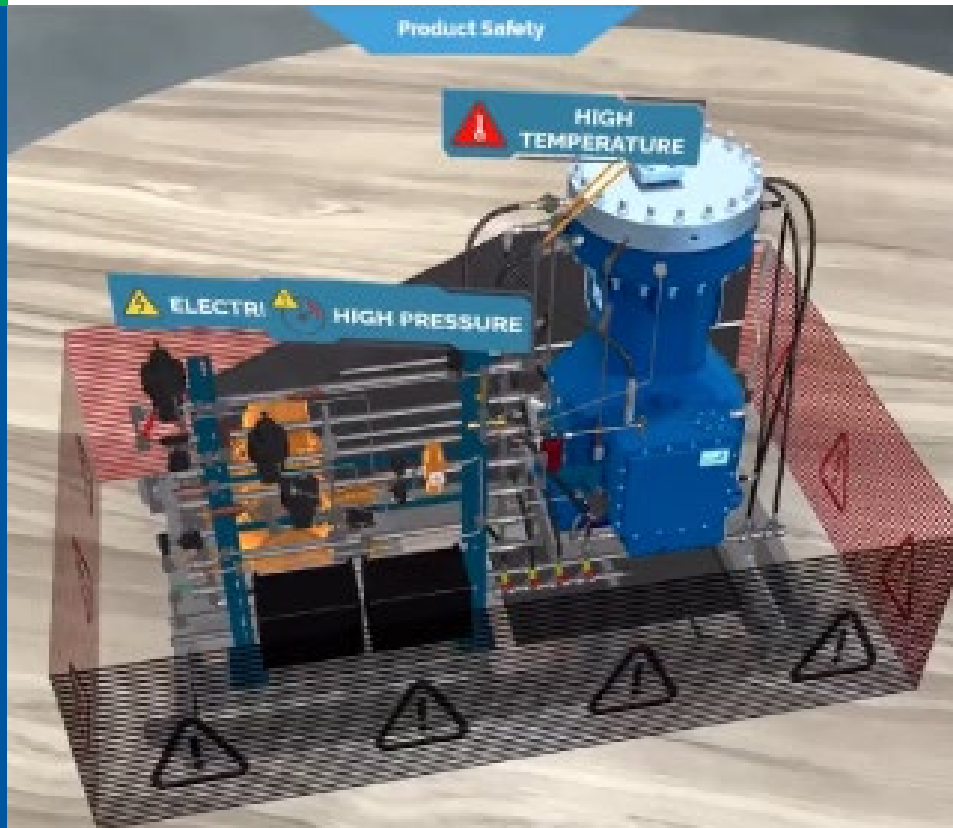GTI ENERGY
NextGen
TRAINING CONSORTIUM

January 14, 2025

3D Visualization with Augmented Reality

Jayant Mathur, *Sr. Program Specialist*

Meeting Agenda

- Introduction to Augmented Reality (AR)

- Features and capabilities

- Benefits of the technology and Use cases

- Development and distribution

- Open forum and wrap-up (not recorded)

 – *We have a new GTI Energy offered course on innovative training technologies!*

Photo from the Meta blog post on Orion:
Orion: True AR Glasses Have Arrived | Meta Quest Blog | Meta Store

Introduction to Augmented Reality

"Digitally overlaying visual and auditory 2D/3D content onto the real-world environment", augments and enhances one's perception of the physical world.

Training about hidden assets can benefit from digital augmentation of the physical space.
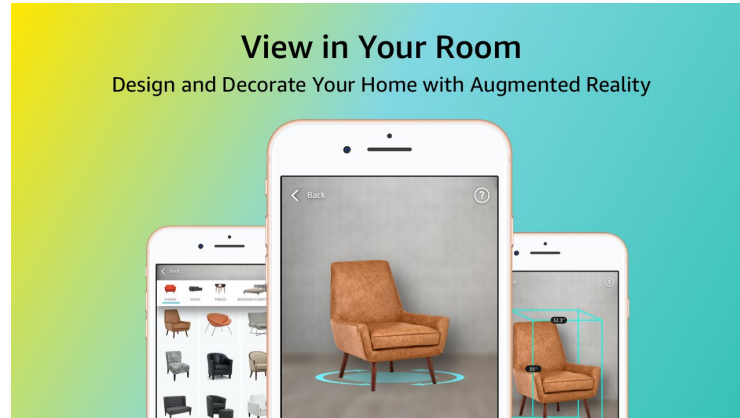
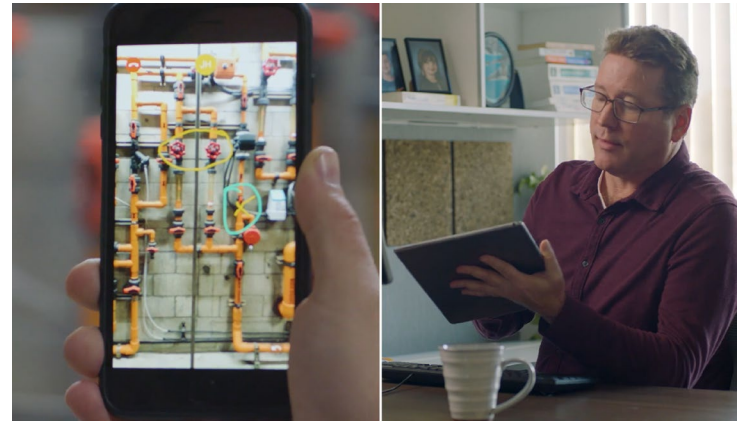# Features and Capabilities
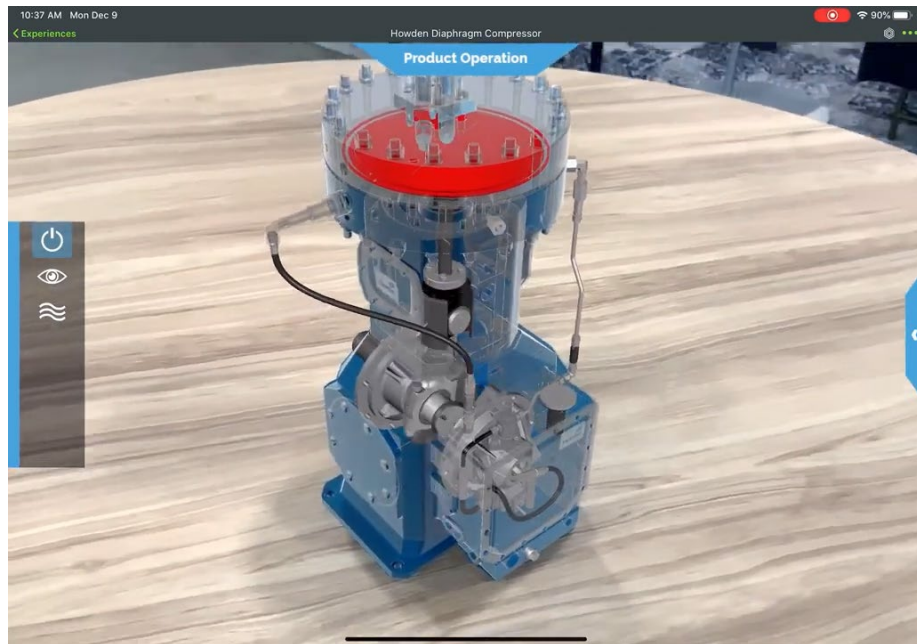
Object recognition

Marker recognition and geo-location positioning

Benefits of the Technology and Use Cases

Retail

Maintenance and Repair

Construction

Photos by (left to right) Amazon.com, Vuforia Chalk is Here! – YouTube video, and Construction with Magic Leap 2 + Argyle – YouTube video.
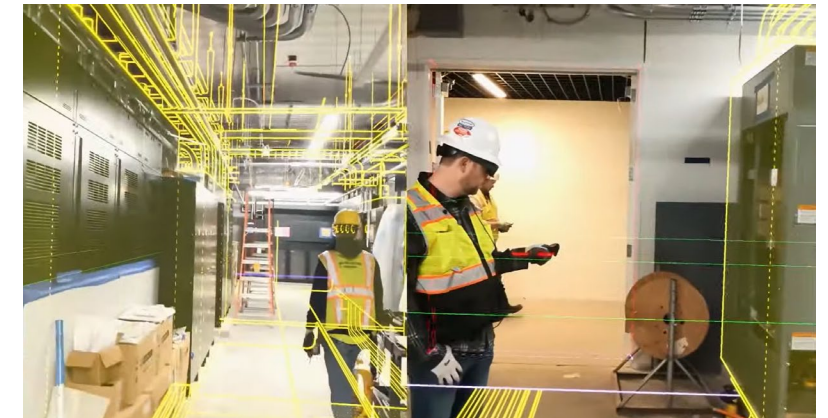
Visualizing digital twins and assets in physical spaces promotes informed decision-making.

Benefits of the Technology and Use Cases

Topics well-suited for AR-aided training

- Damage Prevention

- Facility Locating and Marking

- Site Surveying and Navigation
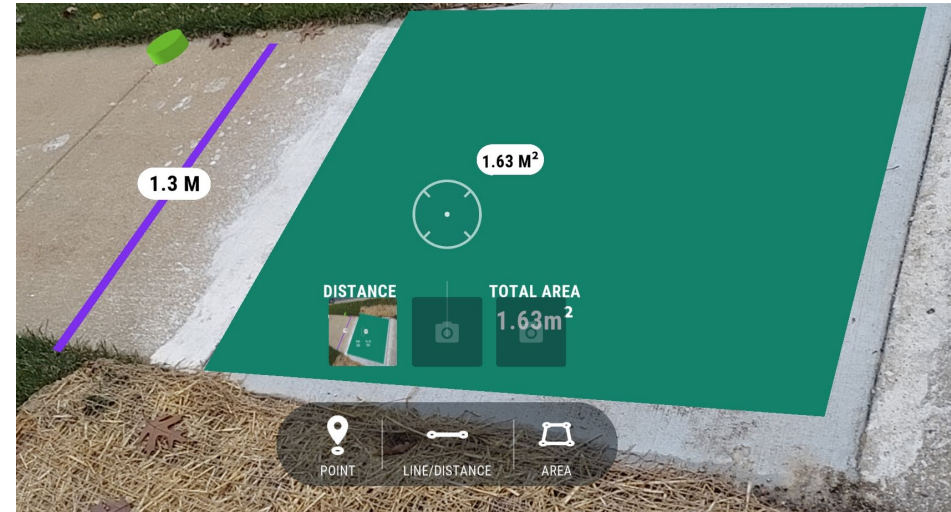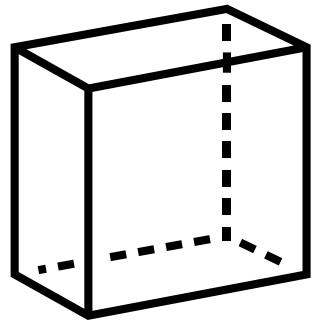
- Excavations

- Machine Operations and Maintenance

Photo (bottom right) from the Augmented Reality Transforms Employee Training and Quality Inspection at Magna – YouTube video.

Development and Distribution

Import into an augmented reality (AR) development environment

Collect or produce 3D assets

(e.g., CAD models, 3D scans, digital-twin data, etc.)

Mooney Regulator

Augmented Reality is only available on mobile or tablet devices:

Supported devices: iPhone 6S+ & iPad 5+ on iOS 12+ and Android 8.0+ with ARCore 1.9 support
Open this page with such a device to experience AR.

Open with QR Code:
Scan this code to open the model on your device, then, tap on the AR icon.

Leverage a content distribution platform, serving as the primary location to **run** and **deploy** to devices
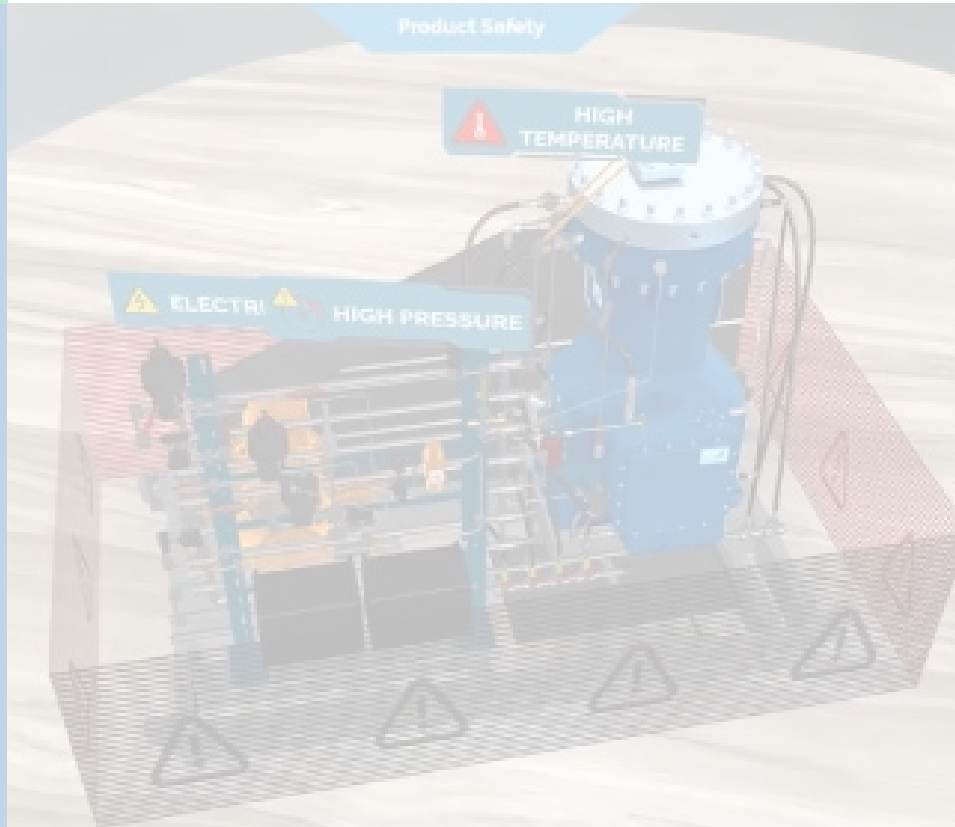

Non-immersive devices

Digitally immersive devices

Thank you. **Questions?**

Or share a little about these:

- Was this your first time learning about Augmented Reality?

- Did you notice any technology limitations that would make you hesitate to use it at your organization?

- What was something new or interesting in today's demonstration?

New Course on Training Technologies

GTI ENERGY

March 21, 2025

Innovative Training Technologies: Exploring Tools and Applications

Virtual Instructor-led Training

Course Overview:

This engaging training program introduces participants to cutting-edge technologies that are transforming the learning and development landscape, particularly with utilities, pipeline operators, and trade schools.
Attendees will gain practical insights into how these innovations enhance training effectiveness, boost learner engagement, and improve knowledge retention.

Target Audience:

- Training and Development Professionals
- Instructional Designers and Educators
- Technology Enthusiasts
- Organizational Leaders
- Technical Trainers

When

March 21, 2025
F: 10:30 am-1:15 pm CST

Course Format

Virtual Instructor-led Training

CEU 0.25 | PDH 2.5

Registration Cost

$125

Register Now ›

Scan the QR code to register for this course!

Or contact Ray Deatherage at rdeatherage@gti.energy