Real-Time Edge AI OS for Smart Autonomous Robotics

ARCos

circulus x ASUS x intel

By leveraging Intel® technologies, ARCos by Circulus helps manufacturers overcome the latency, security, and scalability challenges of cloud-dependent robotics, enabling real-time autonomous decision-making, resilient operations, and secure edge AI deployment.

ARCos, developed by Circulus, is an advanced, real-time edge AI operating system engineered for smart autonomous robotics. It delivers exceptional on-device autonomy and low-latency decision-making without relying on cloud connectivity, ensuring highly secure and resilient industrial workflows.

Deployed on the ASUS NUC 15 Pro+, ARCos leverages Intel® Core™ Ultra Series 3 processors and Intel® Arc™ graphics, strategically utilizing heterogeneous CPU, GPU, and NPU resources to efficiently run complex vision-language-action (VLA) models directly at the edge. The compact ASUS platform provides a scalable, high-performance foundation for edge AI deployment, enabling real-time robotic intelligence in space-constrained environments.

By integrating the OpenVINO™ toolkit and Anomalib, ARCos accelerates AI inference speeds and enables precise anomaly detection, quality inspection, and deterministic control for critical manufacturing tasks. From autonomous mobile robots to humanoid platforms, this Intel-powered partner solution provides a scalable, ready-to-deploy infrastructure that drives smarter automation, reduces system downtime, and accelerates robot training.

ARCos by Circulus delivers real-time, on-device autonomy for industrial robots, enabling secure, low-latency decision-making eliminating cloud dependency.

Intel Products & Technologies

Accelerating AI and analytics at the edge

Intel® Core™ Ultra Series 3 Processors

Intel® Arc™ Pro B-Series Graphics

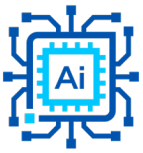
OpenVINO™ Toolkit

Key Intel-Enabled Features

Real-Time AI and analytics make it easy

Heterogeneous Edge AI

Physical AI Platform

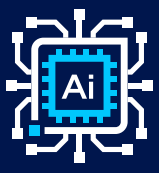


Autonomous Robotics

Real-Time Control

Powered by Intel® processors and optimized with OpenVINO™ toolkit, Circulus and ASUS deliver:

01



Balanced CPU, GPU, and NPU resources for efficient AI workloads

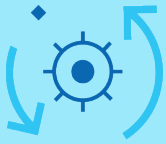
02

OpenVINO™-optimized inference for accelerated VLA model execution

03

Intel® Arc™ graphics for low-latency, real-time edge intelligence

04



Intel® Core™ provide reliable, deterministic control

That's the power of Intel Inside®.

Country/Geo:

US/Canada
Asia Pacific, Japan, Australia and New Zealand

Verticals:

Robotics

Use Cases:

Humanoid Robotics

About Circulus

Circulus develops ARCos, an advanced real-time edge AI operating system designed for smart autonomous robotics. Powered by Intel technology, ARCos enables on-device, low-latency multimodal AI—integrating vision, audio, and language. It delivers secure situational awareness, deterministic control, and adaptive decision-making for industrial and humanoid robots.

arcos.circul.us/

ARCos - Edge AI Partner Spotlight

intel ai
Intel® AI Edge Applications

About ASUS

ASUS is a global technology company driven by innovation and passionate about enhancing digital life. It designs and delivers a broad range of products and solutions that empower people and organizations, combining cutting-edge engineering, quality, and sustainability to create intuitive, reliable experiences for users worldwide.

www.asus.com

ASUS NUC 15 Pro+ - Edge AI Partner Spotlight

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Intel® AI Edge Systems

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