

project: syntropy (Germany / Sweden / Shanghai / Singapore) creates AV technologies and solutions for professional simulation- and training environments, interactive, immersive media based attractions, flying theatres, planetariums as well as XR-CAVEs. Many years of development and over 200 projects world-wide have also resulted in highly scalable state-of-the-art fulldome attractions.

Project

Mercury Towers Malta Flying Theatre Fulldome Projection- and AV System

Customer

Simtec Systems GmbH Braunschweig/Germany, for the end customer St. Julian's Mercury Towers, Malta.

Project

Delivery of an AV solution for a tilted 10m fulldome screen, comprising a 4-channel 4K UHD-3-Chip-DLP projection system with media server, an autocalibration system, and an 8+2 multi-channel surround sound system.

Project Details

Immersive Fulldome Projection Solution for Flying Theatre

The new flying theatre in Malta's landmark Mercury Tower development is a small but state-of-the-art visitor attraction and features a Simtec Systems 6 DOF HEXaFLITE mini system for a group of 20 visitors in two 10-person gondolas.

We delivered a 4k fulldome AV solution for the 10m dome screen comprising a 4-channel BARCO UDM 4k15 UHD-3-Chip-DLP projection system with media server, a ProjectionTools autocalibration system, and an 8+ multi-channel surround sound system.

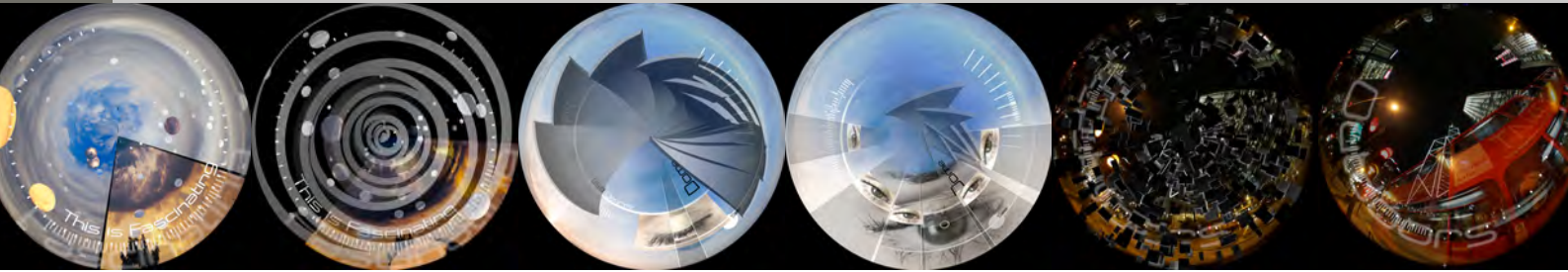
Our work included concept and system design, manufacturing of projector mounts, delivery, installation and implementation of the complete AV system incl. calibration as well as staff training.

The flying theatre was not part of the original plan for the mixed-use development of Mercury Towers. Adding the attraction to a space between the grade 2 listed Mercury House and the new, modern tower created significant challenges: the angled room meant every component - screen, motion platform, and AV systems - had to be customised to fit. The motion platform is still based on a 6-DOF-motion system, but much more compact than usual. The screen had to be adapted and tilted to make space for the projectors.

Leading Provider of Next Generation Immersive Flying Theatres

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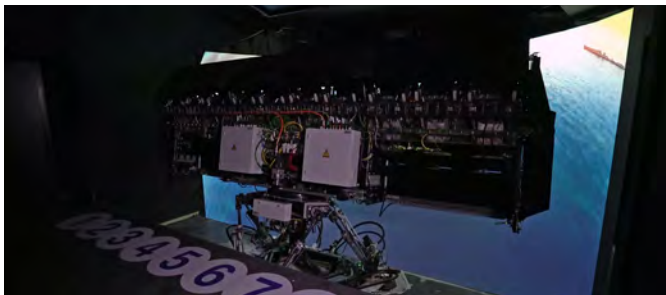


However, the key to success in flying theatre projects is perfect synchronisation between the movement of the ride system and the media, which is why the immersive AV system is using high-speed network synchronisation throughout with the motion platform movements. Thus, the seamless blend of motion, visuals, and sound creates an experience that immerses riders and leaves a lasting impression.

About Mercury Towers & the Odyssey Malta Attraction

Mercury Towers is a striking new development crafted by Zaha Hadid Architects. It was one of Hadid’s final creations before she died in 2016. At 121 meters (397 feet), it is Malta’s tallest building. It features 32 stories and is home to both residential areas and the luxurious ME Hotel by Meliá. Opened in 2023, the initial phase included a three-level shopping mall and a square. The attraction Odyssey Malta soft-opened on 16 October 2024.

The building’s visitor attraction starts with a multi-show dark walk experience exploring the country’s heritage. Visitors will encounter some of the world’s oldest manmade structures and explore significant battles that resonated across Europe through these stories. They will better understand the importance of the fortifications in Valetta, Cittadella and Mdina and will also uncover the history of Mercury House. It served as a vital underground Control Centre and communication hub during WWII. This is followed by a captivating multi-projector display that celebrates contemporary Malta.



Turnkey Visual Solutions for Simulation, Training and Media Based Attractions

project: syntropy offers turnkey projection solutions, tailor-made systems and full-service throughout the entire project.

- CONSULTING
- CONCEPT AND DESIGN
 - creative
 - interactive
 - media
 - engineering
 - application
- DEVELOPMENT
- ENGINEERING
- CONSTRUCTION AND INSTALLATION
- AFTER SALES SERVICES
 - training
 - maintenance and support
 - tailored service-level-agreements (SLA)
 - spareparts supply

■ **MEDIA BASED ATTRACTIONS**

XD FLYING THEATRES - XD 360° & 720° ATTRACTION DOME
 CINEMAS & GLOBES - INTERACTIVE VISITOR ATTRACTIONS
 - MOTION THEATRES - DARK RIDES - PLANETARIUMS -
 MEDIA FACADES - IMMERSIVE TUNNELS & IMMERSIVE ENVIRONMENTS - PROJECTION MAPPING - GUN SYSTEMS

■ **SYNTOUCH RADAR** (LIDAR BASED MULTITOUCH)

■ IMMERSIVE MIXED REALITY **XR-ENVIRONMENTS** & VR/AR-TRACKING TECHNOLOGY DEVELOPMENT

■ **VISUAL SOLUTIONS FOR SIMULATION & TRAINING**

FMS FULL-MISSION-SIMULATORS - FFS FULL-FLIGHT-SIMULATORS - CT COCKPIT SIMULATORS - HELICOPTER SIMULATORS - TARGET SIMULATION - JFST TRAINERS - JTAC TRAINERS - ATM TOWER SIMULATORS - DRIVING SIMULATORS - SHIPS BRIDGE SIMULATORS - INDUSTRIAL SIMULATORS - RESEARCH SIMULATORS - XR-CAVES

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