circulus × intel

Real-Time Edge AI OS for Smart Robotics Control Speed

ARCos

Enable real-time, multimodal AI robotics with ***on-device autonomy and secure, low-latency decision making***

ARCos is an advanced robotics cognition operating system designed to enable real-time, autonomous decision-making for industrial robots in manufacturing environments. By integrating multimodal AI—including vision, audio, and language—ARCos delivers situational awareness, voice-driven task execution, and adaptive robotic actions directly on-device.

Built on Intel® Core™ Ultra Series 3 Processors and Intel® Arc™ graphics, the solution leverages CPU, GPU, and NPU resources to efficiently run vision-language-action models and real-time analytics at the edge. Combined with the OpenVINO™ toolkit, ARCos ensures optimized AI inference, low latency, and scalable deployment without reliance on cloud connectivity. This enables secure, resilient operations, reduces downtime through automated failover, and accelerates robot training and task orchestration—driving smarter, more efficient manufacturing workflows.

intel ai
Intel® AI Edge Applications

Key Intel-Enabled Features

- Heterogeneous Edge AI
- Physical AI
- Autonomous Robotics
- Deterministic Control

Accelerate Business Transformation with Optimized, Ready-to-Deploy, Intel-Powered AI Partner Solution

- Intel® Core™ Ultra processors balance CPU, GPU, and NPU for efficient multimodal AI tasks
- Intel® Arc™ GPUs and NPU enable fast real-time processing for robotics decisions
- The OpenVINO™ toolkit boosts model speed and ensures consistent AI inference
- Intel® CPUs provide predictable, deterministic control for mission-critical robots

Intel Products and Technologies

- Intel® Core™ Ultra Processors
- Intel® Arc™ Graphics
- OpenVINO™ toolkit
- Anomalib

Ordering Guidance:

- Contact Us

Country/Geo: Worldwide

Edge Verticals: Manufacturing; Robotics

Edge Use Cases: Quality Control; Anomaly Detection; Quality Inspection; Worker Safety; Vision Guided Robots; Autonomous Mobile Robots; Humanoid Robots; VLA Models

Learn more:

- Circulus Website
- Circulus ARCos