

AUGMENTED REALITY MEDICAL TRAINING PROTOTYPE (AR MTP)

5G TELEMEDICINE

The goal of this effort was to develop and demonstrate a 5G AR medical training prototype (MTP) that can provide on-demand, real-time and secure access to high-quality virtual medical training with remote training monitoring using AR technology.

This cutting-edge innovation is intended for military personnel, leveraging 5G-enabled technology and cloud architectures combined with the high TRL capabilities of Tactical Combat Casualty Care (TC3Sim).

ECS developed an AR use case for TC3Sim, creating an immersive and realistic training environment. The prototype utilizes a microservices architecture, offering unparalleled support for cloud-native approaches and infrastructure-as-code. Instructors can effortlessly manage groups of learners, with one instructor supervising up to 20 students, making AR MTP the perfect solution for one-to-many training scenarios. The user interface is designed with utmost clarity, following the MARCHPAWS doctrine for virtual medical interventions, allowing learners to make critical decisions in high-pressure situations.

AR Medical Training Prototype

- One-to-Many approach for teleteaching
- Up to 20 students per instructor
- Custom Deployment Environments
- Microservices Architecture
- Cloud-Native and Edge deployment
- Infrastructure-as-code management
- Dynamic Room Scanning and Setup Wizard
- HoloLens2 Hand Gesture Support
- MARCHPAWS mnemonic radial interface
- Trauma Scenario Integration Complete; Additional trauma and medical scenarios designed and validated

