

# Extended Reality Simulation Platform (ESP™) for Humanoid Robots in the Loop (HRITL) & Humans in the Loop (HITL) for ISRU and ISAM

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Intelligence for heavy equipment to extract raw materials and build structures in cis-Lunar space and beyond will be provided by control systems, AI/ML, and humans. We propose Tele-Robotics HITL (Human In The Loop) operated or monitored HRITL (Human-Robot In The Loop) based on costs and planned safe places for human operators, monitors, and support in LEO and Low Lunar Orbit platforms.

ESP™ is an XR simulator designed for ISRU and ISAM scenarios where semi-autonomous robots operate, allowing remote operators to control or supervise tasks such as deployment and assembly of structures. Our software enables multi-level system planning, training, and operational testing, and implementation including Capability Assessment and Validation Environments (CAVEs).

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Video Demo

