

REVOLUTIONIZE YOUR LOGISTICS OPERATIONS WITH EUREKA ROBOTICS



Are you facing these challenges in your operations?

- Products vary in size, shape, type, and weight
- Too many SKUs to register images/data in advance
- Challenging items, like transparent, glossy, or thin products
- Irregular shapes (e.g., polybags) are difficult to handle
- Barcode locations vary across products

Eureka Robotics can solve those issues!



- **Masterless picking:** Eureka's 3D processing pipeline allows picking of objects without needing prior training.



- **Recognition of difficult items:** The AI-based-stereo 3D camera, does not necessitate pattern projection. It can recognize glossy, semi-transparent, and thin products, with minimal impact from reflections or lighting.



- **High-precision calibration:** Integrated 3D camera and robot control simplify high precision calibration and easy robot/end-effector selection.



- **Optimal robot paths:** AI-generated grasping pose and best in class motion planning with collision avoidance, enable robust, reliable and fast picking.





MASTERLESS PICKING

The AI-powered Eureka 3D Camera and Controller provide an out-of-the-box solution for Autonomous Piece Picking, compatible with any standard robotic arm.

No prior item registration is required as AI models automatically find the best grasping position and picking strategy. It works with a variety of grippers including suction, 2 and 4-finger grippers for successful picking.

Applications:

Piece picking in warehouses/distribution centers

Key Parameters:

- Picks an unlimited number of items without prior learning or registration
- Handles difficult items (small, complex shapes, glossy, semi-transparent, etc.)



Scan for video

DEPALLETIZING/PALLETIZING IRREGULAR ITEMS

The Eureka Controller and Eureka 3D Camera provide a robust solution for the depalletizing and palletizing of challenging items, which vary/change in shapes, sizes and position.

The system detects the various items and computes the optimal grasping pose, along with the palletizing/depalletizing strategy, to ensure balanced stacking/unstacking of the pallet.

Applications:

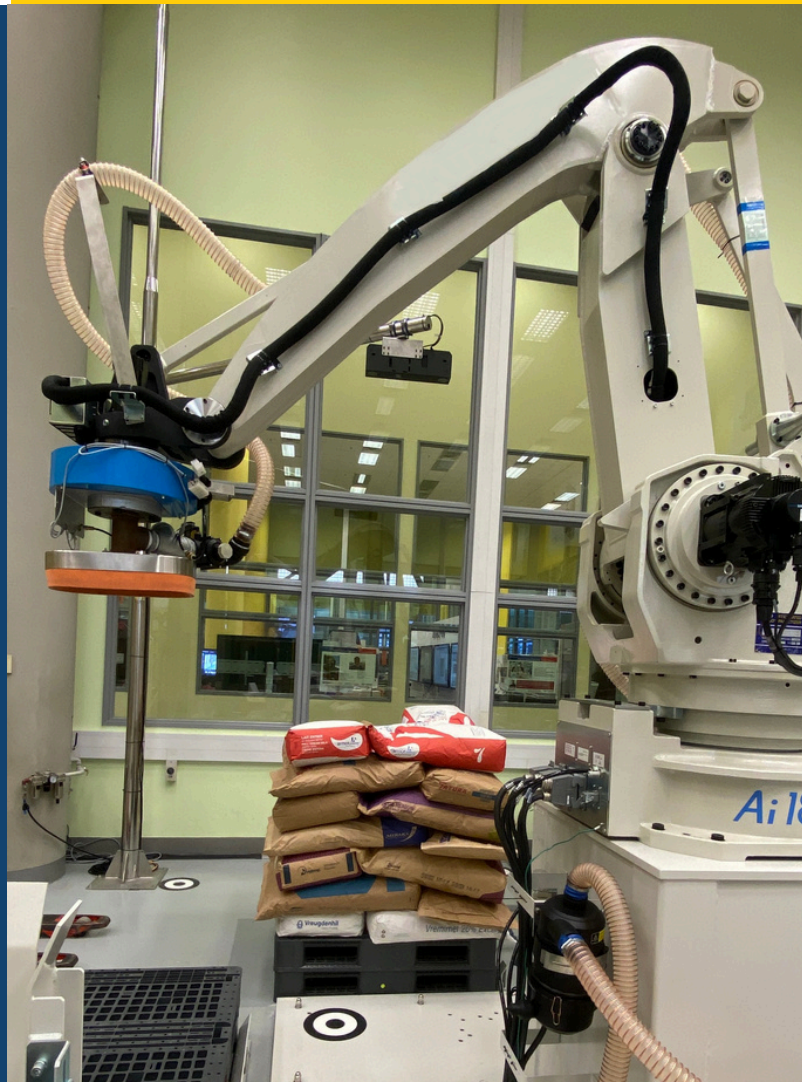
Depalletizing and Palletizing

Key Parameters:

- Handles workpieces of various shapes and sizes, including flexible bags
- Handles workpieces in the order of easiest to pick, while considering stackability of the item



Scan for video



PACKAGE INSPECTION AND DATE / DATA READING

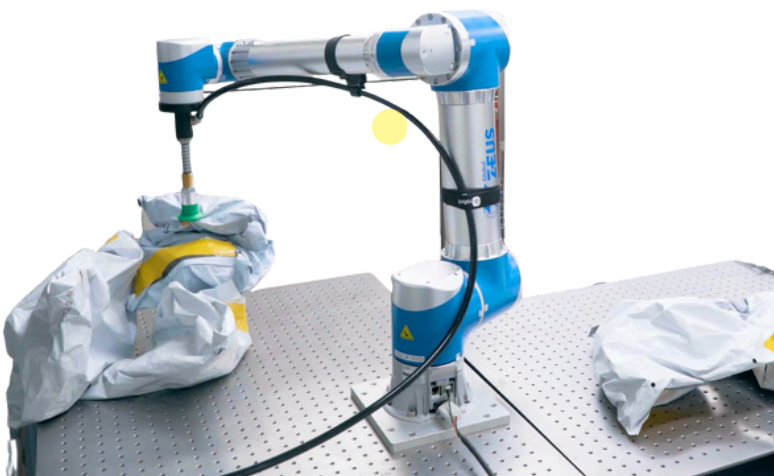
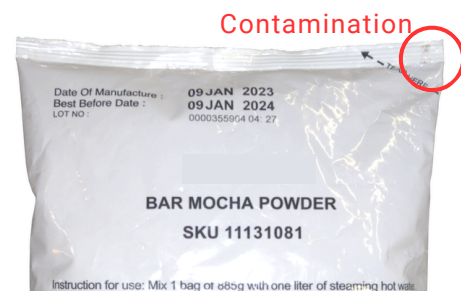
The Eureka Controller augments quality inspection and traceability, with AI-based defect detection and reading of key information using AI-based OCR. Before shipping, bags and boxes are checked for defects like stains, tears, and holes. OCR reliably captures manufacturing/expiry dates, country of origin, in various fonts, colors and locations.

Applications:

- Detecting defects like holes, tears, dirt, etc.
- Identifying improper sealing of packages
- Reading and registering dates and other data on labels and cartons

Key Parameters:

- Image capture to defect judgment: <1 sec/item
- Data detection and reading: <1 sec/item



INDUCTION AND SORTING

During parcel induction/sorting, irregularly shaped and non-conveyable items (e.g. rolls, unstable shapes) are challenging to handle and necessitate manual handling.

The Eureka 3D Camera identifies these items and computes on the fly how to autonomously pick them with a robotic arm, without needing any prior-registration.

This enables a system for sorting of these items as well as a single system to automatically induct all item types to high speed sorters.

Applications:

- Autonomous bin picking of mixed polybags
- Induction of parcels and polybags to sortation systems
- Sorting unstable or un-conveyable packets

Key Parameters:

- Cycle time: <4 sec



Scan for video





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).

Eureka's strengths lie in its proprietary technologies (High-Accuracy Calibration, Computer Vision, Motion Planning, Force Control) and extensive industrial deployment experience, with more than 25 million HA-HA operations to date in factories worldwide.

SELECTED CUSTOMERS & PARTNERS



EUREKA ROBOTICS

www.eurekarobotics.com
contact@eurekarobotics.com

SINGAPORE (HQ) | VIETNAM | JAPAN