BOSHIYUAN

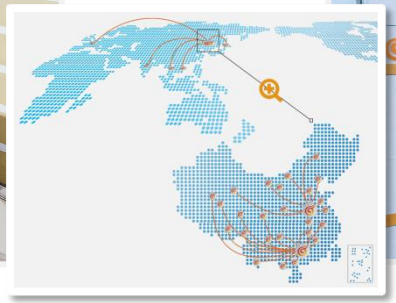
Enterprise Introduction for 2025

Originating from vision, beyond just visual;
originating in precision, pursuing excellence.

About Us

Xiamen Boshiyuan Machine Vision Co., Ltd

Xiamen factory



Wuxi factory

Xiamen Boshiyuan Machine Vision Co., Ltd. is a high-tech enterprise specializing in the research, development, integration, and service of machine vision systems. Our company independently develops and sells Machine mold-protector, One-button Measuring Instrument, CCD algorithm platforms, AOI intelligent AI inspection standard machines, and medical device hair foreign object detection systems. We are committed to providing intelligent inspection system solutions for manufacturing enterprises.

The company has achieved annual sales of over 6,000 units in the field of mold monitoring systems. The sales and service network now covers 30 provinces across the country. With factories in Xiamen and Wuxi, there are currently 15 full-time agents and over 30 cooperative distributors. After-sales services have been improved to cover regions including South China, East China, North China, and Southwest China.

Enterprise landscape

CONTENTS

01. Enterprise strength

Enterprise strength

Development History of Research and Development

2010–2012

Registered Boshiyuan Machine Vision Technology Co., Ltd.

launches the first generation Mold-protector.

2013–2015

Introducing the second generation Mold-protector.

launching the first set of image algorithms: BSY-VisionLib.

Successfully developing a universal non-standard detection system.

2016–2018

Successfully developed an embedded mold monitoring system

launched the third generation mold monitor

2019–2021

Successfully developed the second-generation universal non-standard detection system.

launching a variety of One-button Measuring Instruments with different measurement sizes

2022–2023

Introducing a modular/standardized AOI intelligent inspection platform,

Successfully developing AI vision deep learning algorithms,
launching an AOI detection system.

Integrated with motion control and AI deep learning,

Introducing the fifth generation of intelligent Mold-protector.

2024

launched the second-generation splicing imaging One-button Measuring Instrument

Official version of the fifth-generation intelligent Mold-protector is launched.

Integrated flexible vibration disc system has been successfully developed

for products produced by the supporting injection molding machine

launched Injection molding machine matching detection system

Launch the sixth generation mold monitor

Enterprise strength

2021-2024Expanding Territory

1 Efficient production

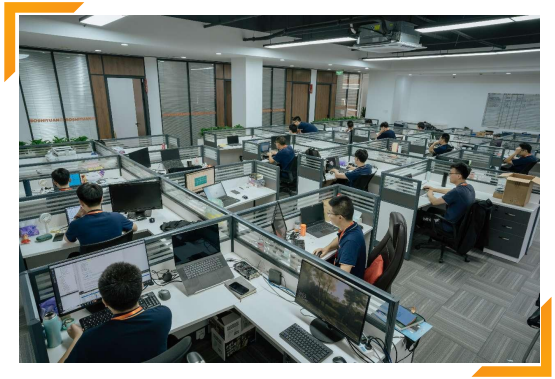
Establish a precision instrument production workshop, focusing on the production of One-button Measuring Instrument and AOI inspection equipment

2 Expanding the market

Establishing Wuxi boshiyuan visual smart solutions co., ltd and Dongguan Office will further enhance sales and service efficiency.

3 Talent Gathering

The team has expanded to over 100 people, with research and development personnel accounting for more than 50% of the company



Enterprise strength

Software developer

Huoyan Liang
R&D Director & General Manager

Sichuan University
Bachelor's degree

He has 18 years of research and development experience in embedded software and machine vision. He led the development of second/third generation high-precision mold monitoring systems, universal vision inspection systems, AI vision inspection systems, and one-click measurement instrument vision inspection systems at Boshiyuan.

Application Testing Supervisor

Purdue University in the United States - Master's degree

He used to work as an engineer at the Shanghai Aircraft Design and Research Institute of Commercial Aircraft Corporation of China (COMAC)
His areas of expertise are fluid mechanics, aerospace engineering, and intelligent manufacturing software

Algorithm engineer

Harbin Institute of Technology, Master's degree

He used to work as a research and development engineer at Huawei.
His expertise lies in the fields of image processing algorithms, deep learning, computer vision, and feature learning.

Software engineer

Tongji University Bachelor Technical University of Applied Sciences Bochum, Germany, Master's degree.

"He has 7 years of experience as an image algorithm engineer.
He is proficient in the fields of 2D and 3D vision, with extensive experience and mastery of various computer vision algorithms."

Algorithm engineer

South China University of Technology, Master's degree.

He has 9 years of experience as a visual engineer. His expertise lies in high-precision algorithms.

Electrical Software Group Supervisor

Electrical Software Group Superviso

An intermediate mechanical engineer, he previously worked as an algorithm engineer at Xiamen Tungsten Co., Ltd. Specializing in the fields of image processing algorithms and deep learning

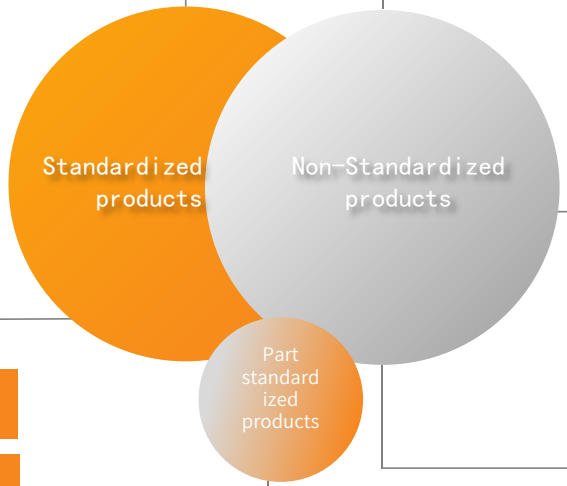
AI Engineer

Xiamen University Master's degree

He has 10 years of experience as a visual engineer.
His expertise lies in computer vision, traditional object detection algorithms, and deep learning.

Enterprise strength

Product line



Mold-protector

- Injection molding/ stamping/die casting
- Wireless operation
- Manufacturing Execution System can be created
- Leading in national sales
- The mold inspection inside is matched with the product inspection outside of the mold

One-button Measuring Instrument

- Stitching together images to create a wide field of view
- Convenient operation/compact size
- The highest repeatability accuracy is ±1.5μm
- The measurement function has good compatibility

AOI intelligent AI inspection standard machines

- Modularization/Semi-standardization
- AI model + comprehensive angle detection
- Stable operation/high efficiency
- Measurement and detection have strong universality

Non-standard customization

- Deep customization
- Visual program/visual program + institution
- Machine vision empowers production lines
- independently developed over a hundred visual algorithms
- AI deep learning model
- Front-end visual + back-end packaging

Non-standard production line/automation solution

- Complete coverage of the production line
- Wide industry coverage
- Meet the needs of customers
- Improve product productivity

Semiconductor testing equipment

- Modularization/Semi-standardization
- Compatible with multiple sizes of wafer semiconductors
- The highest measurement accuracy is 0.2μm
- The minimum detection size is 0.5μm

Enterprise strength

Business cooperation

CHINT Group Co., Ltd.

Zhejiang Kindly Medical Devices Co., Ltd.

Wuxi Yushou Medical Instrument Co., Ltd.

Tongda Group

ederic Machinery Co., Ltd

Shandong Ande Healthcare Apparatus Co., Ltd.

Samsung Group

AAC Technologies Holdings Inc

Midea Group Co., Ltd.

Luxshare Precision Industry Co., Ltd.

L.K. Group

BOE Technology Group Co., Ltd.

Jiangsu Gian Technology Co., Ltd.

Huawei Technologies Co., Ltd

Xiamen Hongfa Electroacoustic Co.,Ltd.

Ningbo Haitian Zhilian Technology Co., Ltd

Goertek Inc.

Hon Hai Precision Industry Co., Ltd

Berpu Medical Technology Co., Ltd

AUX Group Co., Ltd

02 Hardware Introduction

Mold monitor

Intelligent machine vision system detecting injection Molding/Stamping/Die castin

The mold protector, also known as the mold monitor or mold electronic eye, utilizes machine vision for comparative and detection functions to perform real-time calculations on image data. It monitors equipment operation in real time, providing a non-contact solution to prevent molds from being crushed and ensuring no other damages occur inside the molds. It is characterized by its ease of learning and use, flexibility, and lack of industry or geographical limitations。

Third-generation product

With an annual sales volume of 10,000 units, the equipment system has undergone more than ten updates, ensuring more stable operation and more accurate detection. The optional thermal imaging monitoring mode enables a broader in-mold detection dimension. The big data management system makes the management mode of remote monitoring readily available.

The fifth generation product

We have newly launched an industry-disrupting intelligent mold monitor. It uses an intelligent camera to match with a tablet or mobile phone. On the basis of the original mold monitoring, it has been upgraded to achieve wireless monitoring operation and the construction of the workshop MES system.

The sixth generation product

Built-in AI large model for more accurate detection; The entire series is equipped with a facial recognition system as standard, making permission management more scientific. The newly designed appearance and system UI make the user experience better.

Third-generation product

The fifth generation product

The sixth generation product

Mold-protector

Sixth generation mold monitor - Core advantage

1
Significant upgrade of hardware
14-inch large screen/8-core CPU/ dual-material spliced design

2
The face recognition module was pioneered
Precise classification of account permissions and more convenient operation traceability

3
AI large model embedding
Adopt feature comparison - fearless of external interference

4
Brand-new UI design
More friendly human-computer interaction/more aesthetically pleasing interface

5
Big data management system
Remotely monitor all the machines in the workshop

6
Thermal imaging intracellular monitoring
Monitor mold temperature/Customize temperature control

7
International leading detection accuracy
Self-developed complete image algorithm - BSYVisionLib
It can correct an error of 10mm

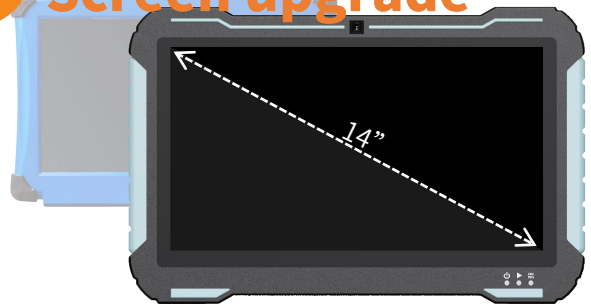
8
High-definition imaging/precise detection
Adopt a global exposure CMOS camera
The dynamic range is wider

9
One-to-many efficient linkage
In simple environments, one mold and maintenance machine can be matched
Multiple terminals

Mold-protector

Sixth generation mold monitor - Hardware upgrade

Screen upgrade



Screen size13.3"→14"

Screen to body ratio 57%→72%

CPU upgrade

intel

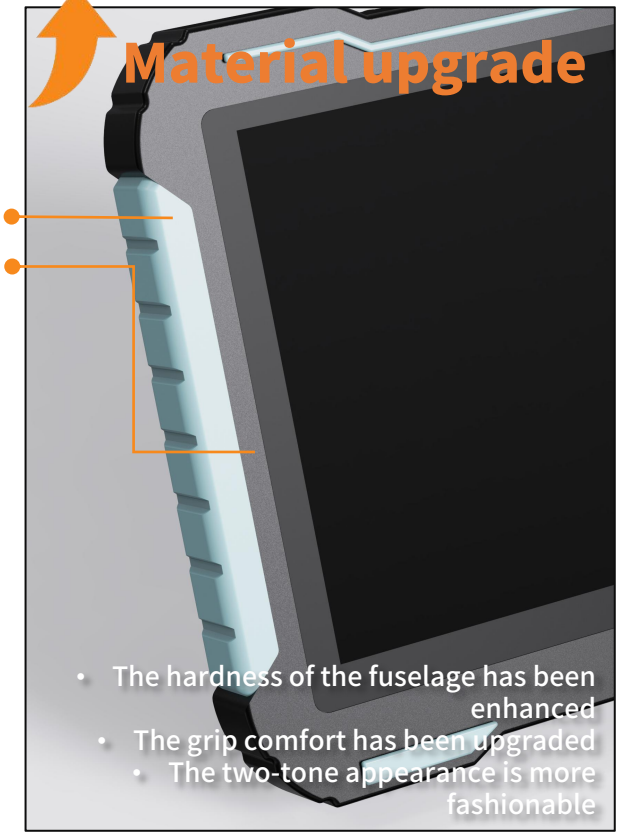
- N95 3.40GHz
- N97 3.60GHz
- N305 3.80GHz

Configure quad-core and octa-core cpus for faster AI algorithm processing speeds

Material upgrade

TPE

ABS

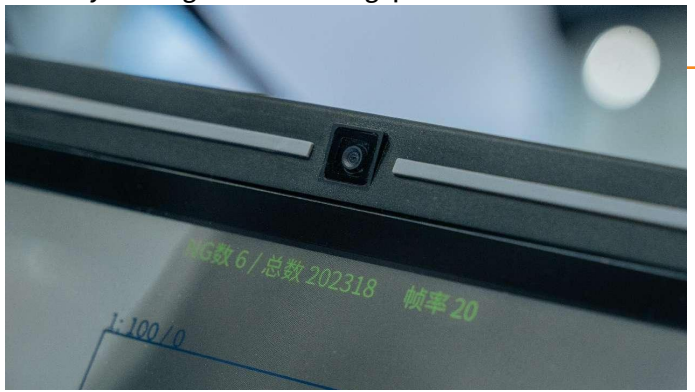


- The hardness of the fuselage has been enhanced
- The grip comfort has been upgraded
- The two-tone appearance is more fashionable

Mold-protector

Sixth generation mold monitor - Facial recognition module

Industry-leading - Built-in 2-megapixel camera



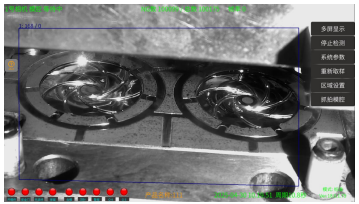
The system's first creation - facial recognition account creation and information management

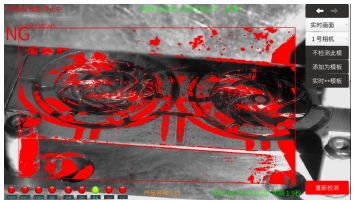
Key management points of in-mold production monitoring	Face recognition system
Non-professionals made incorrect Settings in the background, resulting in the inability of the in-mold monitoring to accurately identify abnormal situations within the mold	Enter the face, create an independent account, and customize the operation permissions of the options in the system Settings to ensure that key Settings can only be operated by dedicated personnel
The system Settings have no historical operation records, and abnormal situations cannot be traced	You can operate the system only after logging in to your account. Every step is recorded
When an alarm occurs inside the mold, it is mistakenly judged as a false alarm by humans. Abnormal collected images inside the mold are added as false alarm templates, resulting in continuous mold pressing when this scene recurs	Non-professionals cannot operate the addition of templates. Ensure that the normal templates within the mold are authoritative

Mold-protector

Sixth generation mold monitor - AI large model

The monitoring principle of traditional mold monitors on the market - pixel comparison





Imaging offset after simulating camera displacement - Large alarm within the detection box

After integrating the model of AI deep learning - feature comparison

The imaging offset after simulating the camera displacement - if the features within the frame remain unchanged, no alarm will be triggered

Training logic of AI models

The model is trained by accumulating thousands of image datasets of different types, enabling it to have a strong feature extraction and recognition ability

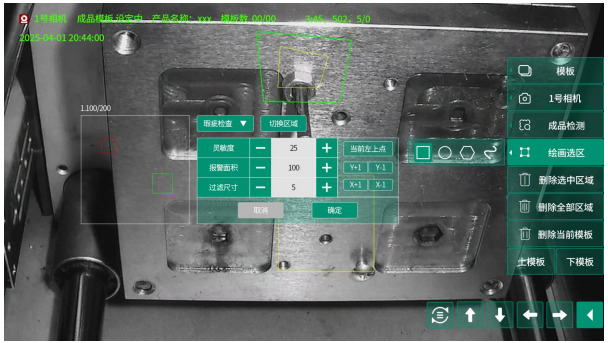
External interference situation	The drawbacks of pixel contrast	The advantages of feature comparison
Excessive vibration during mold closing causes the camera to shift	False alarm	does not trigger the alarm
The image of the prop mold changes color when the external natural light changes too much	False alarm	does not trigger the alarm
When the stamping die is recovered by the blanking die rod, it is lifted up, causing the material to shift up and down	False alarm	does not trigger the alarm

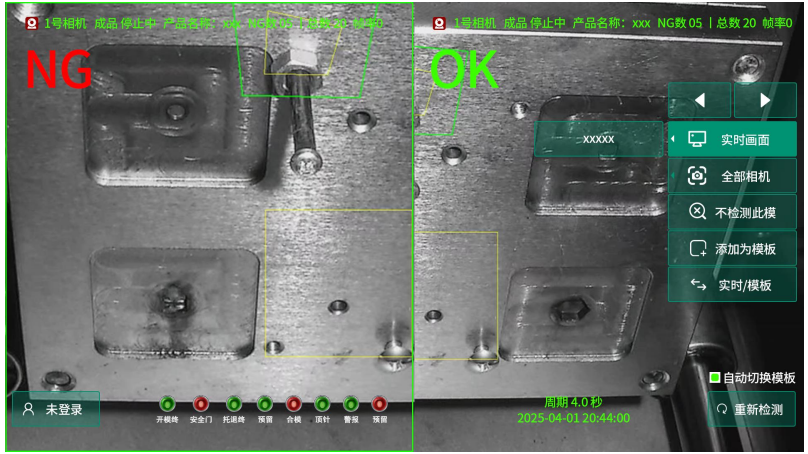
Mold-protector

Sixth generation mold monitor - Brand New UI Design

Brand-new UI design

- A tech-savvy and simple style
- The display interface is clearer
- It is easier to operate





Mold-protector

Fifth-generation mold monitor - Intelligent camera

Smart camera

Each terminal no longer needs to match a bulky host, but instead integrates the host's motherboard into the smart camera to achieve image planning. By setting up an in-house monitoring LAN, this mold monitor can be wirelessly controlled using a regular tablet/phone. With a customized app, background data statistics and uploading can also be achieved

Upgraded Mold Monitor

- No need for an industrial control computer
- Smarter | More convenient
- The UI has been optimized

Mold-protector

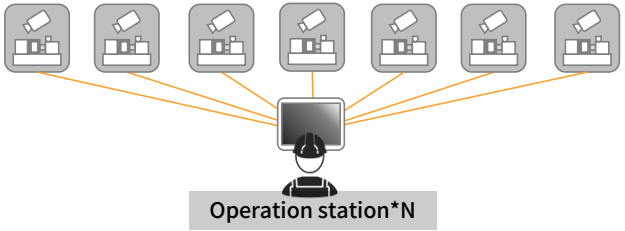
Fifth-generation mold monitor - Four major upgrades

Four major upgrades of smart cameras

01

Product Upgrade - Decrease in Hardware Costs

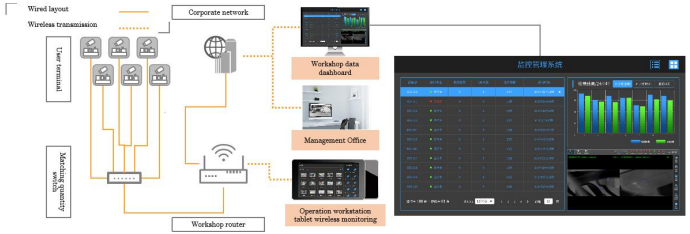
The design eliminates the need for a host and screen, reducing procurement costs by 80% compared to the old model. Multiple terminal devices can be connected to a single mobile device (optional tablet/phone) for display and operation



02

Product Upgrade - Reduction in labor costs

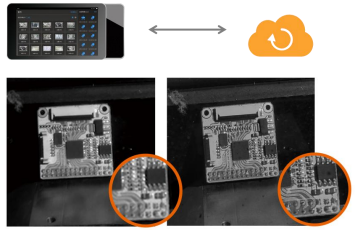
eal-time uploading of monitoring data, **one person can supervise multiple workstations, significantly reducing labor costs.**



03

Product Upgrade - Establishing an MES

Based on the interconnection of terminals in the workshop with a wired network layout, real-time monitoring data of injection molding machines can be collected through the fifth-generation mold protector. **The production real-time data and historical statistical data can be remotely viewed on the workshop data board and in the offices of company management, creating a manufacturing execution system (MES) for the workshop** and achieving intelligent upgrading of the workshop.



04

Product Upgrade - Improvement in production efficiency

It can be connected to the internet for online backend debugging and upgrades; it uses self-developed cameras to further improve imaging resolution and effectively reduce false positive rates。 **The operating end is a PAD/mobile phone, which can wirelessly monitor and operate the mold through a mobile app within the local area network.**

Mold-protector

Third-generation mold monitor-Core advantage

1. **Wide market coverage**
   Over 10,000 units sold in 2024

2. **International leading detection accuracy**
   Self-developed complete image algorithm -BSYVisionLib
   It can correct an error of 10mm

3. **Data management system**
   Remotely monitor all the machines in the workshop

4. **High-definition imaging/precise detection**
   Adopt a global exposure CMOS camera
   The dynamic range is wider

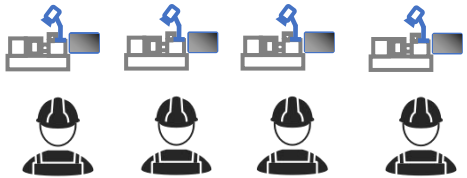
5. **Thermal imaging intracellular monitoring**
   Monitor mold temperature/Customize temperature control

6. **One-to-many efficient linkage**
   In simple environments, one mold and maintenance machine can be matched
   Multiple terminals

▸▸Mold monitor

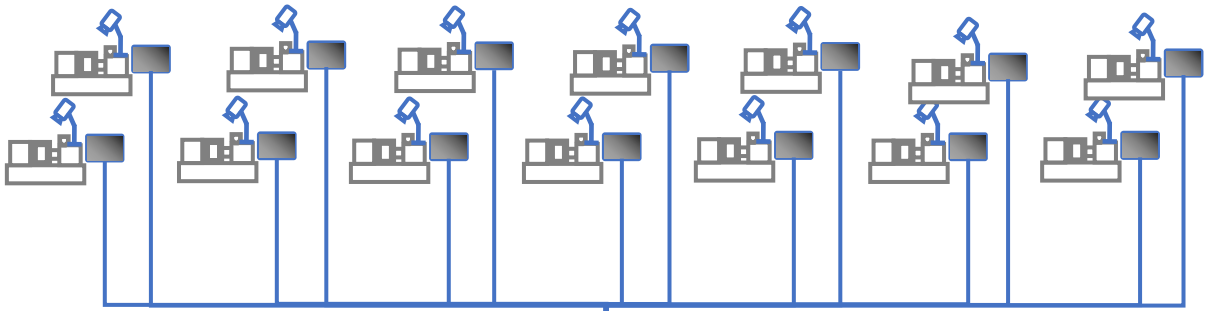
Third-generation mold monitor-
Big Data Management System

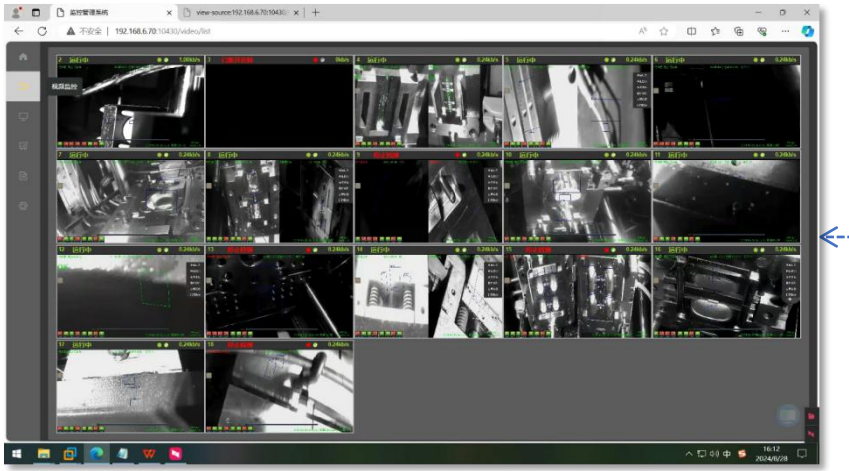
Remote visualization and integrated real-time monitoring of molds at the equipment



mold×N ▷ operator×N

Upgrade





mold×N ▷ operator×1

The real-time situation inside the mold is visually displayed

The labor cost has dropped significantly

▶▶Mold monitor

Third-generation mold monitor-
Big Data Management System

MES

The production data of the workshop is automatically statistically analyzed and graphically displayed

The overall operational stability of the workshop terminal and the rate of defective products are known

Statistics of the number of online devices

The total production volume at the workshop terminal /NG statistics

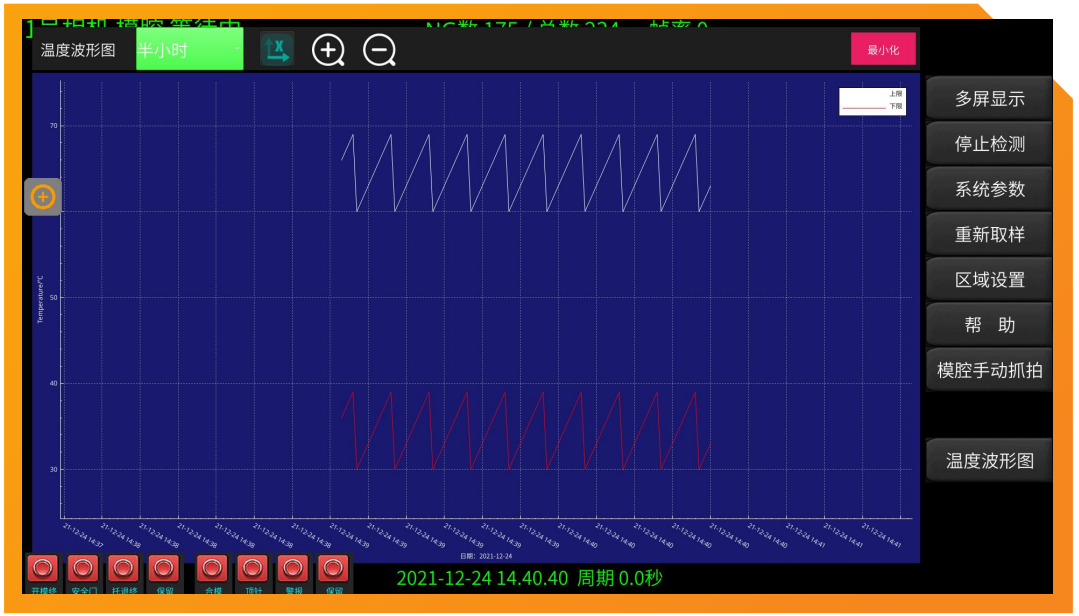
Terminal operation status Real-time update

Mold-protector

Third-generation mold monitor-
Thermal imaging intracellular monitoring

Function in details

- Thermal sensitivity]≤55mk
- Thermal response time＜15ms
- Non-contact temperature measurement
- Abnormal temperature alerts can be set
- 4 temperature modes (low temperature, medium temperature, high temperature, custom)



Automatically record each time Temperature measurement data

Measurement data is automatic. Generate the waveform diagram

You can customize the time period for viewing Relevant waveform diagram

Mold-protector

Third-generation mold monitor-
Thermal imaging intracellular monitoring

Case show

Toilet lid

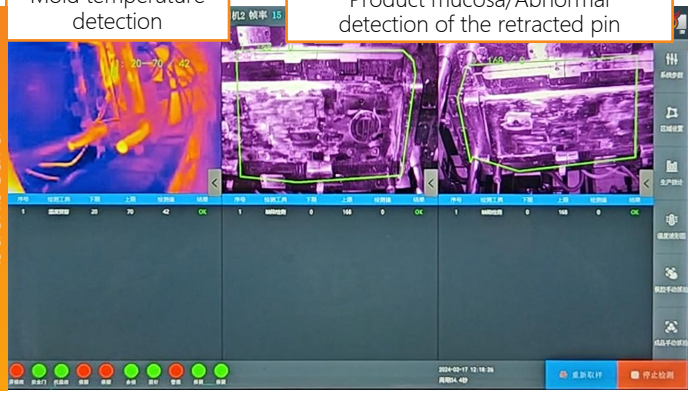
Mold temperature detection

Abnormal detection of the retracted pin

Air conditioning backboard

Mold temperature detection

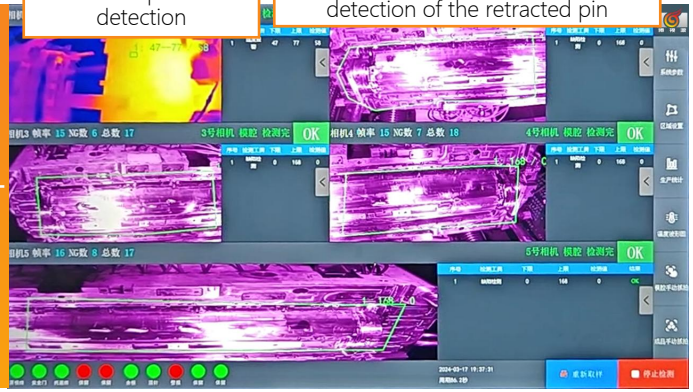
Product mucosa/Abnormal detection of the retracted pin



Air conditioning front cover plate

Mold temperature detection

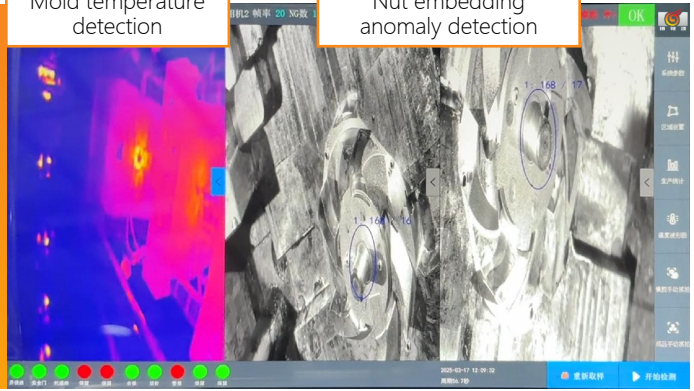
Product mucosa/Abnormal detection of the retracted pin



Fan blade

Mold temperature detection

Nut embedding anomaly detection



One-button Measuring Instrument

Accurate measurement/control of quality

Desktop-type rapid measurement system, only requires pressing a button after placing the product to obtain measurement data

- Desktop architecture, compact size, easy to carry, suitable for placement on or next to the production line, facilitating quick measurement of product dimensions.
- After placing the product, simply press a button to measure, or connect customer IO signals for fully automated measurement.
- The data report can automatically upload customer data to the management system.

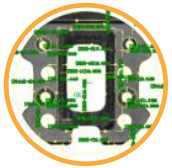
Fast measurement speed, simple and easy-to-understand software operation

- It only takes 1 second to measure the dimensions of 100 workpieces, significantly reducing measurement time.
- The software interface is simple and easy to understand, the human-computer interaction process is simplified, and measurement program coding can be easily conducted.
- The camera is equipped with autofocus, automatic positioning, and automatic measurement functions, so that anyone can obtain the same detection results regardless of their operation.

The next generation of hardware combined with powerful AI algorithms achieves high-precision measurement of product surfaces

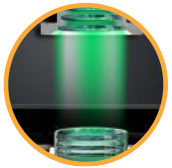
- The-bi-telecentric lens paired with two 20 million pixel cameras, automatic lifting upper surface light source and upper surface coaxial light source
- Our self-developed powerful AI edge recognition algorithm accurately and quickly identifies the edges of product surfaces, filtering out debris, defects, and other influences.
- By achieving high-precision measurement of surface dimensions, the repeatability of measurement data for product surface light imaging can be achieved at the same level as backlight imaging.

One-button Measuring Instrument



20 million pixel camera*2

Both wide-angle cameras and narrow-angle cameras have a resolution of 20 million pixels, combined with edge detection algorithms to achieve easy measurement of surface light.



Adjustable light source

Built-in brightness sensor automatically adjusts lighting for optimal visual effect.

Dual field of vision Double telecentric lens

Lower image distortion， ensures that the imaging pictures remain undistorted at locations with high disparities and edges, eliminating concerns about variations in measurement positions.

A stable and mobile large-scale measurement platform

The measurement range of the measuring platform is 300mm x 200mm x 75mm.

One-click quick measurement

After placing the product, pressing a button completes the measurement.

One-button Measuring Instrument

Single-view camera model

Vertical desktop model

BSY-V25

Vertical desktop model

BSY-V50

Vertical desktop model

BSY-V100

Lying-down desktop model

BSY-H50

Vertical floor-standing machine model

BSY-V200

Dual-camera models

Vertical desktop model

BSY-VD25-100

Splicing into a dual-camera model that resembles an image

Vertical desktop model

BSY-VM200

Vertical desktop model

BSY-VM200

Vertical desktop model

BSY-VM200Plus

One-button Measuring Instrument





Vertical desktop model		BSY-V25	BSY-V50	BSY-V100	BSY-H25	BSY-H50	BSY-V200	BSY-VD25-100	BSY-VM200		BSY-VM300		BSY-VM200 PLUS	
Imaging mode		Single camera	Single camera	Single camera	Single camera	Single camera	Single camera	dual cameras	Stitching images together		Stitching images together		Stitching images together	
Measurement range	High-precision measurement mode	/						25*18mm	One-time exposure	26*18mm	One-time exposure	26*18mm	One-time exposure	6.4*4.8mm
									Stitched imaging	100*100mm	Stitched imaging	200*120mm	Stitched imaging	206.4*104.8mm
	Wide-angle field measurement mode	ϕ25	ϕ50	ϕ100	ϕ25	ϕ50	211*141 mm	ϕ100	One-time exposure	ϕ100	One-time exposure	ϕ100	One-time exposure	18.8*14.1mm
									Stitched imaging	200*200mm	Stitched imaging	300*200mm	Stitched imaging	218.8*114.1mm
Measuring height		30mm	30mm	50mm	/		70mm	50mm	75mm					
Repeat accuracy	High-precision measurement mode	/						± 1.5μm	± 2μm				±1μm	
	Wide-angle field measurement mode	±1μm	±1.5μm	±3μm	±1μm	±1.5μm	⩽5μm	±3μm	±4μm				±1.5μm	
Repeat accuracy	High-precision measurement mode — One-time exposure	/						±3μm	±2μm				±1μm	
	High-precision measurement mode — One-time exposure	/							±2+L/50μm				± (1.5+L/50) μm	
	Wide-angle field measurement mode — One-time exposure	±2μm	±3μm	±4μm	±2μm	±3μm	±5μm	±4μm	±4μm				±1.5μm	
	Wide-angle field measurement mode — One-time exposure	/							±4+L/50μm				± (2+L/50) μm	
optical system	Light source illuminating the surface	Adjustable Circular Light Source			/		Adjustable Circular Light Source							
	A light source that illuminates the contour	Green parallel bottom light source			/		Green parallel bottom light source							

Designated industry non-standard equipment

Create a Customized Production Line

Non-standard automation is a product line provided by Bosiyuan for users from various industries. After a thorough understanding of the user's inspection and automation needs, we can tailor a detection system for the customer. It is highly compatible and can be configured with a universal vision algorithm platform. The vision module can be integrated into the user's production line as a pure vision module or can be matched with an automation mechanism to be added to the user's production line.








AOI intelligent AI inspection standard machines

Modularize and standardize non-standard equipment

Standard models

General Vision Algorithms V21

Part Name	Quantity
15.6-inch display	1
Vibration feeder/ 500mmGlass turntable	1
130W pixel Global Shutter camera	2
0.5x Telecentric Lens	2
Parallel Backlight Light Source/Paraxial coaxial light source	1

High-end models

AI+General Vision Algorithms

Part Name	Quantity
15.6-inch display	1
Vibration feeder/ 800mmGlass turntable	1
130W pixel Global Shutter camera	5
Prism + ring light	2
500mm lens + cylindrical light source + backlight source	2
0.3x Telecentric Lens + Parallel Backlight	1

Production cycle of traditional non-standard equipment mechanisms ＞90Day

The manufacturing cycle of modular AOI inspection equipment. ≈20Day

The cycle was shortened from 60-90 days to 20 days
Production costs were reduced by 15%

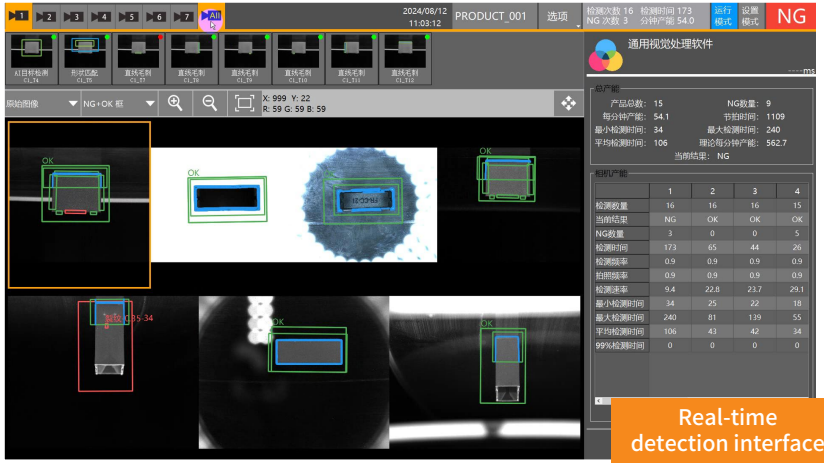
AOI intelligent AI inspection standard machines

Case of Automation Module with real machine

Feed on the conveyor belt

Overall visual module - Glass turntable

Octagonal prism vision module



Real-time detection interface

The vibrating feeding

Air blow

▶▶ Non-standard production line/automation solution

The automated production line is the main business of Wuxi Boshi Zhilian. Combined with the AI vision algorithm that Xiamen Boshi Yuan mainly focuses on, it has achieved more precise and intelligent automated production, forming a production closed loop from the front-end installation to the back-end inspection and packaging.

Visual silk-screen printing

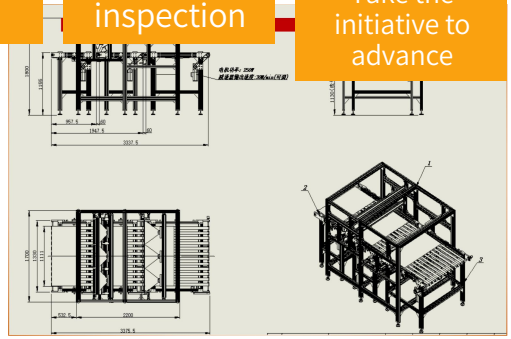
parts assembly

Integrated circuit

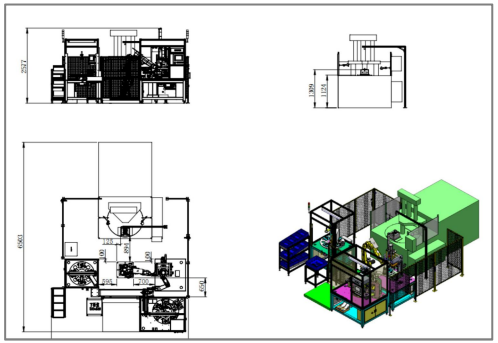
Visual positioning Precise labeling

Appearance quality Visual inspection

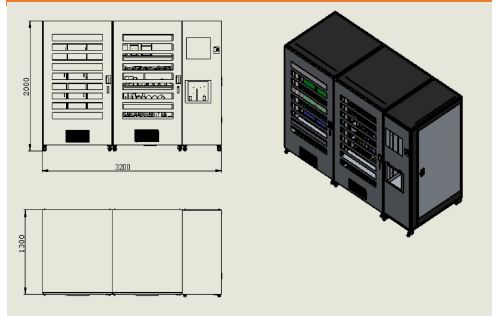
Intelligent information database Take the initiative to advance



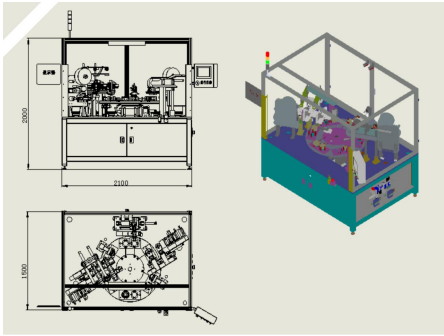
Sheet material (light guide plate) inspection items



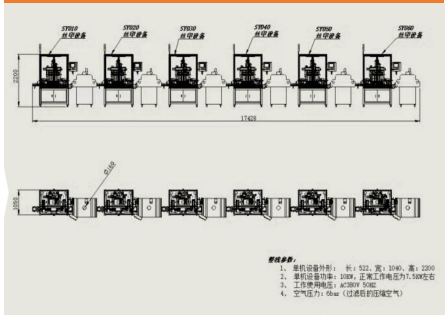
Automated production line for automotive parts processing



Intelligent micro warehouse project



Automatic labeling/online inspection equipment



Medical instrument panel silk-screen printing project

Semiconductor testing equipment

Automatic Overlay Measurement Equipment

Product Advantages

Compatible with 6-inch, 8-inch, and 12-inch wafers, supporting Flat and Notch positioning methods
A wide-spectrum illumination system is provided, supporting single-side, double-side, and internal Overlay measurement methods
Repeatability accuracy (3σ): Single-side ⩽ 0.25 nm, Double-side ⩽ 90 nm
It can be equipped with multi-point measurement on both sides, with a production capacity of 160WPH (single-sided) and 3OWPH (double-sided).
Supports Frame-in-Frame, Circle-in-Circle, Cross-in-Cross, or any other custom Mark.

Compatible with 6-inch, 8-inch, and 12-inch wafers, supporting Flat and Notch positioning methods
A wide-spectrum illumination system is provided, supporting single-side, double-side, and internal Overlay measurement methods
Measurement Repeatability Accuracy (3σ): Single-side ⩽ 0.25 nm, Double-side ⩽ 90 nm
Single-sided and double-sided configurations can be equipped with multi-point measurement. The production capacity is 160WPH (single-sided) and 30WPH (double-sided)
Supports Frame-in-Frame, Circle-in-Circle, Cross-in-Cross, or any other custom Mark
With the nanoscale motion platform and high-performance objective lens, the imaging uniformity is ensured
With a fully automatic EFEM module, it supports dual-station material handling
It has Overlay offset vector report and visual graph output capabilities
Supports automatic calibration of the entire machine, improving measurement accuracy through specific compensation algorithms
Supports SECS/CEM interface protocol, enabling remote device monitoring and maintenance

Semiconductor testing equipment

Fully Automatic Wafer AOI Equipment

Product Advantages

It is compatible with 8-inch and 12-inch wafers with graphic wafer inspection. It can also be customized to meet the inspection needs of 4-6-inch wafers, as well as the inspection needs of re-cut and re-assembled wafers

Test Objectives: RDL, Bump, Pad, PMI, UBM, Via, Overlay, Chipping, etc.

Detection capabilities: defect location, length, width, area, target length, width/diameter/hole, offset, missing, etc.

Minimum detectable defect size: 0.5um

An AI-based visual fusion solution developed in-house effectively enhances defect detection capabilities and reduces the rate of defects being overlooked.

With AI-based ADC functionality, defect classification accuracy > 98.96%

Capacity > 35WVPH (@12-inch wafer, 5x magnification, excluding re-inspection time)

Defect miss detection rate ⩽ 0.2%, false detection rate ⩽ 1%, detection repeatability > 99%

Supports SECS/GEM interface protocol, which enables remote device monitoring and maintenance.

The fully automatic wafer AOI equipment BSY-W360, based on the 2D wafer AOI equipment MRS-WI260, adds 3D structural measurement function, is one of the core inspection equipment for product yield management in advanced packaging factories

Compatible with 8-inch and 12-inch wafers with graphical wafer inspection, compatible with 2D defect detection and 3D measurement capabilities.

Applicable products: S1, compounds, ceramics, TSV, etc

Test Objects: Copper pillar, solder, gold bumps, micro bumps, TSV, etc

Measuring Content: Height, Depth, Coplanarity Measurement, etc.

Measuring Range: BH: 1-3000 m; BD: 10-3000 μm

High measurement accuracy: ⩽0.2μm

Conformity analysis methods: Peak to Peak, Peak to Avg, Peak to LMS, etc

Capacity: 230WPH (@12-inch wafer, excluding re-inspection time)

Supports SECS/GEM interface protocol, enabling remote device monitoring and maintenance

03 Software Introduction

Universal Visual Algorithm Platform

Meeting the visual inspection needs of 99% of the market

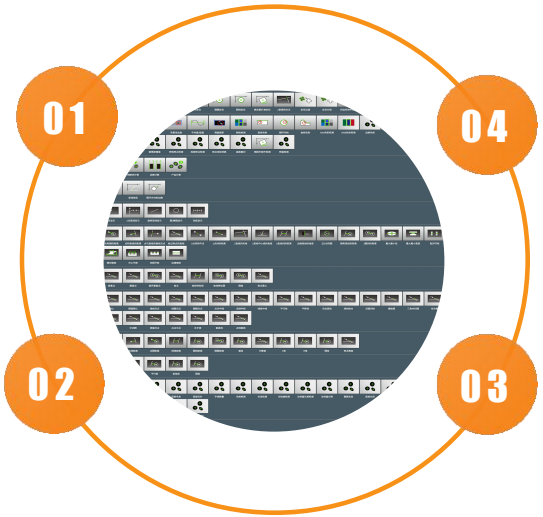
BSYvision System is a universal intelligent high-speed machine vision application development platform, mainly designed for multiple visual inspection functions and requirements in automated production lines, such as target positioning, quality defect detection, appearance and size measurement, part counting, identification confirmation, and automated alignment and assembly. Its hardware includes a visual processor, camera, light source, lens, and auxiliary accessories. It provides customers with high precision and stability machine vision solutions.

The development time cost is low

A visual algorithm library has been established, with diverse software functions. The development time cost is low.

Software version consistency

99% of visual inspection needs in the market are applicable



Introduce AI algorithms to reduce false alarm rates

It can be combined with AI algorithms to learn various examples of false alarms and continuously reduce the false alarm rate

The system is stable and has few bugs.

The software features have been extensively tested in the market and the system is stable with few bugs.

Flexible Vibration Tray System

Redefining Flexible Vibration Tray System

ps：Due to the confidentiality agreement of the client's product not yet expiring, the image has been blurred.

Our self-developed flexible vibration plate system has optimized the human-machine interaction logic and **interface with one-click calibration**. We have also developed a one-click calibration function to make operation more convenient. Meanwhile, our self-developed industrial vision positioning technology can help the robot accurately locate and grasp materials. In software, we have built-in multiple safety logic barriers to significantly reduce the robot's error rate.

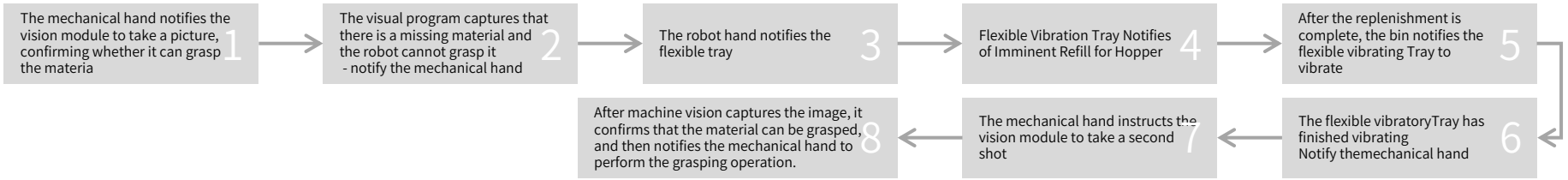
Flexible Vibration Tray System

Operational logic

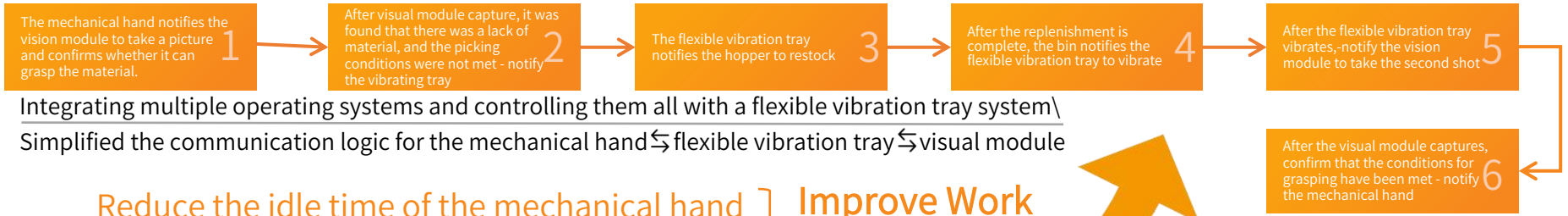
【Case: One Replenishment and One Pallet Vibration Achieve Picking Conditions】 --Process Explanation

The majority of flexible vibratory feeders on the market use the following communication methods:

The machine vision system and the Flexible Vibration Tray System are controlled by a robot program, and the communication method is too complex.



The communication method of the flexible vibration tray system developed by our company:

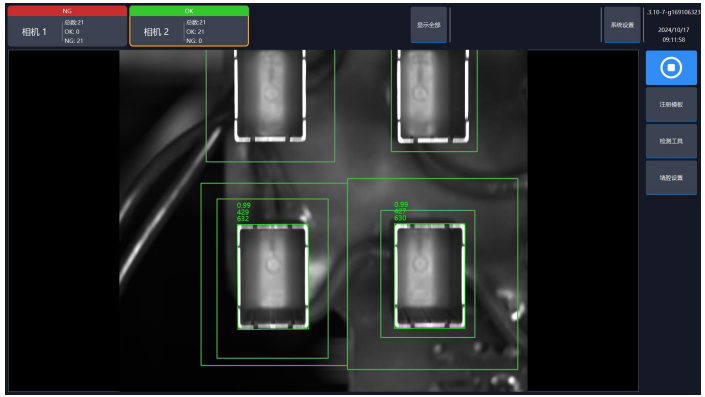


Integrating multiple operating systems and controlling them all with a flexible vibration tray system\

Simplified the communication logic for the mechanical hand⇆flexible vibration tray⇆visual module

Reduce the idle time of the mechanical hand
Reduce the communication time between devices.
} Improve Work Efficiency

Injection molding machine matching detection system

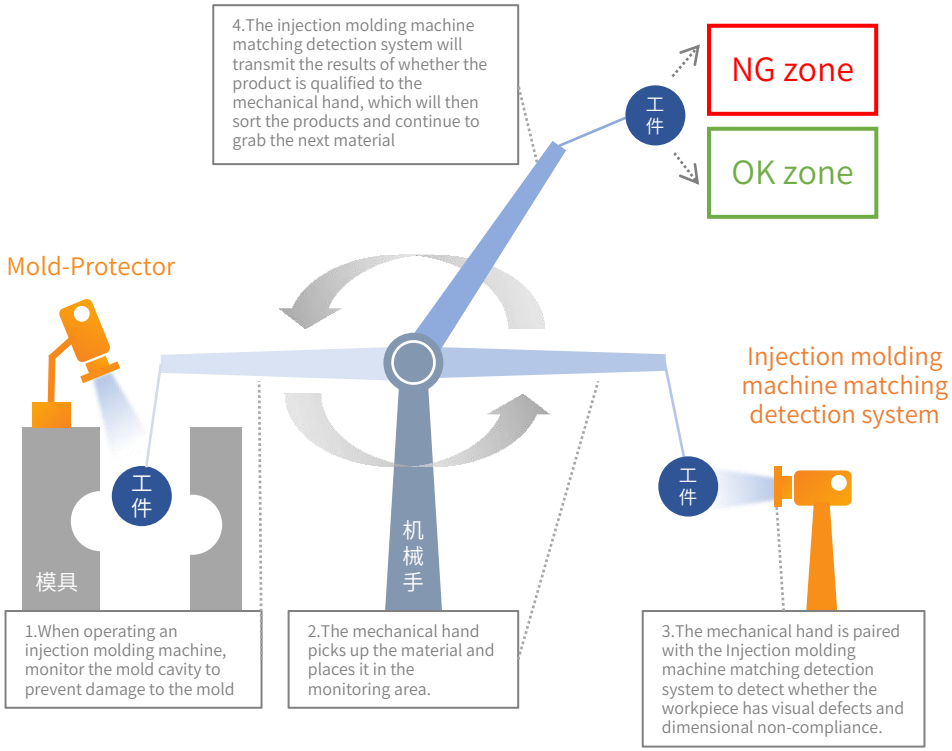


The Injection Molding Machine Matching Detection System is a mold-external product inspection system developed by BOSHIYUAN. This system can be matched with our Mold-protector to enable users to monitor abnormalities within the mold and inspect the appearance defects of injection parts outside the mold.

Advantage

Standardization | Good detection performance | Compatible with various mechanical hand
Smaller in size | Lower in cost | Simpler to operate

The process of working together between in-mold monitoring and injection molding machine matching detection system



04 Case Study Exhibition

Mold-protector

Some customers use mold protection devices

Pressure forming process

Injection Molding Process

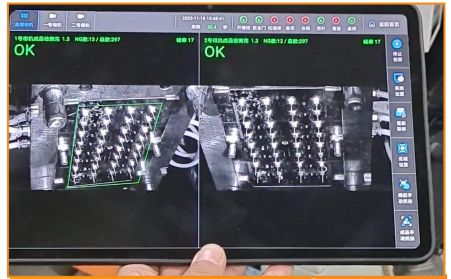
Die Casting Process

Inspection of rubber wrapping on products outside of molds

Crack detection of products outside the mold

Automotive parts - detection of abnormalities in the removal of parts from molds by mechanical hand

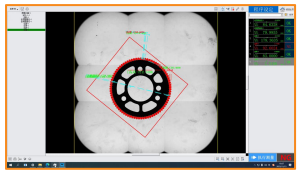
New energy vehicles - Detection of abnormalities in metal fittings embedded in the battery box



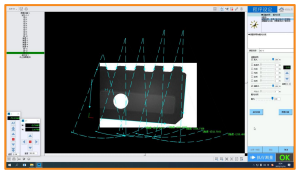
Monitoring the process of medical equipment parts being taken away from the hospital

One-button Measuring Instrument

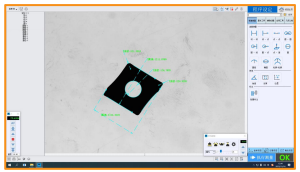
Some cases



Twin-camera style-Gear parts

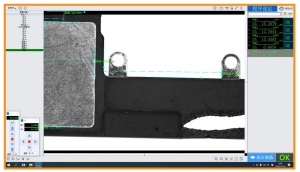


Assembled imaging style-Carbide cutting tools

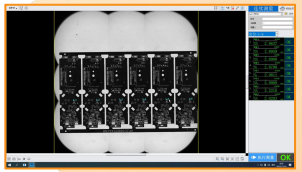


Single-camera style-Carbide cutting tools

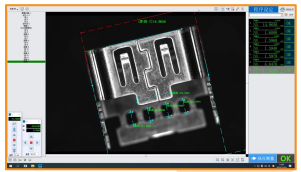
Twin-camera style-Metal fittings



Assembled imaging style-3C accessories

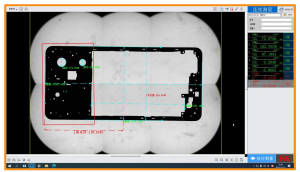


Assembled imaging style-PBC panel

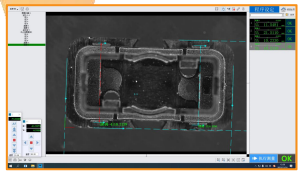


Assembled imaging style-Plastic accessories

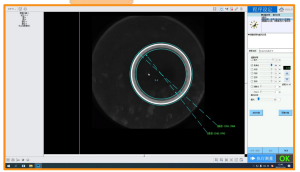
Single-camera style-Flexible board



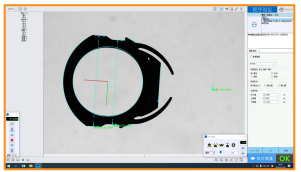
Assembled imaging style-Mobile phone frame



Assembled imaging style-Plastic Cover Plate



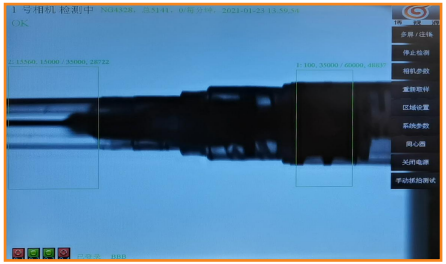
Assembled imaging style-Circular plastic ring



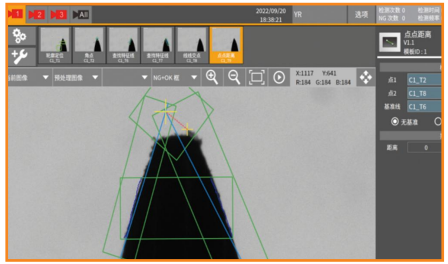
Single-camera style-Plastic accessories

Designated industry non-standard equipment

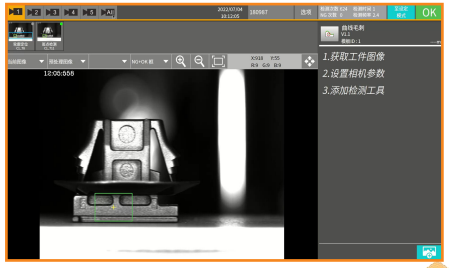
Some cases



Medical Industry - Syringe - Rubber Stopper Inspection



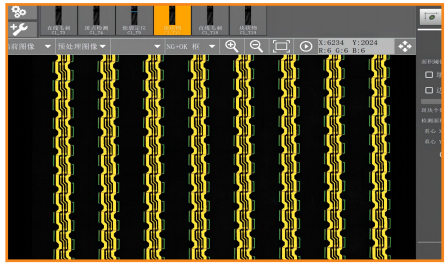
Medical Industry - Injection Needles - Needle Inspection



Automotive Parts Industry - Automotive Clips - Defect Detection

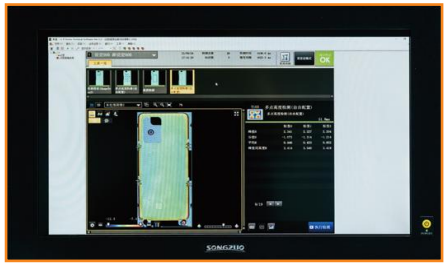
Automotive Parts Industry - Relay Housing - Defect Detection

Sanitary Ware Industry - Shower Head - Internal Diameter Test of Mist Nozzle



3C products - Optical Glass - Dimension/Defect Inspection

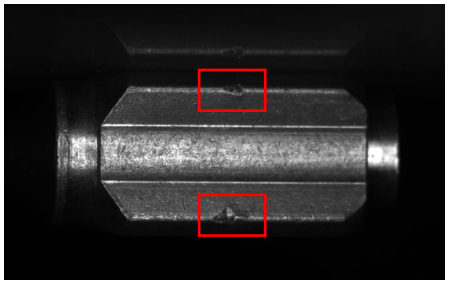
3C products - Headphone 3C products - 2D code, code encoding, brightness code detection/OCR recognition



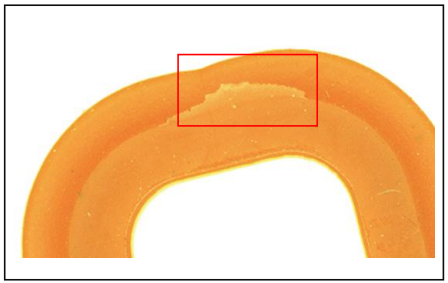
3C products - Mobile phone back cover - size, flatness, curvature, height detection

AOI intelligent AI inspection standard machines

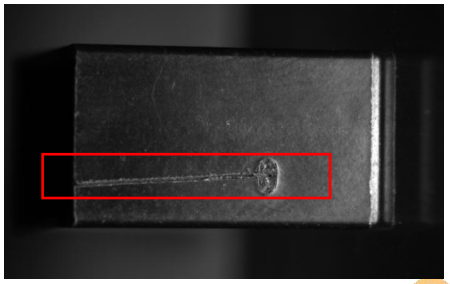
Some of AOI detection case



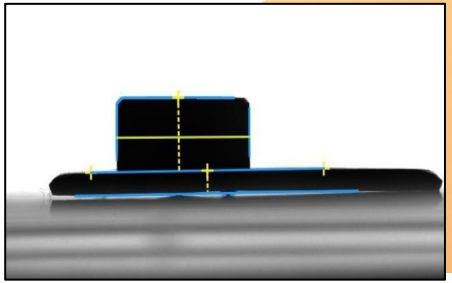
Needle valve core-The aluminium body is short of material



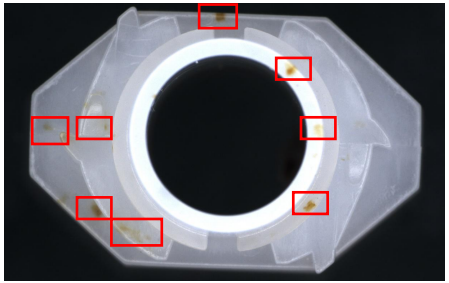
Liquid silicone rubber sealing ring - exhaust hole burr detection



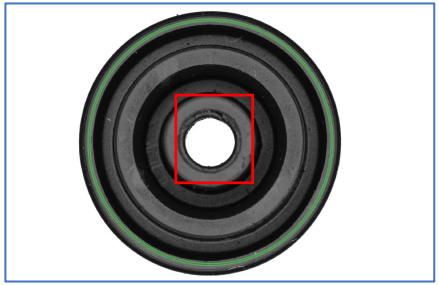
Relay housing - scratches



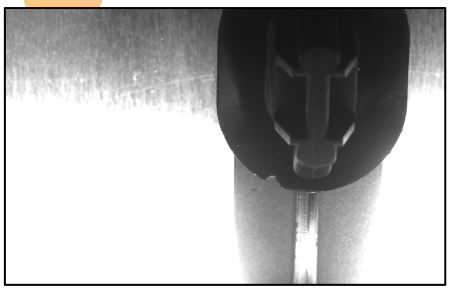
Nut - Height measurement



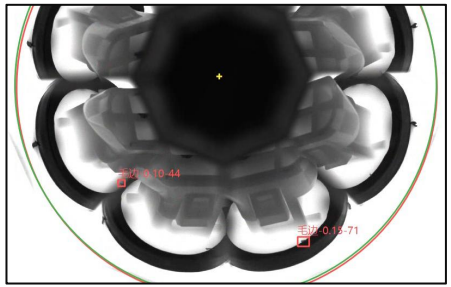
Packaging nozzle - dirty



Injection molding particles - holes and material shortage



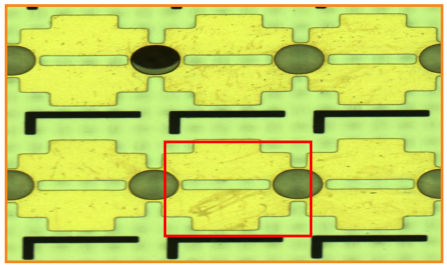
Car snap - edge shortage of material



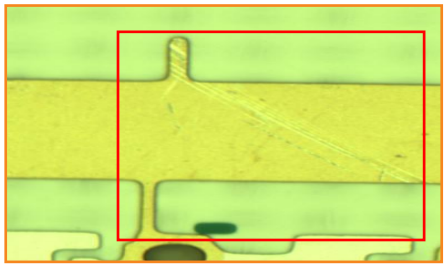
Rubber ring buckle - black dot

Semiconductor testing equipment

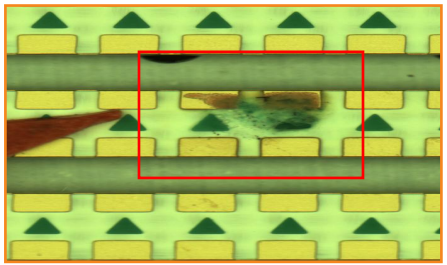
Appearance inspection of copper sheets



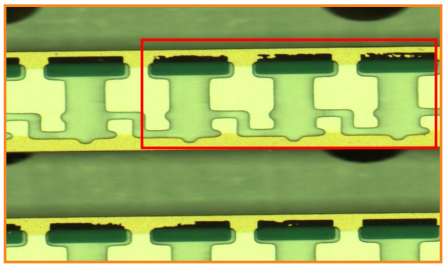
Defect type - Scratch



Defect type - Scratch

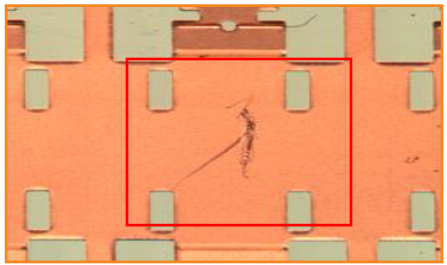


Defect type - Dirty

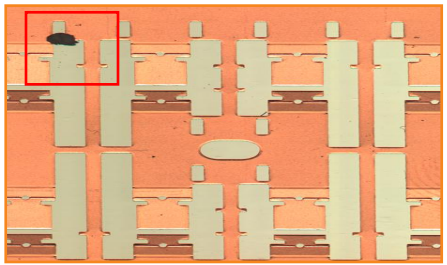


Defect type - Straight burrs

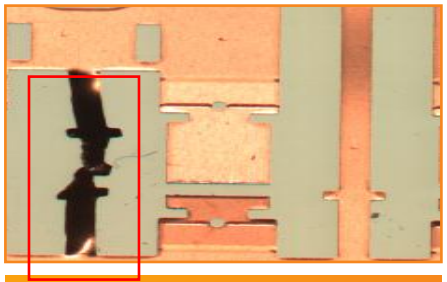
Wafer appearance inspection



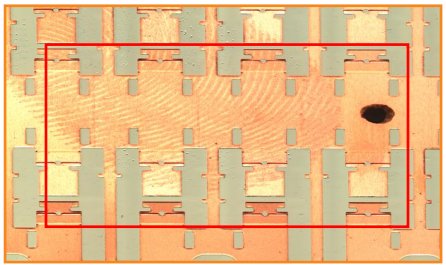
Defect type - Scratch



Defect type - Black spots



Defect type - crack



Defect type - Dirty

Xiamen BOSHIYUAN Machine Vision Technology Co., Ltd

Thank you

A factory in Xiamen, Fujian, China: No. 13-17 Yao Shan Road, Jimei District, Xiamen City, Fujian Province, China

A factory in Wuxi City, Jiangsu Province, China:No. 15 Houshan South Road, Building 4, Xizhi District, Wuxi City, Jiangsu Province, China

Sales tel：0086-592-6077810

Corporate Website：www.xmbsy.net