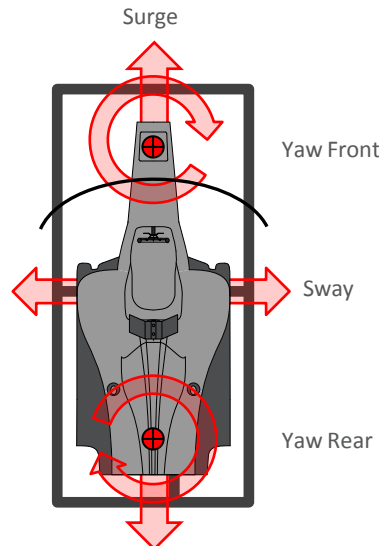
Compound Yaw	
Excursion Limits	+/- 0.6m
Velocity	+/- 27deg/s
Acceleration	+/- 45deg/s <sup>2</sup>



### 1 SURGE

### 2 SWAY

### 3 YAW



## Motion system Control tech.

Controls	
Feedback Technology	Digital EtherCat
Control Loop	1ms
Sim PC OS	Win (Real-time)
Motion Update Rates	500Hz

## Simcell data.

Controls	
Steering rotation	400 deg
Force Feedback	15Nm
Control feedback loop	500Hz
Brake Pressure	1000n

## Visuals.

Visuals	
Projectors	3 DLP
Screen Size	2000 mm x 620 mm
Field of View	122 deg

## DIMENSIONS.

Motion Platform Dimensions	
Height	430mm
Footprint	4000 mm x 1750 mm
Weight	450Kg

Overall Motion Platform with Sim Cell Dimensions	
Height	1530 mm
Footprint	4000 mm x 1800 mm
Weight	700Kg

Excursion Zone	
Footprint	4200 mm x 3000 mm

## Power.

Electrical Supply No.1 - 3 Phase Supply (Motion System)	
3 Phase Supply Voltage	400-415V AC
3 Phase Supply Frequency	50 - 400Hz
3 Phase Input Current - Continuous (Amps)	2.3A
3 Phase Input Current - Peak Inrush (Amps)	12A
3 Phase Input Power - Continuous (Watts)	1.6kW

Electrical Supply No.2 - Single Phase Supply	
Single Phase Voltage:	230 - 240V AC
Single Phase Supply Frequency	50Hz
Single Phase Peak Input Current (Amps)	6.8A@240v
Single Phase Power - Continuous (Watts)	1kW

