E-LifePod

"Hospital-to-Patient" Personnel Transportation Pod

SABRN

Technology overview:

Challenge: Extraction of unwell or injured personnel from hostile and austere environments where urgent clinical assessment, diagnoses and treatment is not possible because of traditional "Patient-to-Hospital" model.

Solution: SABRN's E-LifePod Personnel Transportation Pod creates a "Hospital-to-Patient" model which will save lives by supporting an on-board Medic with several key capabilities.

Operational and Performance Capabilities:

- On-board two-way communication systems with Medical and Surgical teams using AR capability for clinical support.
- Diagnostic and monitoring capabilities including ultrasound and XR.
- On-board therapeutic capabilities including respiratory and cardiovascular support.
- Remote-control and/or autonomous navigation and transportation systems to expedite patient extraction.
- Long-term (years) energy capability without requiring recharging.
- State-of-the-art air purification systems.

Contact

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Collaborations

BROKK Security and Rescue Solutions · ELECTROCAD AUSTRALIA · AES · University of South Australia | Future Industries Institute · Australian Industry & Defence Network QLD AIDN · PHOSENERGY · Rowlands · PlasmaShield. · MICRO-X · Defence Teaming Centre Connecting • Developing • Advocating

Artificial Environment Simulations Pty Ltd (AES)

Advancing Medical, Surgical and OH&S Training

Technology overview:

Challenge: Current strategies for training Medical, Surgical, and OH&S procedures in austere or hostile environments are limited in scope, capability and capacity, and can result in significant gaps in skills.

Solution: The AES immersive VR, AR and MR technologies can complement current training, and significantly improve outcomes of Medical, Surgical, and OH&S procedures by using deep reinforcement learning principles and thereby increasing the likelihood of candidates achieving competency and maintaining currency of core skills.

Operational and Performance Capabilities:

- Enhance clinical education for individuals and teams.
- Mimic austere and hostile environments or clinical situations using Immersive Environment Simulation Modules using Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR).
- Objective measurements of clinical decision-making, stress responsiveness, and 'virtual patient' outcomes.
- Quantitative assessments of obtaining competency and maintaining currency.
- Scenario-based linear narratives using gamification principles.
- Increased exposure = instinctive, engrained, automatic responses without environmental distractions.

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