



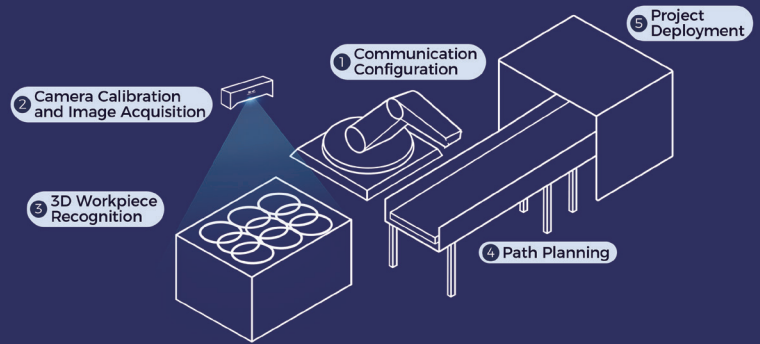
Mech-Vision Machine Vision Software

Intuitive vision software for complex vision applications

- Intuitive solution-oriented GUI
- Built-in industry-leading algorithms
- Various vision tools integrated
- Extensive solution library
- Easy setup & fast deployment

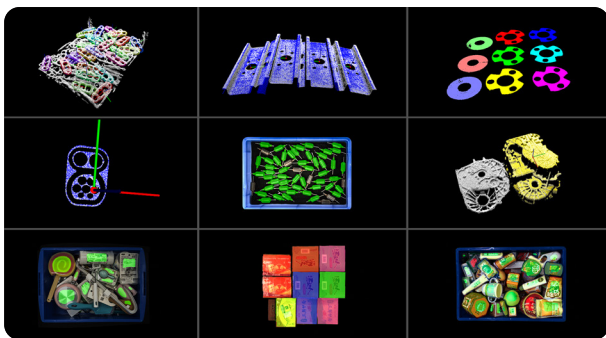
All-in-One Platform Software

The extensive Mech-Vision software manages all project steps, from configuration to deployment, in one system.



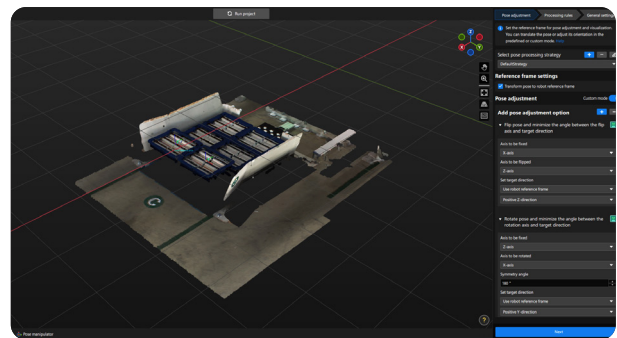
Discover the Benefits of Mech-Vision

Mech-Vision is a cutting-edge machine vision software designed to tackle the toughest vision challenges. With a solution-oriented user interface and many functional tools integrated, users and system integrators can realize easy setup and fast deployment. Driven by robust algorithms, Mech-Vision helps users solve simple and complex vision tasks, from identification and localization to inspection and measurement.



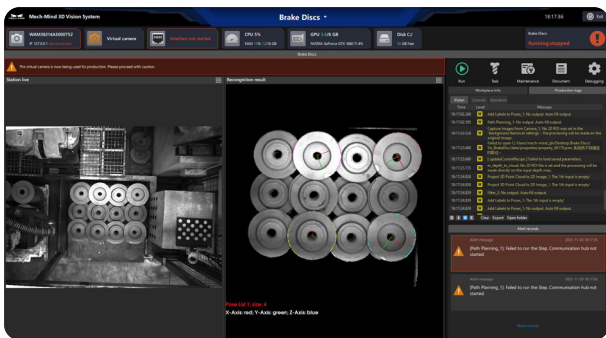
Advanced algorithms

Mech-Vision has an array of robust algorithms built in. Our 3D matching algorithms provide fast recognition results in less than 1 second, boasting a 99.8% accuracy rate.



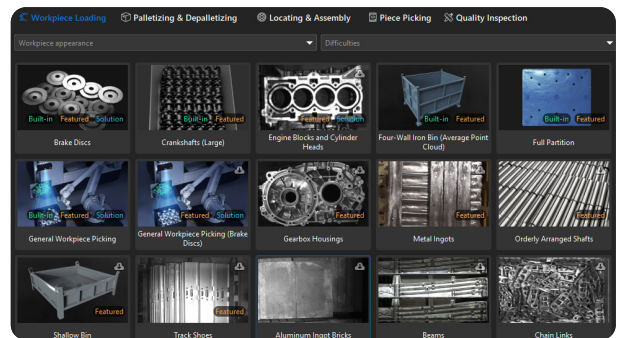
Innovative tools and templates

Many tools make your setup and deployment more accurate and efficient, such as the General Workpiece Picking Template, Pose Adjustment Tool, and Error Analysis Tool.



Easy-to-use production interface

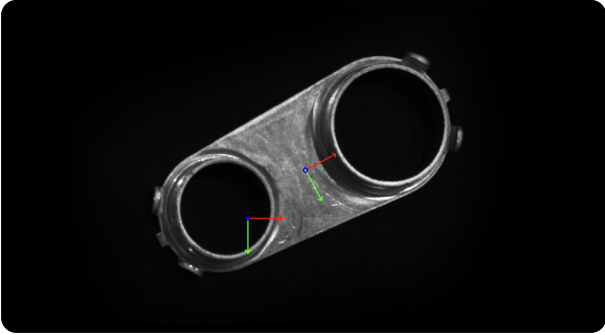
Users can set up a production interface in just two steps. The graphical production interface allows users to monitor each stage of production and check the results in real time.



Rich solution library

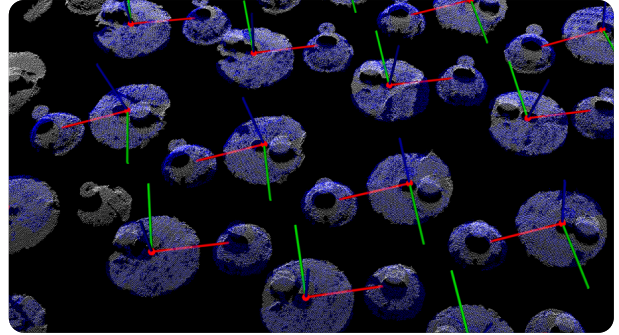
Our solution library offers an array of proven real-world cases across various industries, providing ready-to-use resources for understanding, deploying, modifying, and maintaining applications with ease.

Robust Vision Algorithms Speed Up Workpiece Recognition



2D matching

Achieve accurate sub-pixel matching of objects, even in challenging conditions with low contrast and high noise levels.



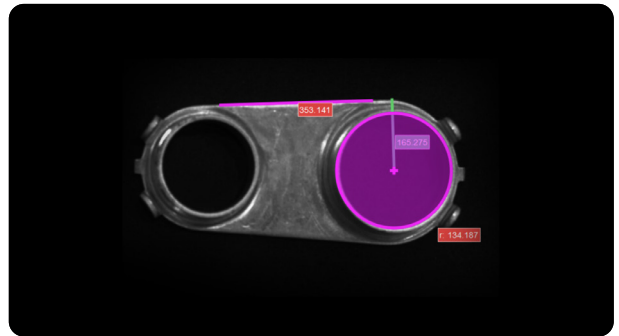
3D matching

Easily identify objects, even those with subtle features, whether they are tightly or randomly stacked, or located in hard-to-reach areas.



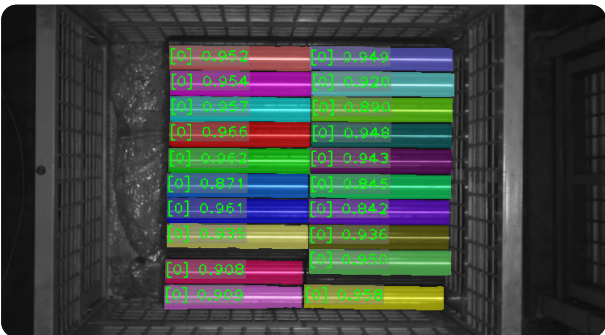
Novel objects picking

Predict the pick points of any object without data collection and training.



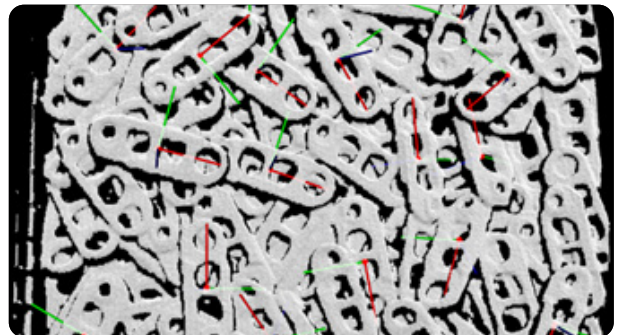
Inspection & measurement

Meet a variety of inspection and measurement needs with built-in feature extraction tools and self-developed caliper tools.



2D deep learning

Robustly and accurately identify overlapping or complex objects, even those with difficult-to-detect features and intricate textures.



3D deep learning (Mech-DLK Sim2Pick)

Streamline bin picking with a cutting-edge, labeling-free deep learning technology. Accurately train models, effortlessly handle challenging objects, and efficiently clear the bin.

Production Interface ^{new}

Optimizes Your Production

Monitor

The production status is displayed on the interface for you to accurately locate the fault. It also displays recognition results, deep learning results, and picking results for your fast check.

Camera connection

- Camera serial number
- Number of cameras
- Camera IP address
- Connection status of the real camera
- Virtual camera

Communication service status

- Communication service activation status
- Communication protocol
- Number of connected devices
- Device IP address
- Device connection status

Project running status

- Project list
- Project running status
- Cycle time of the project
- Latest modified time of the project

System performance status

- Free space of the system disk
- Free space of other disk
- Memory usage
- CPU usage
- GPU model and usage

Control

Users can customize the model for workpieces of various specs and shapes, allowing for flexible adaptation to various production lines.

Incoming materials

Station live

No workobjects

Recognition results

Reasonable 3D matching result

Unreasonable 3D matching result

Deep learning results

Deep learning result

No deep learning result

Picking results

Picking result

No picking result

Maintenance

Production logs, alert records, and abnormal data packets are available for quick troubleshooting, improving production stability and reducing maintenance costs.

User access

Solution backup

Operation logs

Abnormal data package

Custom alert

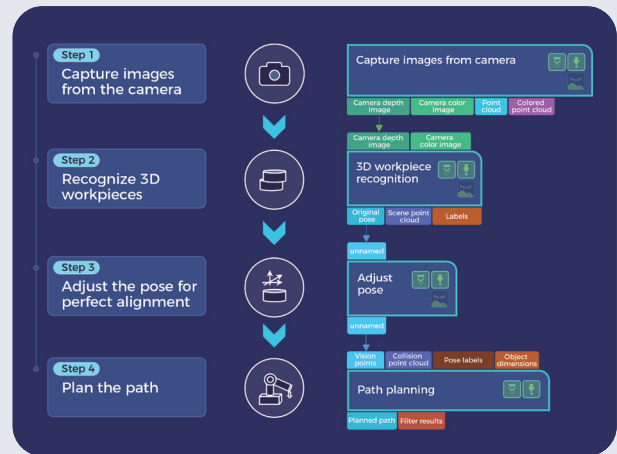
Operation manual

Troubleshooting

Maintenance

Quickly Build Your Projects with General Workpiece Picking Template

Set up your machine tending project in under 10 minutes with a simple four-step process.



Extensive Solution Library for Faster and Easier Deployment

The new Solution Library makes it easy to browse **real-world projects and cases**. With its intuitive graphical interface and pre-installed project templates, you can effortlessly choose and optimize existing applications that best fit your needs, enabling quick and flexible deployment of your new project.

Selecting by workpiece shape

- Workpiece appearance
- Wheel, plate, flat cylinder
 - Column, stick, pole
 - Shaft
 - Cuboid
 - Small piece
 - Special shape

Selecting by project characteristics

- Difficulties
- Defective point cloud
 - Mixed object specifications
 - Severe overlap
 - Background distraction/noise
 - Special recognition requirements

The Solution Library interface displays various project templates categorized by Workpiece appearance and Difficulties. The 'Brake Discs' template is highlighted, showing a detailed description: 'Brake discs, orderly arranged, with front and back faces alternately facing up. Multiple layers. Roughly processed metal. Slightly reflective surface. Use 3D edge matching to accurately locate the brake discs, distinguish the front and back faces, and output classification labels. For more details and instructions, please see the User Manual.'

Solution card tab

Built-in

The project template will be installed to the local directory from the software installation package.

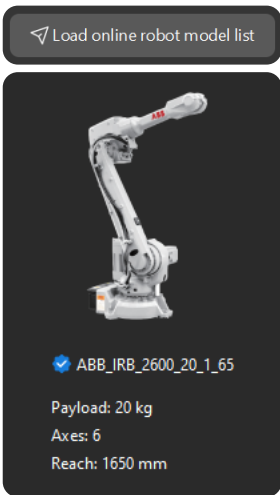
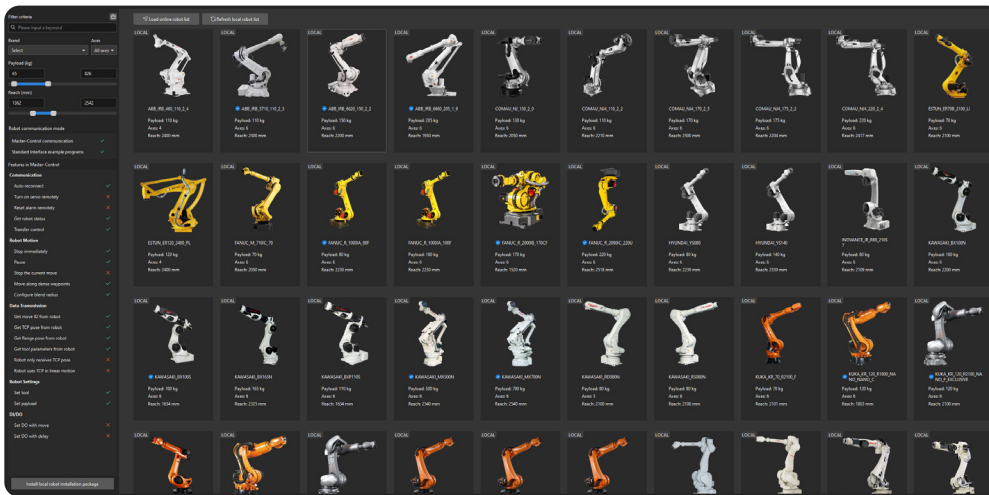
Solution

Access a versatile collection of ready-to-deploy projects or case scenarios designed to suit a range of needs.

Featured

The project template has undergone extensive on-site testing and is highly versatile.

Easy Robot Communication Empowers Your Project



1,000+ robot models

Browse the world's largest robot model library and effortlessly optimize your robot's path.

1-2 days

Communication integration can be completed in as little as 1 day.

Easy integration

Manage communication integration – easily and without technical support.

3D VISION & AI FOR ROBOTS AND MORE



Learning guidance to deploy your vision application **STEP BY STEP**, please visit

Online community: community.mech-mind.cn
 Download center: docs.mech-mind.net

Get the most from Mech-Mind's 3D vision - get in touch with us!

Website: www.mech-mind.com
 E-mail: info@mech-mind.net