





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

## **Project**

# Toronto Institute for Rehabilitation CEAL iDAPT StreetLab Research Simulator

#### **Customer**

Toronto Rehabilitation Institute, iDAPT Centre for Rehabilitation Research, CEAL Driverlab, Toronto/CDN on behalf of International Development of Technology b.v.

#### **Project**

Turnkey projection system for the VR visual dome for 'Streetlab' motion base treadmill, featuring five LED front projection channels and one LED floor projection channel including a patented domeprojection.com ProjectionTools autocalibration.

#### **Project Details**

CEAL is a huge subterranean research lab located beneath Toronto Rehab's University Centre, being the Centrepiece of the iDAPT Centre for Rehabilitation Research. We provided the Visual Dome Solution for the Streetlab - an immersive virtual environment featuring a treadmill and rolling road on a motion base.

CEAL features the world's first hydraulic motion simulator, which uniquely combines motion, visual and aural simulation techniques to create realistic and challenging environments that can mimic everyday challenges faced by older people and those with disabling injury or illness.

The 6-degree-of-freedom motion platform can be configured with three different payloads. The Streetlab payload features a 180 degree field-of-view curved visual projection screen combined with a treadmill interface and a wheelchair simulator. Its display system is a virtual reality dome where people can walk through virtual downtown Toronto while being challenged by busy intersections and obstacles on the street. project: syntropy was engaged to engineer and deliver the complete projection system for the VR dome, featuring five LED front projection channels and one LED floor projection channel including the patented domeprojection.com ProjectionTools auto-calibration system. Integration and initial calibration was done in Canada by our team.

Leading Provider of Next Generation Visual Display Systems





### **About Toronto Rehabilitation Institute**

The Toronto Rehabilitation Institute, part of the University Health Network (UHN), operates a \$36-million-dollar research centre called iDAPT (Intelligent Design for Adaptation, Participation and Technology) Centre for Rehabilitation Research. iDAPT Centre for Rehabilitation Research is one of the world's most technologically advanced rehabilitation research facilities. Interdisciplinary scientists and research students from a broad range of engineering and clinical disciplines develop new methods, technologies and treatments for rehabilitation.

Videolinks: https://youtu.be/560MHxpwlvs

https://youtu.be/1q8M\_6fJw9Q https://youtu.be/KvRxnhqK-yE https://youtu.be/rwVSEgJ5muw





## 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:

- **CONSULTING**
- **CONCEPT AND DESIGN**
- **APPLICATION DEVELOPMENT**
- **CONSTRUCTION AND INSTALLATION**
- ADVANCED SOLUTIONS FOR NVG STIMULATION
- **FULLDOME SYSTEMS**
- **TURNKEY DIGITAL CINEMA**
- **AFTER SALES SERVICES** 
  - training
  - maintenance and support
  - tailored service-level-agreements (SLA)
  - spareparts supply

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