

Category Award Robotic & Drones

j-mex Digital Twin & Teleoperation Engine



J-MEX Inc.

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Winning Reason

Powered by a self-developed 9-axis IMU fusion technology, this collaborative engine transforms human motion capture into parameterized joint mapping. It provides a seamless solution for remote robot teleoperation, control simulation, VLA (Vision-Language-Action) training, and digital twin synchronization. Fully compatible with ROS2, NVIDIA Isaac ROS, NVIDIA Jetson, Omniverse, and Isaac Sim, the system operates independently of visual obstructions or lighting conditions. Designed for smart manufacturing, human-robot collaboration, and hazardous environment operations, this engine significantly reduces the time and cost required for robotic pre-training.

Product Feature

As a robust Digital Twin and Teleoperation Engine, the j-mex solution delivers unparalleled synchronization and industrial-grade precision. Powered by proprietary AI attitude fusion algorithms, the system maintains exceptional stability during wide-range dynamic movements, effectively eliminating cumulative errors inherent in standard sensors. Its specialized low-latency architecture ensures millisecond-level responsiveness—the critical foundation for seamless Human-Robot Collaboration (HRC) and high-precision teleoperation. Furthermore, this engine is deeply integrated with leading ecosystems like NVIDIA Isaac Sim. Through optimized APIs, developers can instantaneously bridge physical dynamics into virtual factory environments. This serves as a cornerstone for Embodied AI, generati