

High-Precision Real-Time Motion Control on IPC

WMX R2 Real-Time Motion Control Stack

WMX R2 Real-Time Motion Control Stack is a software-defined motion control platform optimized for Intel® architecture IPCs, including Intel® Core™ Ultra Series 3 processors. Leveraging Intel® TCC and Intel® ECI technologies for deterministic compute and communication, WMX R2 delivers industrial-grade real-time performance with microsecond synchronization and stable low-latency execution—without dedicated motion-control hardware.

Integrated with Intel's Open Edge Platform and Robotics AI Suite, WMX R2 enables AI perception, planning, and precision motion control on a single Intel-based IPC. This unified architecture maximizes Intel's heterogeneous compute across CPU, GPU, and NPU while ensuring deterministic control at the actuation layer.

With native EtherCAT support and ROS 2 compatibility, WMX R2 serves as the real-time execution layer powering scalable Physical AI systems in robotics, semiconductor tools, and advanced manufacturing.



Key Intel-Enabled Features



Microsecond Sync



IPC-Native Control



Real-Time OS Support



Physical AI-Ready

- [Intel® Core™ Ultra Series 3 Processors](#) and [Robotics AI Suite 4](#) unify AI real-time motion control.
- [Open Edge Platform](#) enables software-defined motion control, replacing dedicated motion hardware.
- [Intel® Edge Controls for Industrial \(Intel® ECI\)](#) supports parallel motion workloads.
- [Intel® Time Coordinated Computing \(Intel® TCC\)](#) enables microsecond synchronization.

By leveraging Intel® technologies, WMX R2 by Movensys bridges the gap between AI and real-time automation, enabling intelligent robotics on standard industrial PCs without the complexity of traditional automation architectures.

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MOVENSYS



*WMX R2 by Movensys replaces proprietary motion controllers with **software-defined AI and real-time control for ROS 2-based robotics** on standard Intel® platforms.*

Ordering Guidance:

- [WMX R2 Download](#)

Country/Geo: Worldwide

Edge Verticals: Manufacturing; Robotics

Edge Use Cases: Operational Efficiency; Process Optimization; Vision Guided Robots

Learn more:

- [MOVENSYS Solution Web Page](#)