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MI.RA/ ONE PICKER

Any Picker
ONE Flexible Solution

‹mi_ra›

A customized solution starts with a watchful eye

Discover MI.RA, Machine Inspection and Recognition Archetypes: Comau's flexible vision systems portfolio empowered by a State-of-the-Art Computer Vision Algorithm.

Reconfigurable performance to face the future

Delivering the flexibility and innovation to meet the demands of the most challenging production scenarios, Comau's MI.RA portfolio guarantees modular, scalable, stable and customizable solutions that reduce operating expenses while increasing throughput and performance.

Thanks to decades of experience in systems integration, Comau's advanced MI.RA archetypes also ensure a seamless interface with the best hardware available on the market.

‹mi_ra/OnePicker›

MI.RA/OnePicker is our standard AI-based solution to pick generic objects. Designed to automate the task of emptying bins full of heterogenous objects, it reduces the need for manual and repetitive operations while increasing productivity and cost efficiency.

The powerful State-of-the-Art vision system detects and localizes random displaced objects inside the bin and chooses the best way to empty the bin. In addition, integrated collision-avoidance and safety routines are put in place to avoid dangerous situation and errors in the production process.

MI.RA/OnePicker supports dual sensor mounting:

- **Stationary**: for single bin applications; recommended for use with fixed picking areas.
- **On-Robot**: ideal for multiple bin applications with collaborative robots.

Vision System for 3D Robot Guidance

- **Advanced path planning**
- **User-friendly interface**
- **Multiple cameras support**
- **Scalable**
- **TCP/IP Communications**
- **No CAD needed**
- **Manage multiple objects inside the same bin**
- **Works with vacuum-based grippers**

APPLICATIONS

- Kitting
- Sorting
- E-commerce

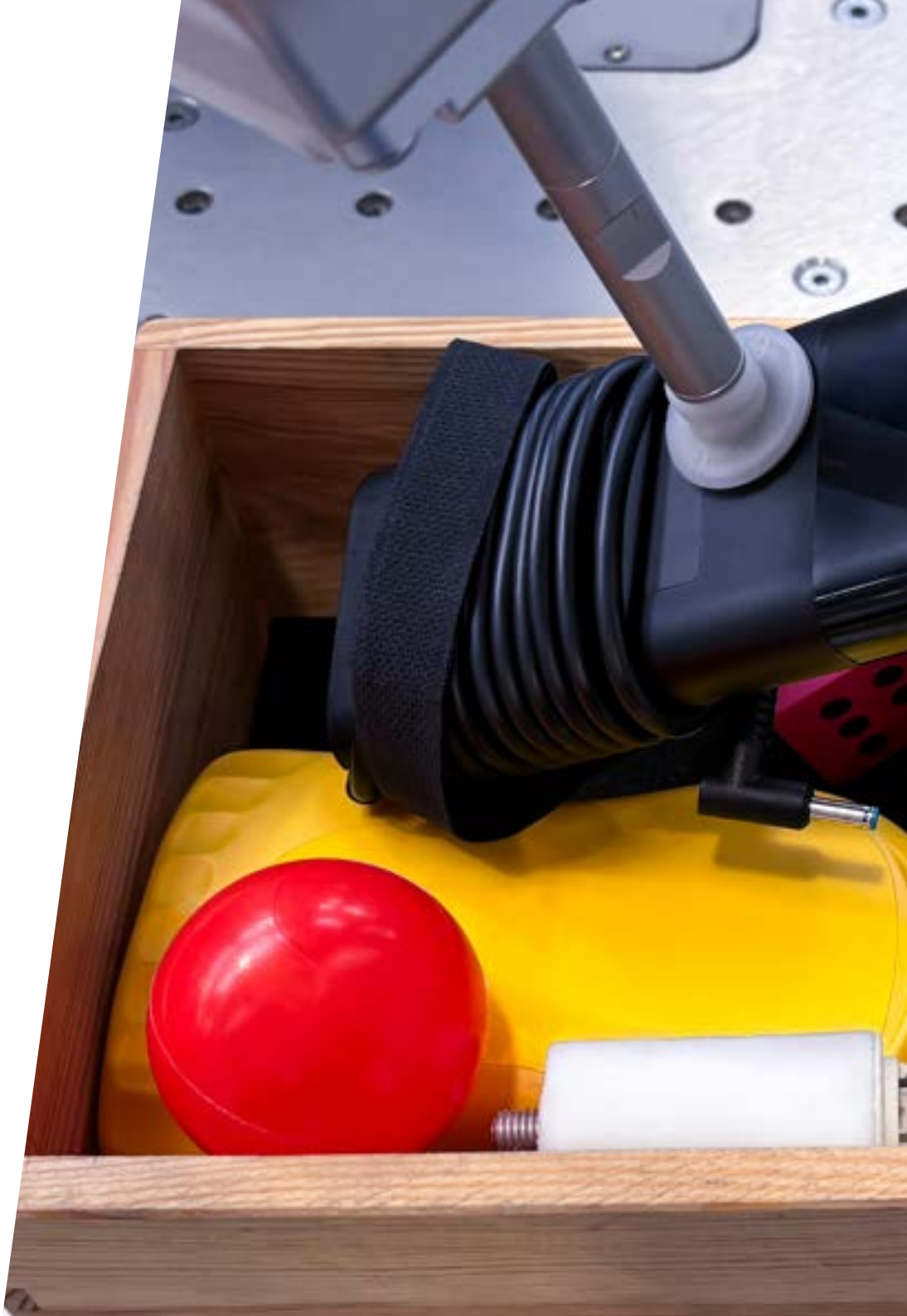
Collision Avoidance

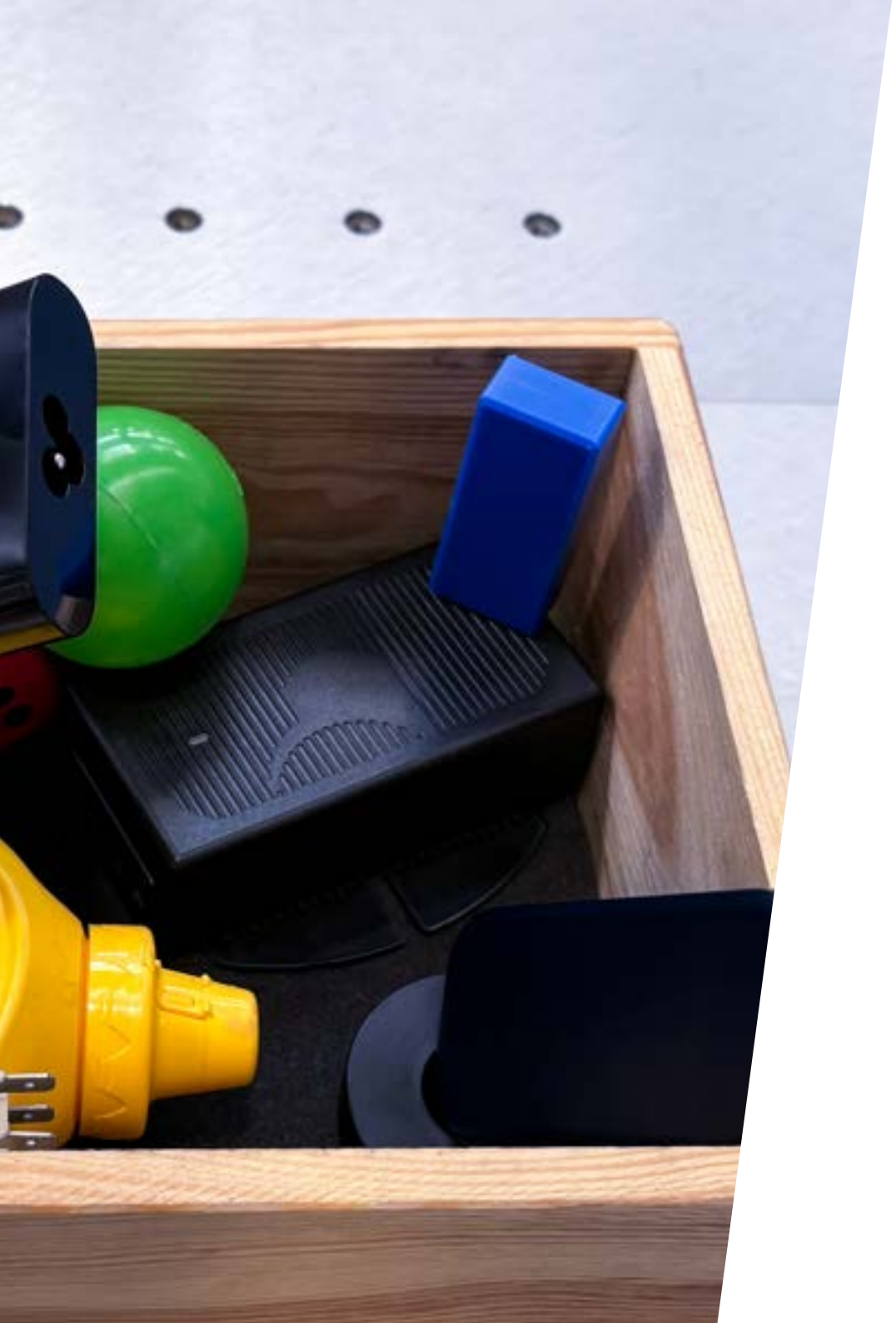
Users have the ability to define 3D models for both the bin and the robot. Using the defined setup and the estimated grasping points, MI.RA/OnePicker can simulate the final configuration of the scene to avoid any potential collisions with both the robot itself or the bin. This sophisticated process guarantees not only complete safety but also the optimal robot performance during picking operations.

- **Imported Robot model**
- **Different bin types**
- **Customized gripper**

Grasp Generation

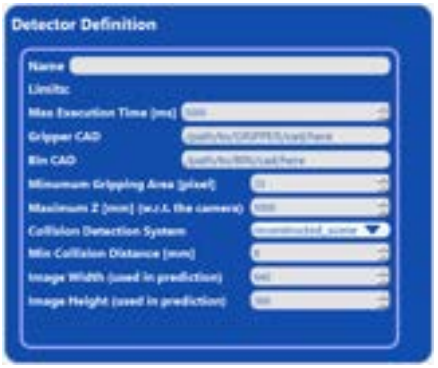
MI.RA/OnePicker uses advanced computer vision to find graspable surfaces for its vacuum gripper. By analyzing depth and RGB data, it accurately determines the best picking poses for various objects without requiring extra information.

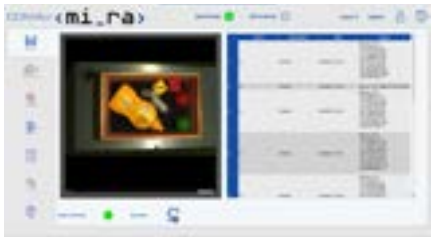




Easy Setup

Users can effortlessly define all the essential parameters required for the successful utilization of the product. With the highly intuitive configuration page, users can seamlessly set up their environment and specify the parameters which will be used by the integrated artificial intelligence algorithms to achieve the optimal balance between computational speed and accuracy.

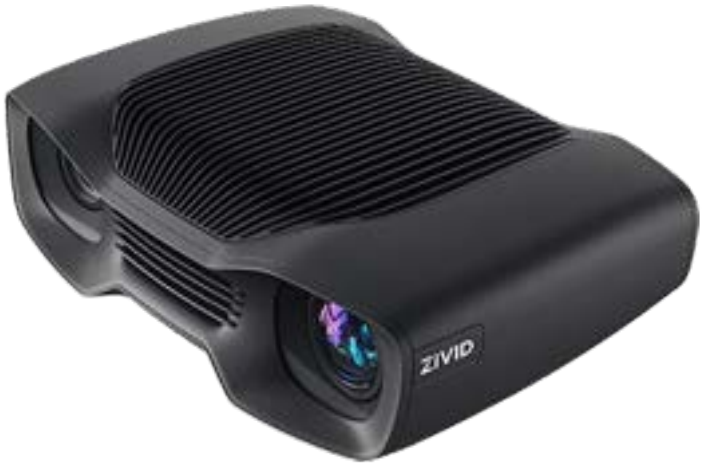




- **Standard robotic libraries**
- **Reduced commissioning time**

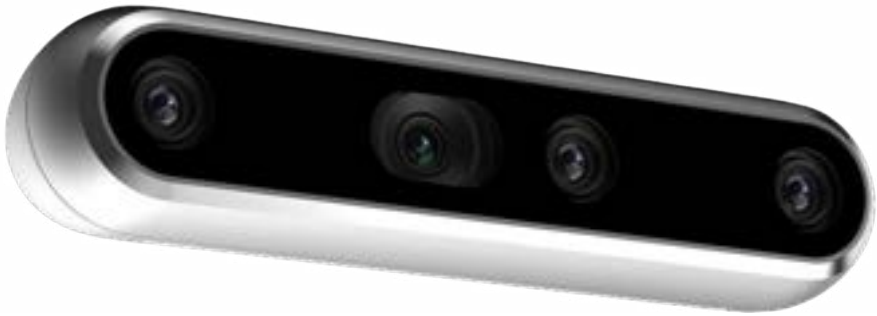
Deployment

Easily merge with existing robot programs and automate tasks effortlessly with a set of ready-made routines for managing cycles and handling errors. This smooth integration makes the automation process a breeze, keeping everything running efficiently.



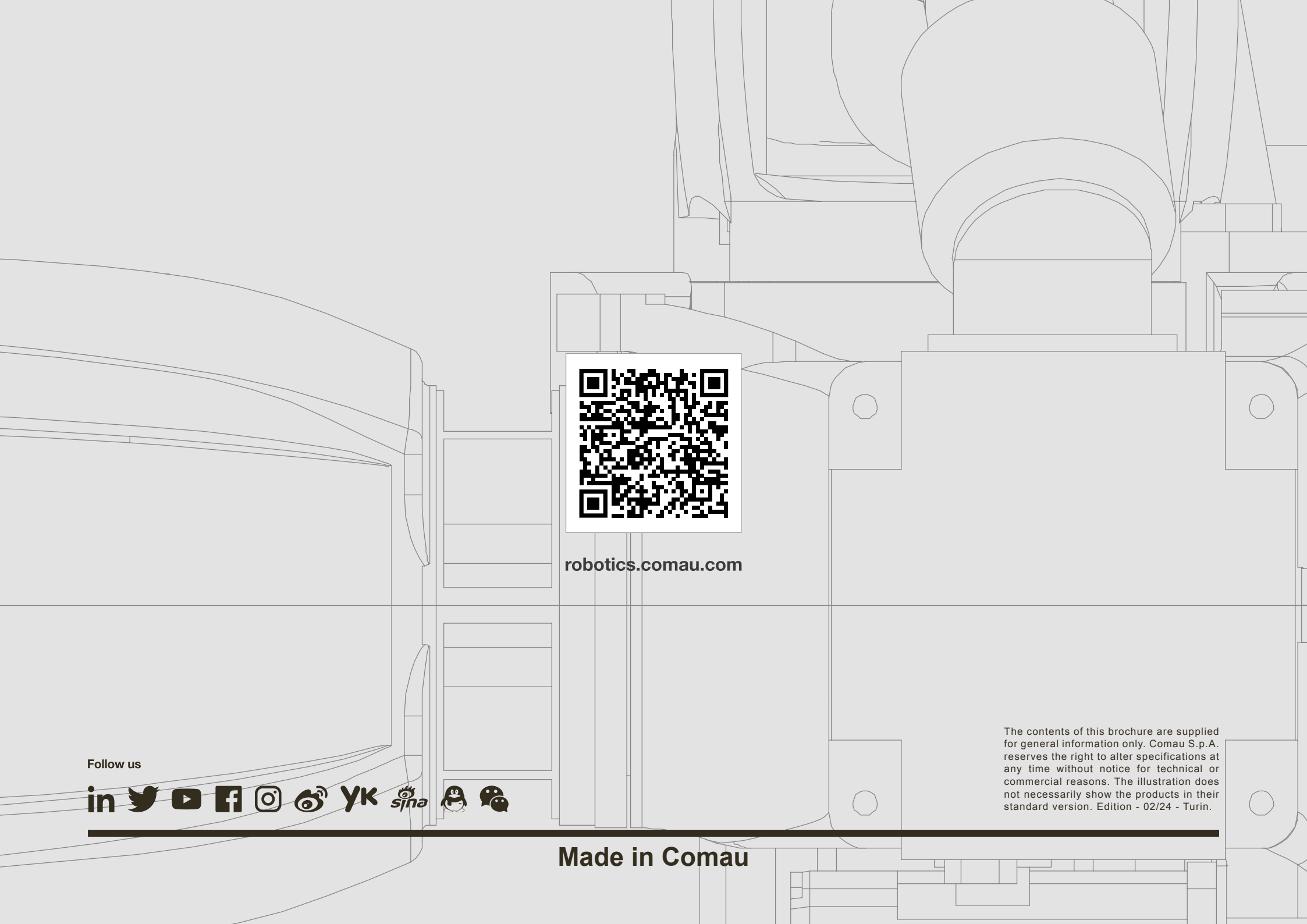
Zivid

- Temporal structured light technology
- Groundbreaking 3D+2D cameras for the highest-performing robotic applications
- Three camera models with a versatile field-of-view
- Works with transparent plastic, highly polished cylinders and dark reflective parts



Intel RealSense

- Over ten years of stereo camera development
- Up to 1280 × 800 as RGB frame resolution
- From 0.6 to 6 meter of operative range
- RGB sensor designed to improve the correlation between the color and depth information



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