EUREKA ROBOTICS

EUREKA CONTROLLER

One-stop Solution for Robotics & AI Vision Applications

Eureka Controller connects with robot arms, cameras, sensors, PLCs, and other industrial devices, and orchestrates them to create powerful Robotics & AI applications. **Eureka Controller** enables any engineer – not just robotics experts – to develop, deploy, and maintain High Accuracy - High Agility (HA-HA) applications, quickly and easily.

HELPING ENGINEERS DEVELOP ROBOTICS & AI APPLICATIONS FASTER, SMARTER, & CHEAPER

Faster: Cut down development time of Robotics & AI applications by 10x.

Smarter: Build more powerful applications by leveraging Eureka's technologies derived from years of top-level research.

Cheaper: Reduce development cost by up to 5x.

EASE OF USE

Develop complex Robotics and AI Vision workflows in minutes with Eureka Controller's intuitive block-based GUI. Manage, simulate, deploy devices and applications in a single environment. Annotate, train, deploy, and scale AI models with the integrated ML Studio.

POWERFUL CAPABILITIES

Combine your domain expertise with Eureka Controller's capabilities -- High-Accuracy Calibration, AI-based 2D/3D Computer Vision, Motion Planning, and Force Control -- to build best-in-class products in your industry vertical.

COMPREHENSIVE SUPPORT

Get direct support from our dedicated and experienced team. We have helped deploy robots that powered >15M million operations in factories across Japan, China, and Singapore.

SINGAPORE (HQ) | FRANCE | VIETNAM | JAPAN | USA | CHINA

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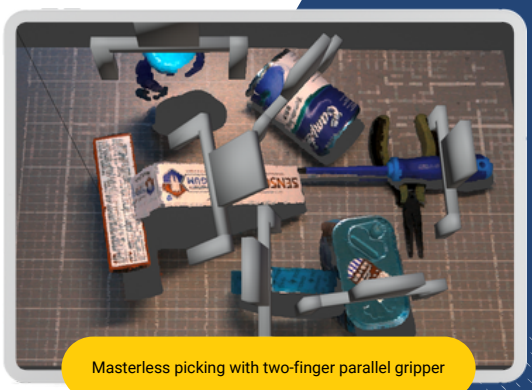
POWERFUL CAPABILITIES

Eureka Grasp for Masterless Picking

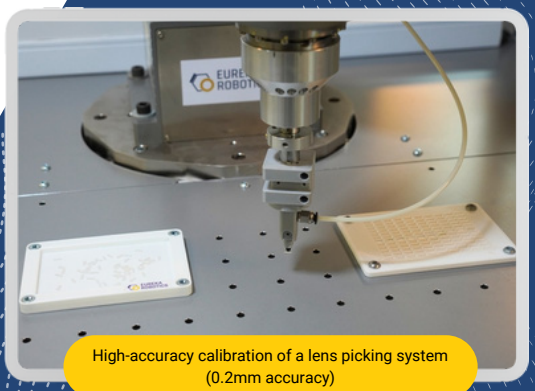
- Eureka Grasp excels at handling new or randomly placed objects without prior knowledge of the objects' models, using a suction cup or other types of gripper.
- Adjusts to new situations and objects, ensuring reliable performance in unpredictable environments.
- Employs innovative techniques to achieve secure and stable grasps on diverse objects.



Masterless picking with two-finger parallel gripper

High-Accuracy Calibration

- Calibration of kinematics and reference frames of cameras, robots, and end-effectors with high accuracy, enabling sub-millimeter (<0.2mm) end-to-end accuracy on vision-guided tasks
- Use of standard 2D/3D cameras, no other specialized equipment required
- More than 15 million High Accuracy - High Agility (HA-HA) operations powered in production



High-accuracy calibration of a lens picking system (0.2mm accuracy)

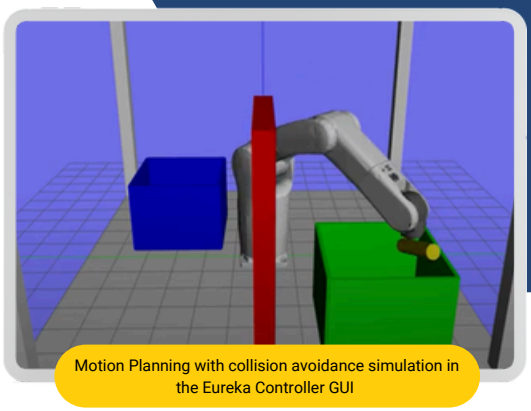
Deep-Learning Computer Vision

- Easy-to-use tools for data annotation, model selection and tuning, ML training and inference, enabling close to 100% success rate
- Cloud training infrastructure for speed and scalability
- Defect and anomaly detection with out-of-box, powerful, pre-trained models
- Optical Character Recognition (OCR) and barcode reading with standard 2D cameras

Fast-speed & accurate model testing in an Anomaly detection case, using Deep-Learning Computer Vision

Real-time Motion Planning

- Automatic generation of optimal robot trajectories without manual teaching
- Collision avoidance considering the entire environment
- Fast computation (<1s per trajectory) enabling real-time operation (e.g. random bin picking)
- Motion retargetting to adapt to changes in environment or workpieces



Motion Planning with collision avoidance simulation in the Eureka Controller GUI

Typical Applications |

OPTICS
Handling for coating, cleaning, polishing

LOGISTICS
Random 3D bin picking, palletizing, depalletizing

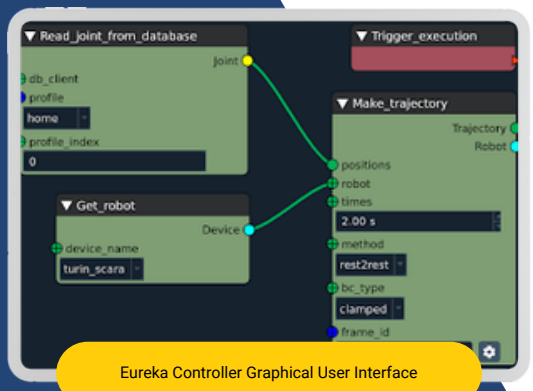
EUREKA ROBOTICS

EASY-TO-USE SOFTWARE

Eureka Controller GUI

Graphical User Interface (GUI) that enables any engineer, not just robotics experts, to easily develop complex Robotics and AI Vision workflows.

- Block-based programming of workflows (similar to Simulink)
- Comprehensive library of built-in functions to kickstart simple to complex applications
- Out-of-box support for major-brand robots (Denso, Mitsubishi, ABB, Kuka, Universal), cameras (Basler, HIKRobots, Omron), and other industrial devices

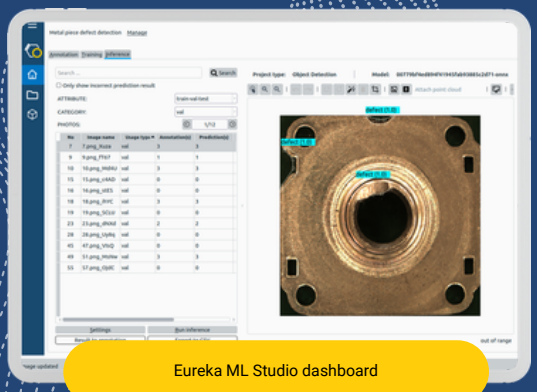


Eureka Controller Graphical User Interface

Eureka ML Studio

Eureka ML (Machine Learning) Studio enables you to create your own Deep-Learning models, from data collection to annotation, training, testing, and deployment.

- Smart annotation: annotate complex objects in one click, with smart segmentation
- Powerful pre-trained AI models for defect detection or object localization
- Flexible custom training models: train your own models on your dataset
- Cloud infrastructure to accelerate training speed and simplify scaling and maintenance

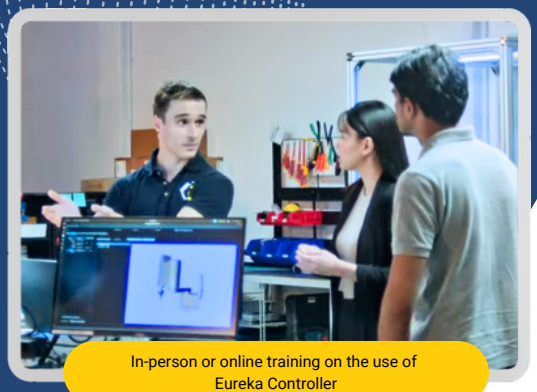


Eureka ML Studio dashboard

COMPREHENSIVE SUPPORT

Training & Support

- In-person or online on-boarding by dedicated Eureka engineers and experts
- Comprehensive documentation and tutorials for reference and self-directed learning
- On-demand technical support over the product lifetime

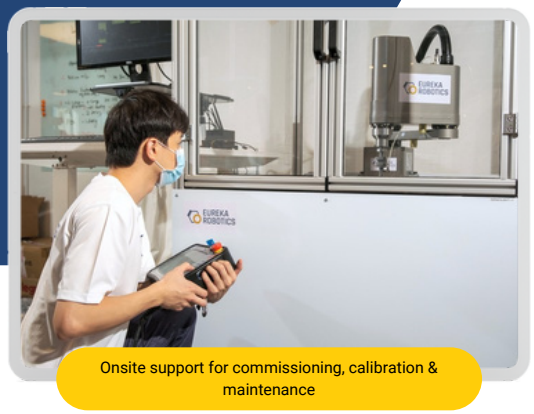


In-person or online training on the use of Eureka Controller

Product co-development

Are you planning to integrate Robotics or AI into your product line-up? We'll be happy to partner with you in your product development journey!

- Free consulting to evaluate the strengths and gaps in your Robotics and AI roadmap
- Deep partnership to co-develop industry-leading products, leveraging your domain expertise and Eureka's Robotics and AI strengths



Onsite support for commissioning, calibration & maintenance

ELECTRONICS
Precision handling
Quality inspection

AEROSPACE MRO
Braze dispensing
Weigh & lay

AUTOMOTIVE
Precision handling, assembly

EUREKA CONTROLLER PACKAGES

EUREKA ROBOTICS

	VISION	VISION + ROBOTICS
Applications	Inspection, 2D/3D Object Localization	Precision Handling, 3D Bin Picking, Assembly, Dispensing
Eureka Controller Box	✓	✓
Pre-trained AI Models	✓	✓
Custom AI Models	✓	✓
Out-of-Box Device Support	Cameras, IO Controls	Robots, Cameras, IO Controls, PLCs, and Others
Advanced Features	✗	High Accuracy Calibration, Motion Planning, Force Control

STANDARD INCLUSION

- 12-month Warranty
- Post Warranty Maintenance Contracts
- Onboarding Training & Support
- Incident Management

ADD-ONS

- Eureka 3D Camera
- High Performance SLA support
- Professional Services
- Custom Analytics & Reporting

WHAT OUR CUSTOMERS SAY

"Eureka Robotics' AI technology for finding scratches and digs has helped us achieve nearly 100% detection success rate in our lens quality inspection."

– T. K., General Manager, SigmaKoki Co., Ltd., Japan –

"Joint development between Denso Wave and Eureka Robotics began naturally, we were able to launch the product smoothly. Thanks to the development capabilities of Eureka Robotics, the product is advanced, yet easy to use."

– H. B., General Manager, Denso Wave Incorporated, Japan –

ABOUT EUREKA ROBOTICS

Empowered by Robotics and AI research from NTU Singapore, MIT, and the University of Tokyo, Eureka Robotics delivers robotic software and systems to automate tasks that require High Accuracy and High Agility (HA-HA).

With offices in Singapore, France, Vietnam, Japan, and distribution partners in China and the USA, Eureka Robotics prides itself on helping clients, globally, achieve vastly improved productivity, lower costs, better safety. Common uses include Inspection, Precision Handling, 3D Picking, Assembly, or Dispensing.

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