DRIVING SIMULATOR

SIMULATION & EVALUATION

The TGR-E driving simulator is a dedicated engineering tool, accurately reproducing the driving experience in a virtual environment. The driving simulator offers consistent and repeatable track conditions, ideal for vehicle development and determining setup directions. With professional drivers in the loop and highly repeatable conditions, the Simulator is both suitable for objective and subjective evaluation. Precise track features are accurately reproduced due to the LIDAR scanned track surfaces purposely developed for simulator use. A six-degrees-of-freedom motion platform simulates driving sensations and an electric feedback motor creates realistic steering torque. State of the art rendering computers offer visuals with high resolution and high refresh rates. Live telemetry and advanced data logging systems can supply the interactive pit crew with rapid information to efficiently support and run simulator sessions.

TGR-E has vehicle models of various types and the flexible software platform allows bespoke models to be created and easily integrated based on existing data and/or customer requirements (i.e. using Simulink, S-Functions, Dymola/ FMUs, IPG CarMaker, etc.). TGR-E also offers in house developed vehicle models, which can be adapted to suit a wide variety of customer requirements: passenger cars, hyper cars and race cars.

APPLICATIONS:
- Performance testing of aerodynamic changes based on wind tunnel results
- Performance and feel testing of mechanical set-up changes
- Set-up evaluation
- Driver training
- Driver behaviour analysis

TRACK LIST:

- Algarve International Circuit (Portimao)
- Aragon
- Autodromo Hermanos Rodriguez (Mexico)
- Autodromo Nazionale Monza
- Bahrain International Circuit
- Bettenfeld (German City)
- Circuit of the Americas (Austin)
- Circuit de la Sarthe (Le Mans)
- Circuit de Spa-Francorchamps
- Fuji Speedway
- Hockenheimring
- Nürburgring GP Circuit
- Nürburgring Nordschleife
- Paul Ricard
- Sebring
- Shanghai International Circuit
- Silverstone Circuit
- Vehicle Dynamics Proving Ground
- Large road course including motorway, split µ road surface, country road and town environment
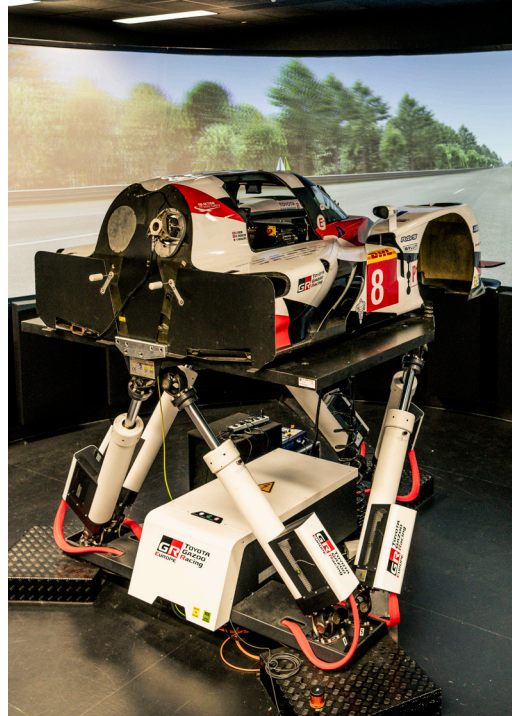
SPECIFICATIONS	
Screen	220° fixed
Projectors	5
Refresh Rate	100Hz
Resolution	1,400 x 1,050dpi
Latency	~40 milliseconds
PLATFORM	
Lateral Travel	~40milliseconds
Longitudinal Travel	±0.6m
Vertical Travel	±0.6m
Yaw	±38°
Roll	±27°
Pitch	±27°
Latency	~50milliseconds