



project: syntropy (Germany / KSA / Sweden / Singapore)
creates dvLED- / projection-based visual technologies and solutions for professional simulation and training environments, immersive XR environments, XR-CAVEs, media-based attractions and much more.

Project

360° Projection System for Renault ROADS Driving Simulator at Technocenter Paris

Customer

Groupe Renault, on behalf of Autonomous Vehicle Simulation

Project

Immersive 3D Stereo Visual Display Solution for a 360° projection screen for the ROADS (Renault Optimization Autonomous Driving Simulator) at Renault Technocenter near Paris, comprising 15 WQXGA dual-channel LED-projectors, domeprojection.com autocalibration + domeprojection.com VIRES warp&blend.

Project Details

On behalf of Autonomous Vehicle Simulation (AVS) – a joint-venture formed together with Groupe Renault and Oktal, a subsidiary of Sogeclair, a French aerospace and simulation company based in Toulouse – we have designed and implemented an immersive 15 channel 360° 3D Stereo Visual Display System for the ROADS (Renault Optimization Autonomous Driving Simulator) at Renault Technocenter near Paris.

The VDS is equipped with a fully automated calibration system including color calibration from domeprojection.com. It also comprises the domeprojection.com warp&blend solution for the VIRES virtual test drive image generators and dynamic warping capabilities.

Together with the BMW High Fidelity-, the BMW High Dynamic and the Daimler AG MBS Driving Simulators we have now been delivering Visual Display Solutions for almost all technologically leading driving simulators in the world.

About the ROADS - Renault Optimization Autonomous Driving Simulator

The ROADS Driving Simulator is a 9-degree-of-freedom (9DOF) system with fast electric linear power systems for the 30 meters long rails in two directions, a ± 180 yaw-table for urban driving, a complete fiber-carbon 360° dome with our immersive display system, as well as a complete car cockpit equipped with head and eyes tracking systems.



Leading Provider of Next Generation Visual Display Systems

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ROADS is used by Groupe Renault and the Renault-Nissan Alliance for autonomous vehicle development testing in a virtual environment. In particular, man-machine interfaces (MMI) are validated and tested for its driver acceptance.

Specification of the ROADS Driving Simulator:

- highly dynamic longitudinal and lateral acceleration of up to 1.0 g
- sled length of 30 metres
- motion system with ± 180 yaw table
- hexapod can carry 6 tons of payload.



project: syntropy's visual display solutions for

- FMS FULL-MISSION-SIMULATORS
- FFS FULL-FLIGHT-SIMULATORS (EASA Level D)
- CT COCKPIT SIMULATORS
- HELICOPTER FLIGHT SIMULATORS
- FNPT / FTD TRAINING SIMULATORS
- COMBAT SIMULATION
- JFST ACTION TRAINERS
- JTAC TRAINERS
- ATM TOWER SIMULATORS
- DRIVING SIMULATORS
- SHIPS BRIDGE SIMULATORS
- INDUSTRIAL SIMULATORS
- RESEARCH SIMULATORS

full-service for S&T visual display solutions

project: syntropy offers turnkey solutions and full-service throughout your entire project:

- CONSULTING
- CONCEPT AND DESIGN
- APPLICATION DEVELOPMENT
- CONSTRUCTION, MANUFACTURING, INSTALLATION
- ADVANCED SOLUTIONS FOR NVG STIMULATION
- FULLDOME SYSTEMS
- tailor-made dvLED-/Projection-based VISUAL DISPLAY SYSTEMS
- AFTER SALES SERVICES
 - training
 - maintenance and support
 - tailored service-level-agreements (SLA)
 - spareparts supply

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