

**project: syntropy (Germany/Sweden/Shanghai-Singapore-Taiwan/USA)** creates technologies and solutions for professional simulation- and training environments, interactive immersive media based attractions, xD theatres, planetariums and multimedia experiences.



### 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 Sogclair, 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

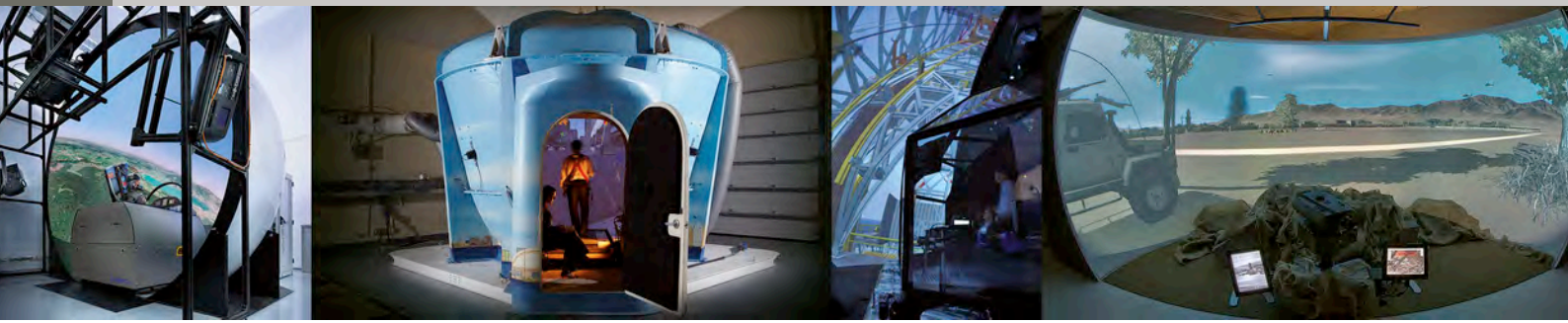
The ROADS Driving Simulator is a 9-degree-of-freedom (9DOF) system with fast electric linear power systems for the 30 meters long rails in two directions, a  $\pm 180$  yaw-table for urban driving, a complete fiber-carbon 360° dome with our immersive display system, as well as a complete car cockpit 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  $\pm 180$  yaw table
- hexapod can carry 6 tons of payload.



**project: syntropy's visual display solutions for**

- FMS FULL-MISSION-SIMULATORS
- FFS FULL-FLIGHT-SIMULATORS
- CT COCKPIT SIMULATORS
- HELICOPTER SIMULATORS
- TARGET 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:

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- FULLDOME SYSTEMS
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- AFTER SALES SERVICES
  - training
  - maintenance and support
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  - spareparts supply

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