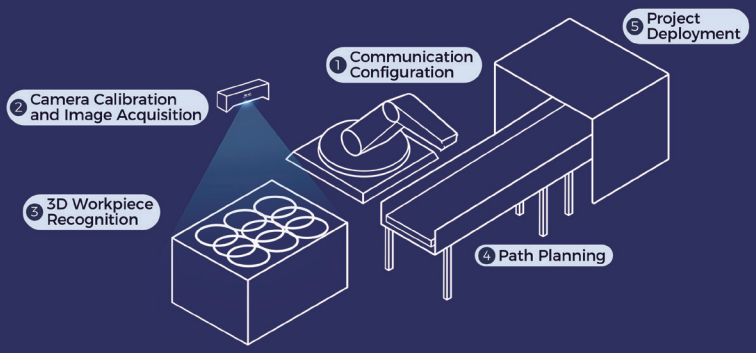
Mech-Vision
Machine Vision Software

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

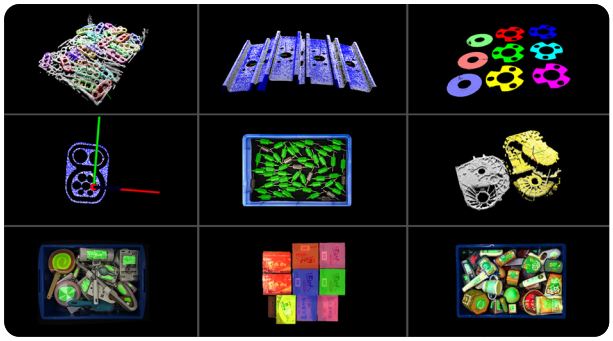
All-in-One Platform Software

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



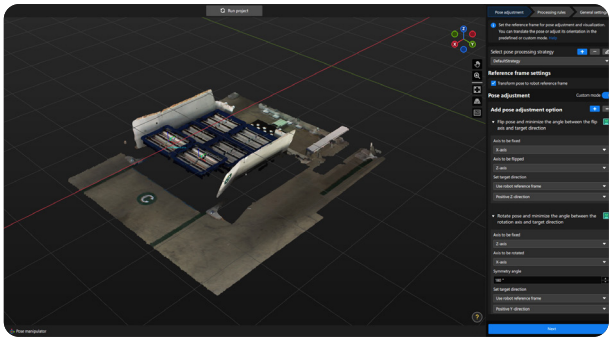
Discover the Benefits of Mech-Vision

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.



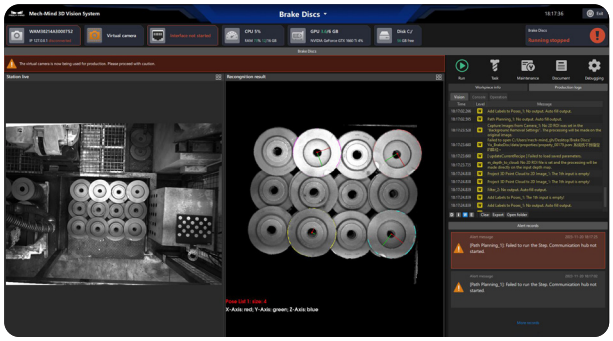
Advanced algorithms

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.



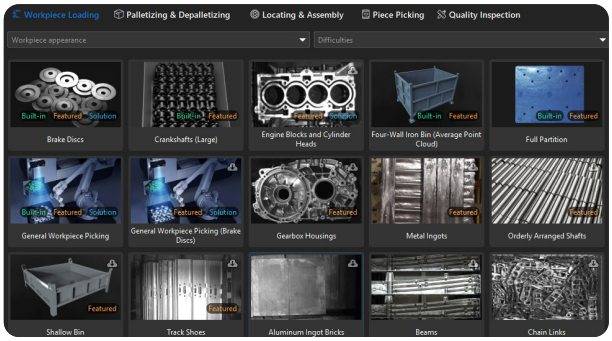
Innovative tools and templates

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

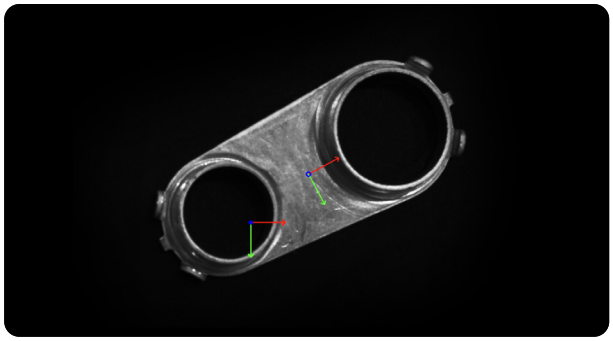
Users can set up a production interface in just two steps. The graphical production interface allows users to monitor each stage of production and check the results in real time.



Rich solution library

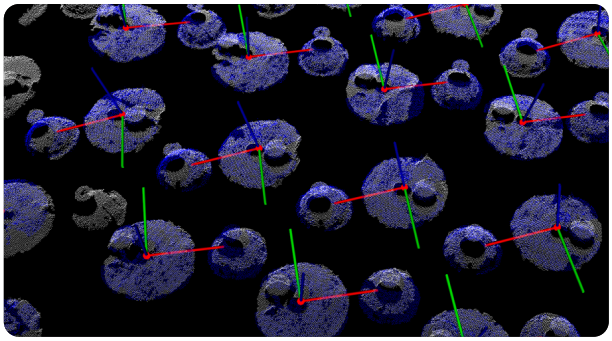
Our solution library offers an array of proven real-world cases across various industries, providing ready-to-use resources for understanding, deploying, modifying, and maintaining applications with ease.

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.

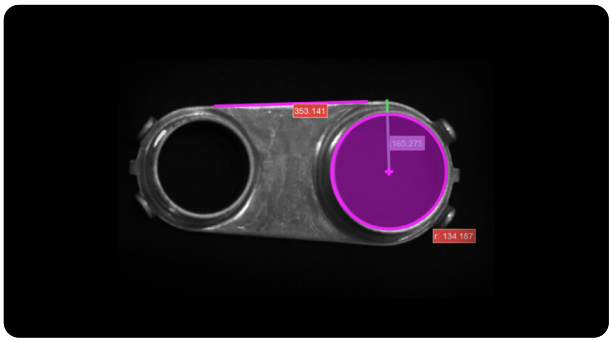


3D matching

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

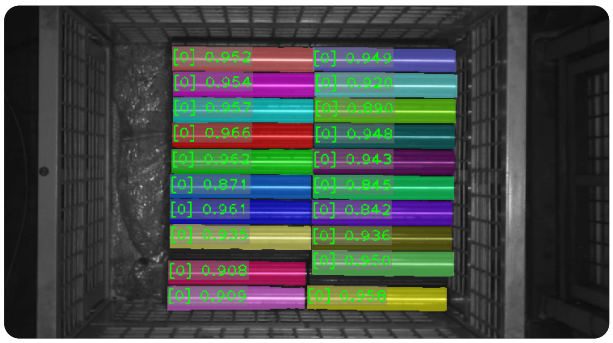
Novel objects picking

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



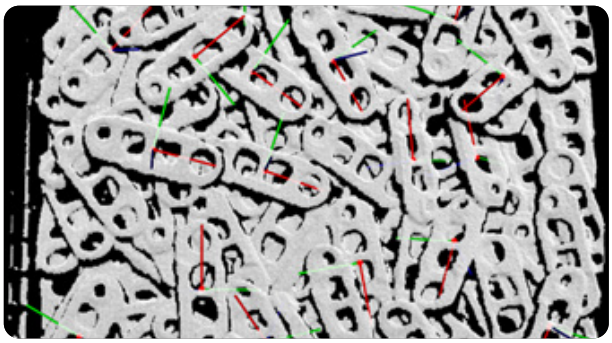
Inspection & measurement

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.

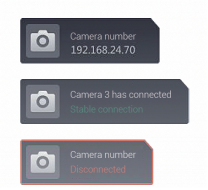
Production Interface new
Optimizes Your Production

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

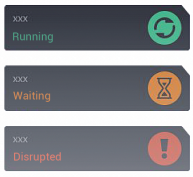


Communication service status

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

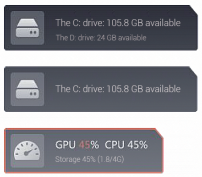
Project running status

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



System performance status

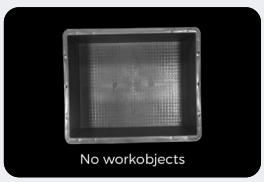
- Free space of the system disk
- Free space of other disk
- Memory usage
- CPU usage
- GPU model and usage



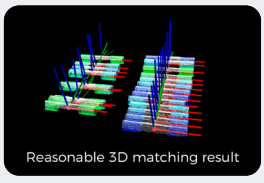
Control

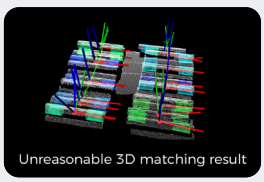
Users can customize the model for workpieces of various specs and shapes, allowing for flexible adaptation to various production lines.

Incoming materials

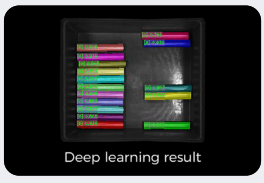


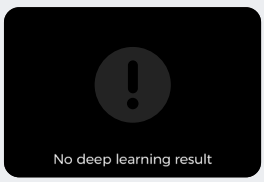
Recognition results



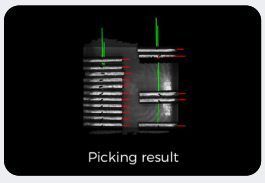


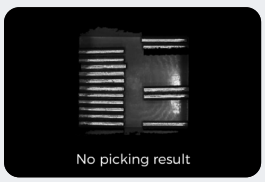
Deep learning results





Picking results





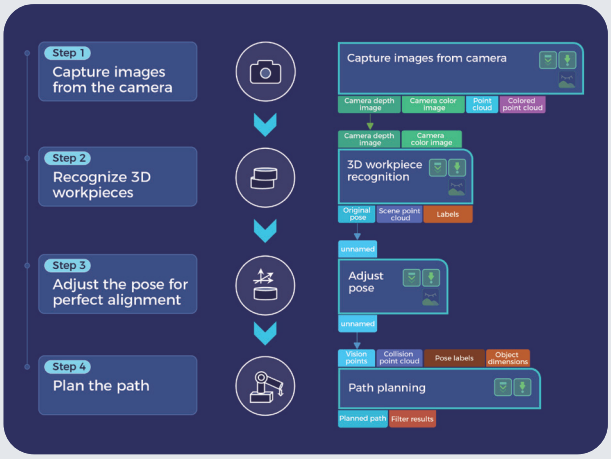
Maintenance

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

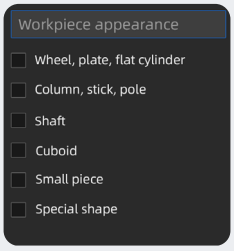
Set up your machine tending project in under 10 minutes with a simple four-step process.



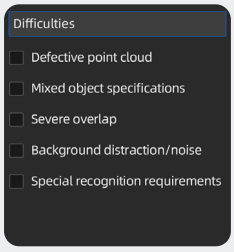
Extensive Solution Library for Faster and Easier Deployment

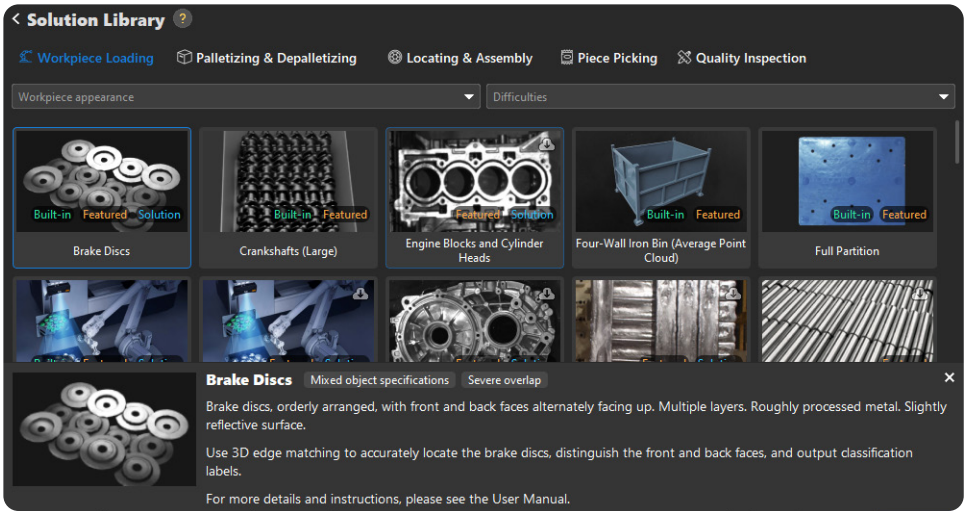
The new Solution Library makes it easy to browse **real-world projects and cases**. With its intuitive graphical interface and pre-installed project templates, you can effortlessly choose and optimize existing applications that best fit your needs, enabling quick and flexible deployment of your new project.

Selecting by workpiece shape



Selecting by project characteristics





Solution card tab

Built-in

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

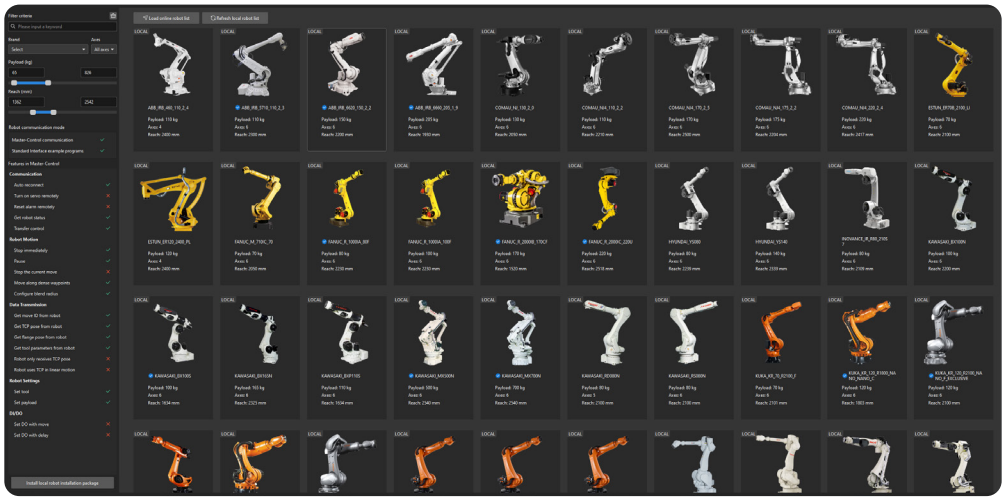
Solution

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

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

Website: www.mech-mind.com
E-mail (business): info@mech-mind.net
E-mail (PR & marketing): marketing@mech-mind.net

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

Documentation: docs.mech-mind.net
Online community: community.mech-mind.com