

● ALL-IN-ONE CAMERA · AI1

Visual intelligence, decoded at the edge.

AI1 turns every frame on your line into a structured business event, ready for your MES, your ERP, your BI stack, in the time it takes for the part to move down the conveyor. One camera. One device. The entire Roboflow stack, running on-sensor.

8 MP

4K SENSOR · 4MM LENS

1024 CUDA cores

NVIDIA JETSON ORIN NX

8 architectures

RF-DETR · YOLO · DINOv3
· SAM 3

50k+ models

ROBOFLOW UNIVERSE · DEPLOY
IN SECONDS

01 · EARLIER

Catch defects at the source.

Move inspection upstream. Stop defects at station 3 instead of pallet 47. Every minute of downtime prevented is margin recovered.

02 · FASTER

Sub-100ms edge decisions.

Every frame inferred on-device. No cloud round-trip. Pass/fail signals reach your PLC before the next part arrives. Every time. Every shift.

03 · SMARTER

Structured events, not pixels.

Every inspection lands in your MES, ERP, and BI as a queryable record. Receipts for every decision. Audit trails that close themselves.

AI1 · INDUSTRIAL VISION ENDPOINT



WORKFLOWS

Drag-and-drop production pipelines.

Chain models, logic, and integrations in a visual editor, then run the whole thing on-device. 150+ blocks · 36 architectures

DEPLOYMENT MANAGER

One pane of glass. Hundreds of sites.

Provision devices, push workflows, and monitor utilization across every plant. Every update is over-the-air. OTA · RTSP · ∞ sites

HMI

The dashboard on the factory floor.

AI1 hosts a network-deployed HMI. Operators can use any web browser via thin client on the OT network. Live streams, match rates, and defect counts. Nothing plugged into the device, and no cloud round trip. <100ms · PASS/FAIL

VISION EVENTS

Every frame, a queryable record.

Predictions, metadata, and operator feedback land as structured events. Local first, synced to the cloud, exported to any BI. MES · ERP · BI · Slack

GET EARLY ACCESS →



GE VERNOVA



Technical specifications & integrations.

DATA SHEET

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SUPPORTED MODEL ARCHITECTURES • ON-DEVICE INFERENCE		8 ARCHITECTURES • 50,000+ PRETRAINED UNIVERSE MODELS	
RF-DETR ROBOFLOW SOTA object detection. Top accuracy, real-time latency.	RF-DETR NAS ROBOFLOW Neural Architecture Search finds the optimal RF-DETR for your data and hardware.	RF-DETR Segmentation ROBOFLOW Instance segmentation on the RF-DETR backbone. SOTA accuracy at the edge.	YOLO 11 / 12 / 26 ULTRALYTICS Real-time detection. Supported for compatibility. RF-DETR recommended for new projects.
YOLO-World TENCENT Open-vocabulary detection. Prompt with text, detect anything.	SAM 3 META Open-vocabulary segmentation. Experimental on 8 GB VRAM.	DINOv3 META Self-supervised features. Classification, retrieval, zero-shot.	Perception Encoder META General-purpose visual encoder for downstream tasks.
50,000+ Universe models ROBOFLOW UNIVERSE Deploy any pretrained model from RoboFlow Universe to AI1 in seconds. Community-shared models for thousands of common detection, classification, and segmentation tasks.			
TASK BLOCKS: Object Detection • Segmentation • Keypoint • Classification • Depth • OCR • QR • Tracking • Counting • Filtering • Auto-labeling • Custom Python 150+ workflow blocks			

ENTERPRISE INTEGRATIONS & COMPLIANCE		SPEAKS YOUR FLOOR'S PROTOCOL, ON DAY ONE	
PLC & MACHINE CONTROL OPC-UA MQTT Modbus TCP EtherNet/IP Profinet Rockwell Siemens		ADDITIONALLY SUPPORTED CAMERAS RTSP GigE Vision Basler FLIR Lucid Luxonis Reolink Unifi	
		SECURITY & COMPLIANCE SOC 2 Type II HIPAA + BAA SS0 / SAML RBAC Audit log SSL A+	

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