ALM AUTOMATION

2025

CATALOG

Industrial Labeling Systems

"High-Performance Automated Labeling Solutions for Modern Manufacturing"

Advanced Inline Labeling Systems Built for Speed, Precision, & Reliability

www.automatedlabelingmachine.com

☆ **Company Overview（ALM Automation | High-End | Official Edition）**

- Automatedlabelingmachine.com — Powered by ALM Automation

- ALM Automation is a technology-driven enterprise specializing in advanced industrial labeling and precision adhesive application automation. We focus on R&D, engineering design, precision manufacturing, and global after-sales support for high-performance automation equipment.

- Our mission is to modernize traditional production processes by delivering fast, accurate, and highly reliable automation systems— helping manufacturers increase productivity, stabilize output quality, and enhance long-term competitiveness.

- With strong expertise in vision-guided motion control, high-accuracy dispensing, and intelligent labeling technologies, ALM Automation develops solutions that enable factories to reduce labor dependency, achieve consistent quality, and scale their operations efficiently.

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★ Engineering Philosophy

- ALM Automation systems are engineered around three core principles:

- **Modular Architecture**

- Designed for streamlined maintenance, faster deployment, and long-term scalability.

Premium Component Selection

- We integrate globally recognized brands for all critical components—ensuring exceptional reliability and extended service life.

- **Industrial-Grade Quality Compliance**

- Every machine undergoes rigorous testing under 24/7 operating conditions to guarantee performance in demanding environments.

☆ What We Deliver

·Faster, more accurate production

·Lower reliance on manual labor

·Higher yield and product consistency

·Scalable automation for future expansion

·Intelligent vision-based production systems

Through deep engineering capability, dependable service, and continuous innovation, ALM Automation is emerging as a trusted global partner in industrial labeling and adhesive automation.

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☆ **ALM Automation**

01 · High-Performance Industrial Labeling and Vision Automation Systems

02 Precision Labeling. Intelligent Automation

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ALM-1000 Single-Nozzle Vision Labeler (Open Type)

01 ☆ Application Range

02 ·The equipment is suitable for:

03 ·3C electronics auxiliary material placement

04 ·Adhesive backing application for various products

05 ·Self-adhesive label placement and related processes

ALM AUTOMATION

☆ Function Overview

1 Feeder module automatically peels labels and presents them on the release plate for pickup.

2 A four-axis robotic arm picks up the adhesive backing or labels with high stability.

3 The bottom camera (vision system) detects the real-time position of the adhesive material.

4 The top camera identifies the coordinates of the target product.

5 The system calculates alignment coordinates through algorithms to achieve fully automatic, high-precision placement.

6 Placement accuracy: ±0.05 mm

7 Machine utilization rate: ≥95%

8 Pass rate: ≥99.5%

9 Waste rate during processing: ≤1%

10 Throughput: 1500–2000 pcs/hour

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☆ Main Configuration List（ALM Automation Version）

Item	Specification / Description	Unit	Qty
Machine Dimensions	700 × 700 × 1700 mm	set	1
Machine Weight	350 kg	set	1
Power Consumption	1200 W	set	1
Air Pressure	0.4 – 0.6 MPa	set	1
XY Linear Modules	Ball screw + linear guide (HIWIN / TBI) ※ Y-axis optional linear motor upgrade for double throughput	set	2
R-axis Motor	42 hollow-shaft stepper motor (Inovance / Leadshine)	set	1
Servo Motor	400W servo system	set	2
Z-axis Motor	Closed-loop 57 stepper motor（Leadshine）	set	1
Motion Control Card	Leadshine / Custom-developed by ALM Automation	set	1
Automatic Label Feeder	ALM Automation custom-designed feeder	set	1
Belt Conveyor Module	1500 mm length, ALM Automation non-standard build	set	1
Electrical Control System	ALM Automation custom electrical control cabinet	set	1
CCD Vision System	ALM Automation Vision Integration Software (Self-developed)	set	1
Top Camera	Hikvision 6MP / 20MP + industrial lens	set	1
Bottom Camera	Hikvision 6MP + industrial lens	set	1
Pneumatic Components	Airtac	set	1
Industrial PC	i5-4th Gen, Model: JLF-IPC-5402H-8G	set	1

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ALM AUTOMATION

ALM-1500 Single-Nozzle Vision Labeler (Closed Type)

1

☆ Application Range

2

The equipment is suitable for:

3

· Placement of auxiliary materials in 3C electronics

4

· Adhesive backing application for various products

5

· Self-adhesive label application and related processes

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✩ Function Overview

1 The feeder module automatically peels labels and presents them on the release plate for pickup.

2 A four-axis robotic arm picks up the adhesive backing or labels with high stability.

3 The bottom camera identifies the real-time coordinates of the adhesive material.

4 The top camera detects the target product coordinates for alignment.

5 The system calculates precise placement coordinates through algorithms, achieving fully automated bonding.

6 Placement accuracy: ±0.05 mm

7 Machine utilization rate: ≥95%

8 Pass rate: ≥99.5%

9 Defect rate: ≤1%

10 Throughput: 1500–2000 pcs/hour

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ALM AUTOMATION

✫ Main Configuration List (ALM Automation – Closed Type Version)

Item	Specification / Description	Unit	Qty
Machine Dimensions	700 × 700 × 1700 mm	set	1
Machine Weight	350 kg	set	1
Power Consumption	1200 W	set	1
Air Pressure Requirement	0.4 – 0.6 MPa	set	1
XY Linear Modules	Ball screw + linear guide (HIWIN / TBI)		
Y-axis optional linear motor upgrade for double throughput	set	2	
R-Axis Motor	42 hollow-shaft stepper motor	set	1
Servo Motors	400W servo system (Inovance / Leadshine)	set	2
Z-Axis Motor	Closed-loop 57 stepper motor (Leadshine)	set	1
Motion Control Card	Leadshine / Custom-developed by ALM Automation	set	1
Automatic Label/Adhesive Feeder	Custom-developed by ALM Automation	set	1
Belt Conveyor Mechanism	1500 mm length, non-standard build by ALM Automation	set	1
Electrical Control System	Custom electrical cabinet by ALM Automation	set	1
CCD Vision System	ALM Automation Vision Integration Software (self-developed)	set	1
Top Camera	Hikvision industrial camera, 6MP / 20MP + industrial lens	set	1
Bottom Camera	Hikvision industrial camera, 6MP + industrial lens	set	1
Pneumatic Components	Airtac	set	1
Industrial PC	Intel i5 (4th Gen), Model: JLF-IPC-5402H-8G	set	1

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ALM-2000 Piece-to-Piece Vision Labeler

★ Application Range

This machine is ideal for various products requiring adhesive backing, including:

·3C products (e.g., phone cases, electronic accessories)

·Toys

·Home and gift packaging

·Any other products needing precise adhesive application

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✫ Function Overview

Dual-Station Feeder: Ensures continuous loading without stopping, with automatic material lifting for uninterrupted production.

4-Axis Robotic Arm: Automatically picks up adhesive sheets with high precision and stability.

·Vision Recognition System:

·Bottom Camera: Detects real-time coordinates of the adhesive

·Top Camera: Identifies the product coordinates for accurate placement

·Intelligent Algorithm: Calculates position coordinates automatically for precise adhesive alignment.

✫ Technical Specifications

·Placement Accuracy: Up to ±0.05 mm

·Placement Success Rate: ≥95%

·Product Qualification Rate: ≥99.5%

·Process Scrap Rate: ≤1%

·Production Capacity: 1500–2000 pieces/hour

✫ Highlights

·High precision with minimal waste, perfect for mass automation

·Vision-guided intelligent alignment ensures reliable adhesive placement

Dual-station design maximizes continuous production efficiency

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★ Main Configuration List (ALM Automation – Closed Type Version)

Item	Specification / Description	Unit	Qty
Machine Dimensions	700 × 700 × 1700 mm	set	1
Machine Weight	350 kg	set	1
Power Consumption	1200 W	set	1
Air Pressure Requirement	0.4 – 0.6 MPa	set	1
XY Linear Modules	Ball screw + linear guide (HIWIN / TBI)		
Y-axis optional linear motor upgrade for double throughput	set	2	
R-Axis Motor	42 hollow-shaft stepper motor	set	1
Servo Motors	400W servo system (Inovance / Leadshine)	set	2
Z-Axis Motor	Closed-loop 57 stepper motor (Leadshine)	set	1
Motion Control Card	Leadshine / Custom-developed by ALM Automation	set	1
Automatic Label/Adhesive Feeder	Custom-developed by ALM Automation	set	1
Belt Conveyor Mechanism	1500 mm length, non-standard build by ALM Automation	set	1
Electrical Control System	Custom electrical cabinet by ALM Automation	set	1
CCD Vision System	ALM Automation Vision Integration Software (self-developed)	set	1
Top Camera	Hikvision industrial camera, 6MP / 20MP + industrial lens	set	1
Bottom Camera	Hikvision industrial camera, 6MP + industrial lens	set	1
Pneumatic Components	Airtac	set	1
Industrial PC	Intel i5 (4th Gen), Model: JLF-IPC-5402H-8G	set	1

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ALM-2500 Dual-Nozzle Dual-Feeder Vision Labeler (Open Type)

☆ Application Range
Suitable for a wide range of products requiring adhesive backing, including:
· 3C products
· Toys
· Home & gift packaging
· And other items that need precise adhesive placement

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☆ Function Overview

· Feeder System: The automatic feeder peels labels onto a release plate, preparing them for pickup.

· 4-Axis Robotic Arm: Automatically picks and places adhesive sheets with high stability.

· Vision Positioning:

· Bottom Camera: Detects real-time coordinates of the adhesive sheet.

· Top Camera: Identifies the target product's position.

· Intelligent Alignment Algorithm: Calculates placement coordinates automatically to ensure accurate bonding.

Performance & Specs

· Placement Accuracy: Up to ±0.05 mm

· Bonding Yield (Success Rate): ≥95%

· Final Product Qualification Rate: ≥99.5%

· Process Scrap Rate: ≤1%

· Productivity: 1,800–2,400 pcs/hour

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★ Main Configuration List (Technical Specifications)

Item	Specification / Brand / Model	Unit	Qty
Machine Dimensions	800 × 800 × 1700 mm	pc	1
Machine Weight	350 kg	pc	1
Power Consumption	1200 W	pc	1
Air Pressure Requirement	0.4–0.6 MPa	set	1
XY Linear Module	Hiwin / TBI Screw & Guide Rail	set	1
R-Axis Motor	42 Hollow Shaft Stepper Motor	pc	1
Servo Motor	Inovance / Leadshine 400W Servo	pc	1
Z-Axis Motor	Leadshine 57 Closed-loop Stepper	set	1
Motion Control Card	Leadshine + In-house Developed	set	1
Automatic Label Feeder	NINGRUI (Custom Made)	set	2
Belt Conveyor System	Length 1500 mm	set	1
Electrical Control System	ALM Automation (Custom Integration)	set	1
CCD Vision System	ALM Automation Vision Integration Software (Self-developed)	set	1
Top Industrial Camera	Hikvision 6MP / 20MP + Lens	pc	1
Bottom Industrial Camera	Hikvision 6MP + Lens	pc	1
Pneumatic Components	Airtac	set	1
Industrial PC	i5-4th Gen JLF-IPC-5402H, 8GB RAM	pc	1

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ALM AUTOMATION

📌 ALM-3000 Tray-Feeder Vision Automatic Labeler

This machine is suitable for a wide range of products requiring adhesive backing, including:
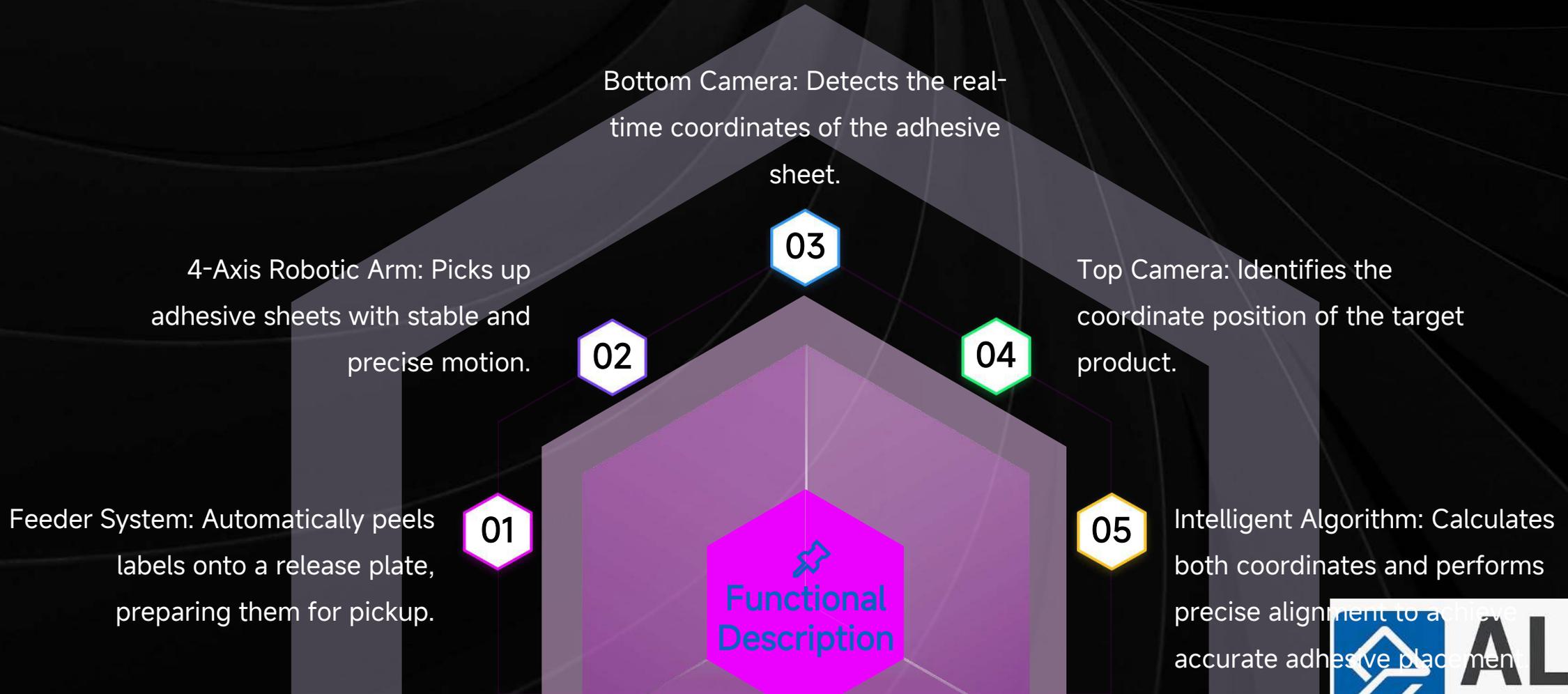
3C electronic products

Toys

Home and gift packaging

Any product that requires precise adhesive application

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☆ Function Overview

Bottom Camera: Detects the real-time coordinates of the adhesive sheet.

03

4-Axis Robotic Arm: Picks up adhesive sheets with stable and precise motion.

02

Top Camera: Identifies the coordinate position of the target product.

04

Feeder System: Automatically peels labels onto a release plate, preparing them for pickup.

01

05

Intelligent Algorithm: Calculates both coordinates and performs precise alignment to achieve accurate adhesive placement.

Functional Description

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☆ Main Configuration List (Technical Specifications)

01 ⚡Performance & Accuracy

02 Placement Accuracy: up to ±0.05 mm

03 Bonding Success Rate: ≥95%

04 Final Product Qualification Rate: ≥99.5%

05 Process Scrap Rate: ≤1%

06 Production Capacity: 1200–1500 pcs/hour

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ALM-3500 Real-Time Printing Vision Labeler

01. 📌 Application Scope

02. Suitable for a wide range of products that require adhesive backing, including:
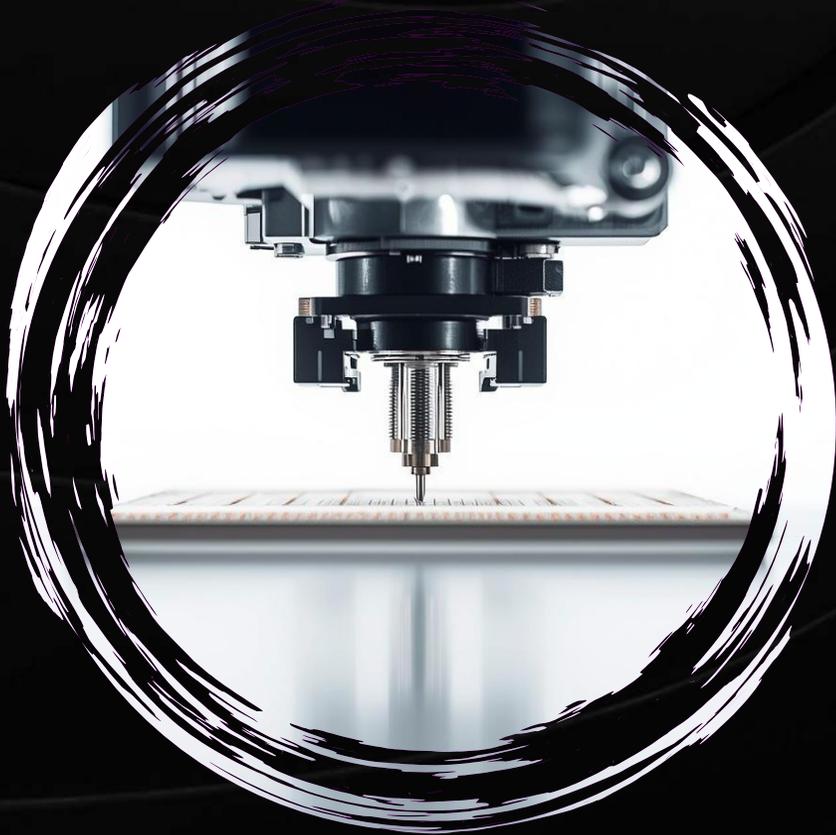
03. 3C electronic products

04. Toys

05. Home and gift packaging

06. Any other products requiring precise adhesive application

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ALM Automation Vision

Performance & Specifications

Top Camera: Recognizes the product's placement coordinates.

Intelligent Alignment Algorithm: Calculates positional offsets and performs precise bonding automatically.

📌Performance & Specifications

Placement Accuracy: Up to ±0.05 mm

Bonding Success Rate: ≥95%

Product Qualification Rate: ≥99.5%

Process Scrap Rate: ≤1%

Production Capacity: 1500–2000 pcs/hour

Real-time Printing Feeder: Prints labels on demand, ensuring each label is unique and traceable.

4-Axis Robotic Arm: Automatically picks up adhesive sheets with stable motion control.

Vision Positioning System:

Bottom Camera: Detects the real-time coordinates of the adhesive sheet.

ALL-IN-ONE TABLE

📌Complete Equipment Configuration Table (One Table)

Item	Specification / Brand / Model	Unit	Qty
Machine Dimensions	800 × 800 × 1700 mm (Custom Made)	pc	1
Machine Weight	380 kg	pc	1
Power Consumption	1500 W	pc	1
Air Pressure Requirement	0.4–0.6 MPa	pc	1
XY Linear Module	Hiwin / TBI Screw & Guide Rail	set	2
R-Axis Motor	42 Hollow Shaft Stepper Motor	set	1
Servo Motor	Inovance / Leadshine 400W	set	2
Stepper Servo Motor (Closed-loop)	Leadshine 57 Closed-loop Stepper	set	1
Motion Control Card	Leadshine + ALM Automation Vision (Self-developed)	set	2
Real-time Printer	Zebra ZT610	set	1
Belt Conveyor System	Length 1500 mm	set	1
Electrical Control System	ALM Automation Vision (Custom Integration)	set	1
CCD Vision System	ALM Automation Vision Vision Integration Software (Self-developed)	set	1
Top Industrial Camera	Hikvision 6MP / 20MP + Lens	pc	1
Bottom Industrial Camera	Hikvision 6MP + Lens	pc	1
Pneumatic Components	Airtac	set	1
Industrial PC	i5 4th Gen JLF-IPC-5402H, 8GB RAM	set	1

ALM AUTOMATION

ALM-4000 Spider-Robot Automatic Tray Handling System

It delivers high production efficiency with stable operating speed, eliminating the uncontrollable factors of traditional manual handling.

By ensuring consistent accuracy and smooth motion control, the system significantly improves product quality and overall manufacturing productivity.

Equipment Introduction

The Spider-Arm Automatic Pick & Place System is an integrated automation solution that combines fixture loading, part picking, part placing, and fixture unloading in one machine.

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Functional Description

The system uses a flexible feeder to vibrate and supply bulk components. CCD vision captures each part and provides precise coordinate data. A robot/module/spider-arm mechanism performs high-speed picking for processes such as assembly, tray loading, and taping.
Positioning accuracy can reach ±0.05 mm.

Parameter	Specification
Name	(Enter device name)
Module Stroke	400 mm (optional)
Number of Axes	3 axes
Axis Transmission	Servo motor + gearbox + linear guide
Axis Load	3–5 kg
Motion Speed	500 mm/s
Repeatability	±0.05 mm
Programmer	Handheld LCD screen
Control Method	PLC + touchscreen (fixed trajectory)
Motion Mode	Fixed trajectory
Cycle Time / Efficiency	1.5 s/pcs
Operating Temperature & Humidity	5–40 ℃ / 20–90% RH (non-condensing)
Air Source	0.5–0.7 Mpa
Input Power	AC 220V 50/60Hz
Dimensions (L×W×H)	1000 × 900 × 1900 mm
Weight	600 kg
Brand / Model	ALM Automation Vision

ALM Automation

Let's Connect

ALM Automation Vision

Thank you for reviewing our product portfolio. At SMTPack LAB Automation, we are committed to providing world-class SMT end-of-line solutions that enhance efficiency, precision, and reliability for your production lines.

We welcome inquiries, technical discussions, and partnership opportunities. Our team is ready to support you with customized automation solutions, professional guidance, and responsive service.

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We look forward to connecting with you and exploring smart automation solutions together.