



EXTENDED REALITY LAB

Transforming manufacturing through innovative technology



About Us

The eXtended Reality (XR) Lab at Wichita State University's National Institute for Aviation Research is part of the 3DEXPERIENCE Center. It is a unique 3D environment for product evaluation and use scenarios. It is home to the largest flexible virtual reality cave in the world, allowing users to interact with full-scale depictions of physical objects the size of commercial aircraft. Compatibility with multiple graphical software packages allows users to import various file formats. The lab offers a full range of services to assist clients, available fully staffed at a flat user-occupancy hourly rate. Adjacent collaboration rooms are available for client design teams for design sprints or web-accessed design reviews. The VR lab is U.S. ITAR compliant.

Partners

- BCG
- Dassault Systèmes
- Optis
- Mechdyne
- Spirit AeroSystems

Collaboration Rooms

- 7 workstations
- Wall display can simultaneously project 50+ document sources and 10 hardware sources (laptops and PCs)
- Speakers, webcam, phone, microphone for conference calls
- Secure (ITAR-compliant) room available through badge only

CAVE

- Largest flex CAVE in the world
- 19ft x 10ft x 10ft
- 12 projectors
- Head and wand tracking
- 8-camera ART system

zSpace Holographic display

Motion Tracking System

- 12ft x 18ft tracking area
- Accommodates up to 4 people
- 2 full body tracked users
- 4 head and dual wand tracking
- Finger tracking for 2 users
- 12-camera ART system
- 4x Vive Pro HMDs
- 2x VRgineer's XTAL HMDs

Uses

- Critical Design Review
- Ergonomic Studies
- Facility Planning/Certification
- Flythrough
- High-end Data Visualization
- Product Development (Evaluation, Use Scenarios)
- Prototyping
- Training
- User Experience Testing
- Walkthroughs

Industries

- Architecture
- Construction
- Design
- Law Enforcement / CSI
- Manufacturing

WHERE TEST PLANS BECOME RESULTS