



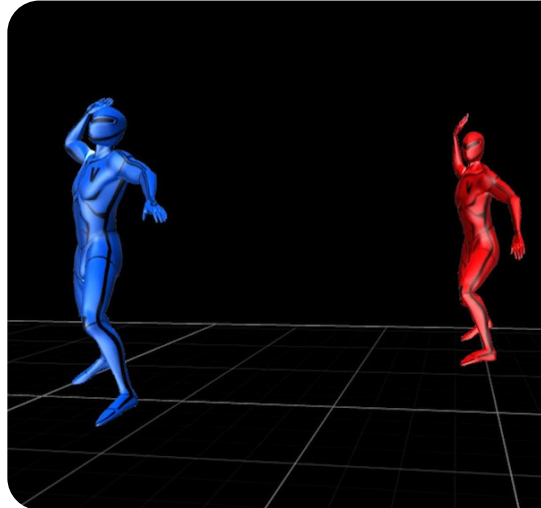
EXPERIMENTAL VERIFICATION & VALIDATION ASSESSMENT LABORATORY (EVVAL)

LABORATORY INFORMATION FACT SHEET

CONTACT US:

Robert DeMarco

Email:
robert.m.demarco.civ@army.mil
973-724-2665
v.02



DEVCOM Armaments Center Tactical Behavior Research Laboratory (TBRL) investigates Soldier touch points of armaments systems providing the analytical proof of performance effectiveness.

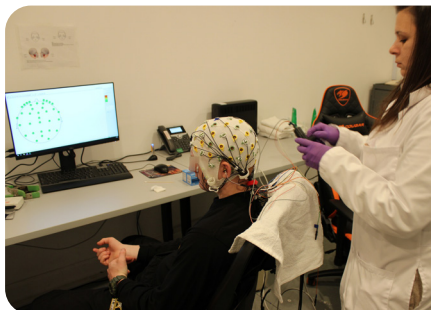
TECHNOLOGY/FACILITY DESCRIPTION:

The EVVAL, one of the Tactical Behavior Research Labs is equipped with technological tools to conduct human-in-the-loop experimentation throughout the development cycle of armament systems. The 30' x 70' configurable space provides enough

room to test several persons, teams, and/or squads simultaneously.

The lab primarily uses tactically relevant virtual scenarios presented in Virtual Reality headsets or projected onto screens to facilitate the assessment of armament systems. The measurement of User performance during this testing paradigm provides analytical assessment of the armament system's effectiveness at various points of the development cycle. These capabilities allow us to analyze design choices based on factual empirical data versus best estimations.

Behavioral coding software along with other statistical analysis tools are used to visualize and identify relationships within the recorded signals and provide models and algorithms for implementation in trade-off studies and larger battle simulations.



EQUIPMENT AND EXPERTISE AVAILABLE:

- Motion Capture System
- Psychophysiology and Wireless Physiology Sensors
- Eye Tracking Systems
- Dual 12K 360degree cavesBiomechanical assessment
- AR/VR/MR environments
- Scenario development in Unreal & Unity
- Measurement and automation of experimental design
- Force feedback weapon systems

PROGRAMS:

- NGIFC
- SCOPE
- AFCT
- FVL-ARAPS
- FASCAM
- DHS S&T
- DHS NUSTL
- USSOCOM Biotechnology and Human Interface Capability

COLLABORATIONS:

- DEVCOM ARL - HRED
- Imperial College London
- SUBTDU
- Gaming Interactive Technology and Multimedia (GITM)
- Systems Engineering Directorate (SED)
- USMA Innovation Center, West Point
- Asymmetric Warfare Group
- DEVCOM Analysis Center
- DEVCOM SC