



**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**  
**TU Munich, Rotorcraft Simulation Equipment (ROSIE) Helicopter Simulator Visual System**

**Customer**  
 The Institute for Helicopter Technology, Department of Aerospace and Geodesy, Technical University Munich/Germany.



**Project**  
 Turnkey visual display solution for helicopter simulator (Rotorcraft Simulation Equipment) equipped with a 5m diameter curved screen, six-channel 4k projection system, including a patented domeprojection.com ProjectionTools autocalibration.

**Project Details**  
 The Institute for Helicopter Technology, at the Technical University Munich operates a helicopter simulator (Rotorcraft Simulation Equipment) equipped with a 5m diameter curved screen.

project: syntropy delivered a 6-channel visual display system – at that time equipped with projectiondesign F22 WUXGA projectors – which provides a large field of view of 200° horizontal and +30°/-50° vertical on the spherical screen. The complete system was calibrated using the patented domeprojection.com ProjectionTools auto-alignment system.

Meanwhile we upgraded the visual display system on behalf of ESG GmbH to a new high resolution standard using Barco FL40-4k projectors and a ProjectionTools-Update.

The original cockpit of a Bo105 offers a realistic environment for the pilot and can be used for testing of existing and future cockpit design simulations. It is used for Pilot-In-The-Loop simulation of flight close to ground and in obstacle proximity.

**About the Institute for Helicopter Technology**

The Institute for Helicopter Technology, Faculty of Mechanical Engineering, at the Technical University Munich provides research and education in essential knowledge of helicopter design and architecture, systems engineering, accreditation and certification. Helicopter-specific challenges are addressed in



Leading Provider of Next Generation Visual Display Systems

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research and education, including helicopter aerodynamics and dynamics, flight mechanics and controls, design and architecture, systems engineering and certification.

**Videolink:** <https://youtu.be/1D4jG1beIFs>



**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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