

A red and white JAKA collaborative robot arm is shown in a factory setting. The arm is positioned diagonally across the frame, with its end effector pointing towards the top right. The background is a blurred industrial environment with various mechanical components and wiring. A red semi-transparent banner is overlaid on the left side of the image, containing the JAKA logo and tagline.

JAKA

High-Performance Collaborative
Robots for Affordable Automation



2014

- JAKA Robotics is founded as a spin-off of the Robotics Institute of Shanghai Jiao Tong University, established in 1979.

2016

- JAKA establishes a manufacturing base in Changzhou and an R&D centre in Shanghai.
- Recognized as a National High-Tech Enterprise by China's Ministry of Science and Technology.
- Series A funding completed.

2017

- Launch of JAKA Zu collaborative robots.

2018

- Recognized in automotive, 3C, and general industries servicing over 1,500 customers.
- JAKA+ cobots ecosystem platform established.
- Series A+ funding completed.

2019

- JAKA becomes a global company with over 200 international customers.
- JAKA establishes strategic partnerships with leading automotive and electronics companies.
- Recognized as a "Technology Giant" by the Science and Technology Commission of Shanghai Municipality.
- JAKA opens its Shenzhen office.
- Series B funding completed.

2020

- JAKA opens its R&D centre in Japan.
- Series C funding completed.

2022

- Global expansion begins with investment in a sales team for international markets.
- JAKA opens its European headquarters in Germany.

JAKA

Product Matrix



Ease of Use



Safety



Reliability



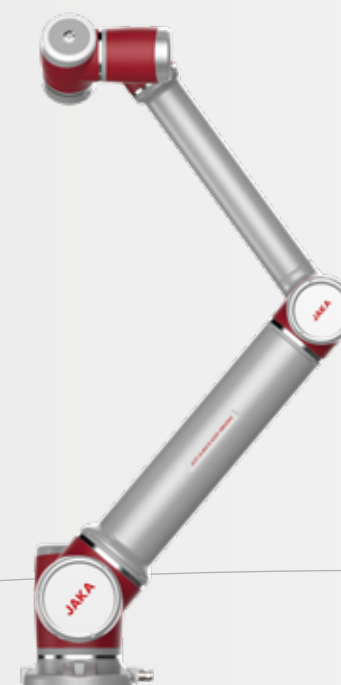
Compatibility

Flexible • Intelligent

Adapting to various application scenarios
to meet the needs of all industries.



JAKA S series



JAKA Pro series



JAKA Zu series



JAKA MiniCobo



JAKA Lens 2D



JAKA Vision Protection System



No Teach Pendant

Operating JAKA collaborative robots does not require a traditional teach pendant. It can be easily carried out via a tablet, smartphone, or PC, offering great flexibility.



Wireless Connection

With wireless connectivity, communicating with and assigning tasks to a cobot is effortless. No more wires! Enjoy a cleaner, safer workspace with JAKA cobots.



Safe Human-robot Collaboration

JAKA cobots are designed for safe interactions with humans – no safety fence required – thanks to collision detection, enabled by a built-in torque feedback module. Users can adjust flexibility, so that even the lightest bump will cause the cobot to stop, preventing harm.



Graphic Programming

Program effortlessly on any graphical device – PC, tablet, or phone. The intuitive software requires no prior programming experience, allowing anyone to easily set and adjust positions and tasks.



Drag Teaching

Users and integrators can deploy a cobot in minutes using drag teaching. Simply move the cobot to any position, and it will instantly memorize it.



Plug-and-play

A few minutes is all it takes to install JAKA cobots. Whether on a horizontal or a vertical surface, they are easy to mount and ready to go. Flexible and lightweight, the cobots are compatible with a wide range of grippers and end effectors. This plug-and-play design allows users to quickly deploy and re-deploy in any production environment.


JAKA Zu Cobots


Simplified

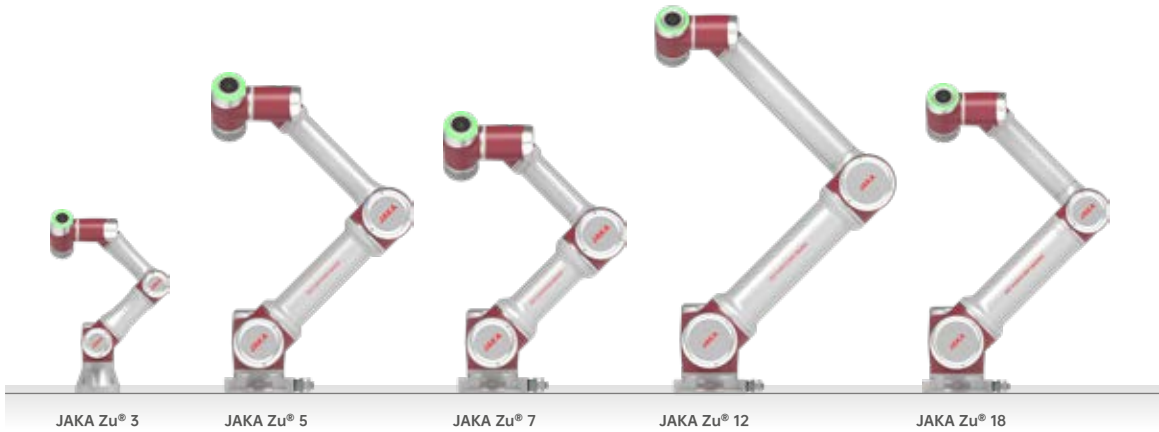
Plug and play setup, convenient deployment, flexible production.


Intelligent

Flexible, intelligent, easy to operate, and efficient in collaboration


Specialized


Built for reliable performance in various high-precision collaborative tasks.



JAKA S Cobots


Highly Sensitive

Optimized drag teaching for superior precision and control.


User-Friendly

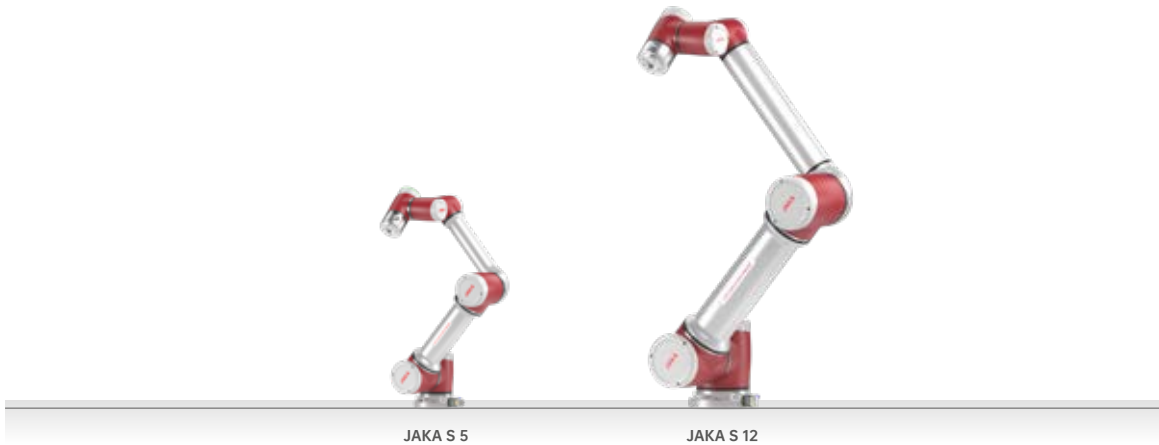
Simple app setup with real-time force value display.


Practical

Multiple force control modes with consistent force accuracy.


Safe

Full-arm collision detection self-learning monitoring.



JAKA Pro Cobots


Exceptional Durability

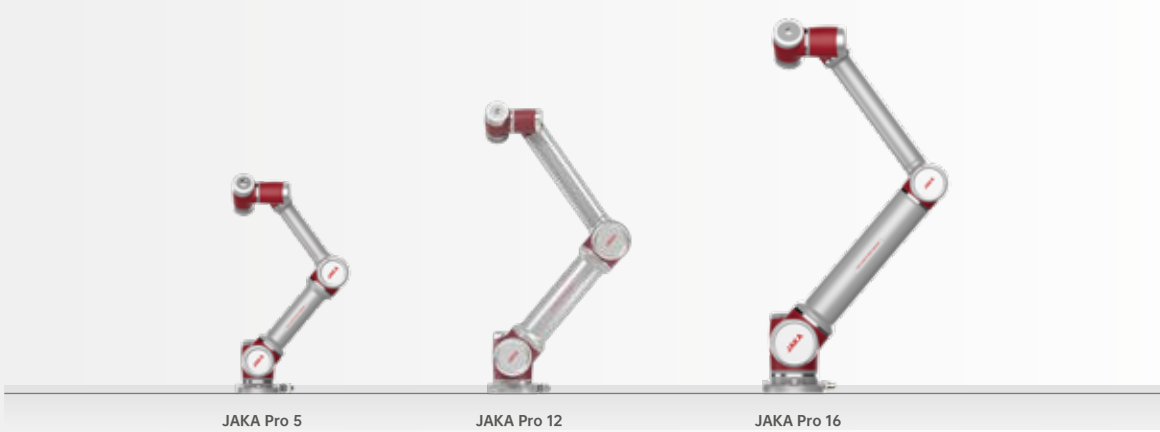
Industry's highest IP68 protection level - fully resistant to oil and dust.


Reduced Maintenance

High-precision, low-maintenance design for worry-free production.


Enhanced Efficiency

Fast, intelligent operation with seamless and safe integration.



JAKA MiniCobo


Business-Ready

Compact, low-noise design. Ideal for hospitality, education, retail, and services.


Lightweight

Weighing under 10kg, it offers exceptional portability and convenience.


Cost-Effective

Achieve high-quality results with a low initial investment.



JAKA Zu

Ease of Integration

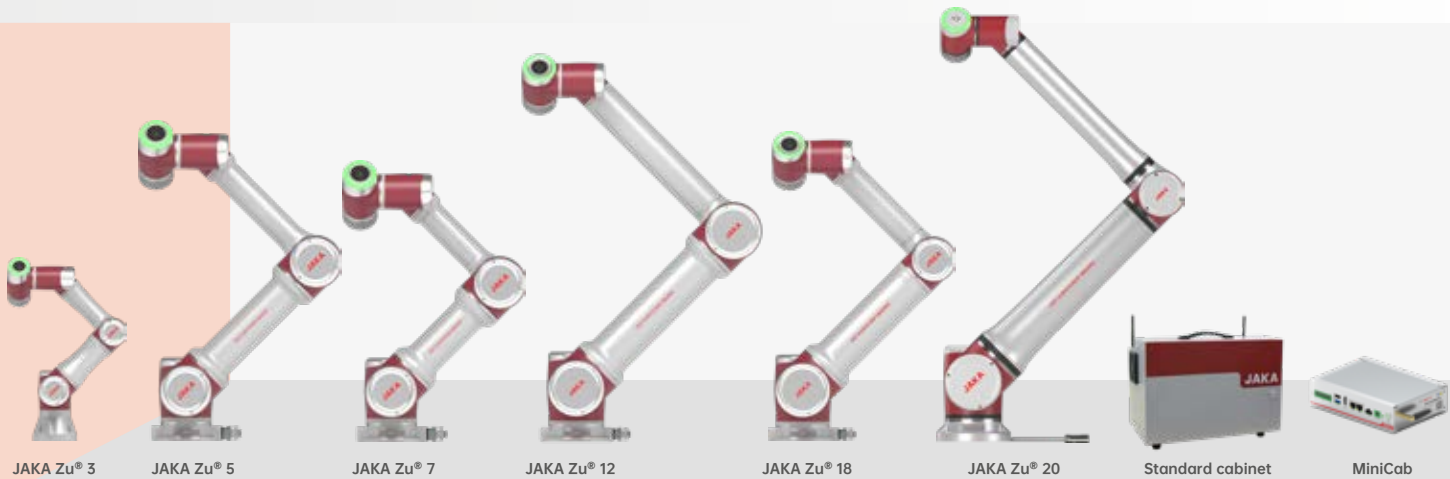
Plug-and-play,
easy deployment,
with a compact
footprint.

Ease of Use

Built-in torque feedback,
drag teaching, and
graphic programming for
easy use.

High Precision

Excellent repeatability,
accuracy, and an
MTBF of 80,000 hours.



Product features	Product parameters		JAKA Zu® 3		JAKA Zu® 5		JAKA Zu® 7		JAKA Zu® 12		JAKA Zu® 18		JAKA Zu® 20	
	Maximum payload		3kg		5kg		7kg		12kg		18kg		20kg	
	Weight		12kg		23kg		22kg		41kg		35kg		68kg	
	Reach		626mm		954mm		819mm		1327mm		1073mm		1780mm	
	Accuracy		±0.02mm		±0.02mm		±0.02mm		±0.03mm		±0.03mm		±0.05mm	
	Number of axis		6		6		6		6		6		6	
	Programming		Drag teaching and graphic programming		Drag teaching and graphic programming		Drag teaching and graphic programming		Drag teaching and graphic programming		Drag teaching and graphic programming		Drag teaching and graphic programming	
	Teach pendant		PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)	
Movement	Robot joint	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	
	Joint 1	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	120°/s	±360°	120°/s	±360°	120°/s	
	Joint 2	-85°, +265°	180°/s	-85°, +265°	180°/s	-85°, +265°	180°/s	-85°, +265°	120°/s	-85°, +265°	120°/s	-85°, +265°	120°/s	
	Joint 3	±175°	180°/s	±175°	180°/s	±175°	180°/s	±175°	120°/s	±175°	180°/s	±175°	120°/s	
	Joint 4	-85°, +265°	220°/s	-85°, +265°	180°/s	-85°, +265°	180°/s	-85°, +265°	180°/s	-85°, +265°	180°/s	-85°, +265°	220°/s	
	Joint 5	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	220°/s	
	Joint 6	±360°	220°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	220°/s	
	Maximum linear speed	/	1.5m/s	/	3m/s	/	2.5m/s	/	3m/s	/	3.5m/s	/	1.5m/s	
Specifications	Nominal power consumption	150W		350W		350W		500W		600W		750W		
	IP classification	IP54		IP54		IP54		IP54		IP54		IP65		
	Tool I/O ports	Digital input 2		Digital input 2		Digital input 2		Digital input 2		Digital input 2		Digital input 2		
		Digital output 2		Digital output 2		Digital output 2		Digital output 2		Digital output 2		Digital output 2		
		Analog input 1		Analog input 1		Analog input 1		Analog input 1		Analog input 1		Analog input 1		
	Base diameter	129 mm		158 mm		158 mm		188 mm		188 mm		246 mm		
Electrical cabinet	IP classification	IP44		IP44		IP44		IP44		IP44		IP44		
	I/O ports	16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		
	Communication	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		
	Power	100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		
	Size	410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		
	Weight	13.5 kg		15.4 kg		15.4 kg		18 kg		18 kg		18 kg		

JAKA S



Improved Durability

IP65 rating for superior protection



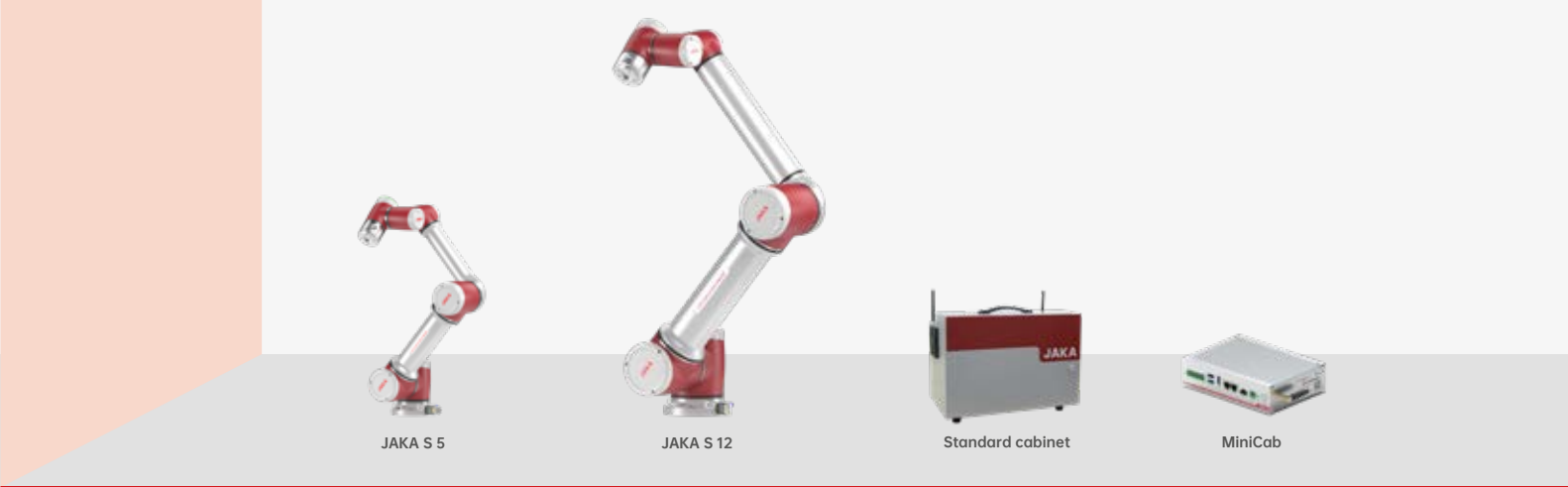
Precision Handling

Integrated force control for effortless operation



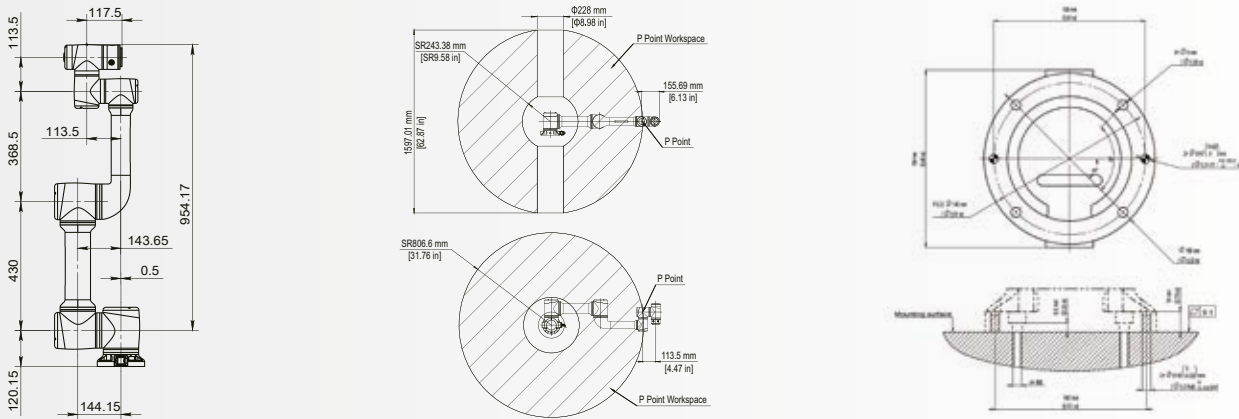
Easy Deployment

Instant access to force control at a glance.

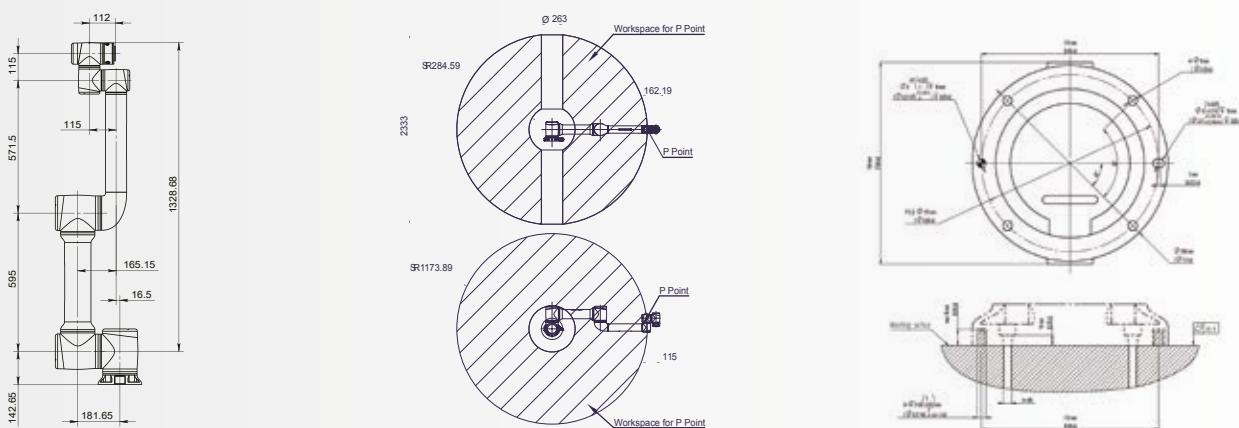


Product features	Product parameters	JAKA S 5		JAKA S 12	
	Maximum payload	5 kg		12 kg	
	Reach	954 mm		1327 mm	
	Number of axis	6		6	
	Nominal power consumption	350w		500w	
	Operational temperature	-10~50°C			
Force/torque sensor performance	Force/torque sensor	Force, x-y-z	Torque, x-y-z	Force, x-y-z	Torque, x-y-z
	Measurement range	200N	24Nm	400N	48Nm
	Max force/torque limit	3000N	300Nm	3000N	300Nm
	Accuracy of maximum range	1% F.S.	1% F.S.	1% F.S.	1% F.S.
	Force/torque resolution	0.1N	0.1Nm	0.1N	0.1Nm
Movement	Typical TCP speed	1 m/s	/	1 m/s	/
	Accuracy	±0.02 mm	/	±0.03 mm	/
	Robot Joint	Range of action	Joint speed	Range of action	Joint speed
	Joint 1	±360°	180°/s	±360°	120°/s
	Joint 2	-85°~+265°	180°/s	-85°~+265°	120°/s
	Joint 3	±175°	180°/s	±175°	120°/s
	Joint 4	-85°~+265°	180°/s	-85°~+265°	180°/s
	Joint 5	±360°	180°/s	±360°	180°/s
	Joint 6	±360°	180°/s	±360°	180°/s
Specifications	IP classification	IP 65		IP 65	
	Robot mounting angle	Any orientation		Any orientation	
	Base diameter	158 mm		188 mm	
	Materials	Aluminium, PC		Aluminium, PC	
	Robot connection cable length	6 m		6 m	
	Weight	23 kg		41 kg	
	Humidity	10~90% RH			

JAKA S 5 Drawings



JAKA S 12 Drawings



JAKA Pro



Robust Durability

IP68 protection for maximum durability — dust, oil, and water-resistant.



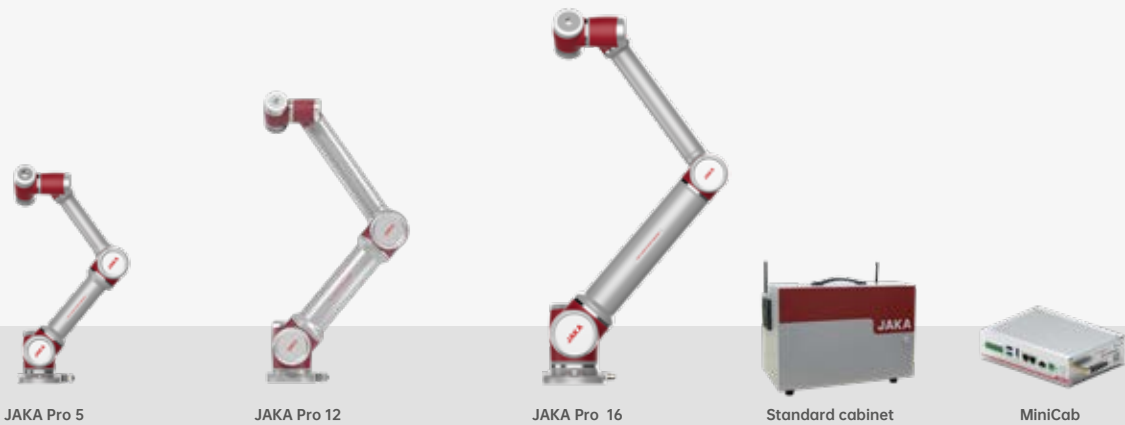
Steady Performance

±0.02 mm accuracy for reliable, 24/7 unsupervised operation.



Quick Deployment

Fast to deploy, easy to integrate and straightforward to reprogram.




Product features	Product parameters	JAKA Pro 5		JAKA Pro 12		JAKA Pro 16	
	Maximum payload	5kg		12kg		6kg	
	Weight	23.5kg		41kg		74kg	
	Reach	954mm		1327mm		1713mm	
	Accuracy	±0.02mm		±0.02mm		±0.02mm	
	Number of axis	6		6		6	
	Programming	Drag teaching and graphic programming		Drag teaching and graphic programming		Drag teaching and graphic programming	
	Teach pendant	PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)		PC, mobile (PAD/mobile)	
Movement	Robot joint	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed
	Joint 1	±360°	180°/s	±360°	120°/s	±360°	120°/s
	Joint 2	-85°, +265°	180°/s	-85°, +265°	120°/s	-85°, +265°	180°/s
	Joint 3	±175°	180°/s	±175°	180°/s	±175°	180°/s
	Joint 4	-85°, +265°	180°/s	-85°, +265°	180°/s	-85°, +265°	180°/s
	Joint 5	±360°	180°/s	±360°	180°/s	±360°	180°/s
	Joint 6	±360°	180°/s	±360°	180°/s	±360°	180°/s
	Maximum linear speed	/	3m/s	/	3m/s	/	3.9m/s
Specifications	Nominal power consumption	350W		500W		350W	
	IP classification	IP68		IP68		IP68	
	Tool end I/O interface	Digital input 2		Digital input 2		Digital input 2	
		Digital output 2		Digital output 2		Digital output 2	
		Analog input 1		Analog input 1		Analog input 1	
	Base diameter	158 mm		188 mm		246 mm	
Electrical cabinet	IP classification	IP44		IP44		IP44	
	I/O ports	16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs		16 digital inputs, 16 digital outputs, 2 analog inputs or outputs	
	Communication	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP		TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP	
	Power	100-240VAC, 50-60Hz		100-240VAC, 50-60Hz		100-240VAC, 50-60Hz	
	Size	410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)		410×307×235 (mm) (W×H×D)	
	Weight	15.4 kg		18 kg		18 kg	

JAKA MiniCobo


Product description ↗

The JAKA MiniCobo is a lightweight and compact robot, easy to set up in many different work environments. It offers strong performance and flexibility with simple tools for customization.


With its small size, quiet operation, and sleek look, the JAKA MiniCobo is perfect for industries like education, retail, and services. Its costeffective design makes it an ideal entry point for businesses looking to start their automation journey.




Ideal for B2C



Cost-effective




Lightweight




Weight

9.4kg




Payload

1.0kg



Reach

580mm



Accuracy

±0.1mm



Application scenarios ↗



Product features	Product parameters	MiniCobo	
	Maximum payload	1kg	
	Weight (W cable)	9.4kg	
	Reach	580mm	
	Accuracy	±0.1mm	
	Number of axis	6 axes	
	Programming	Graphical programming, free-drive	
	Teach pendant	MT PAD/Mobile APP	
	Collaborative operation	Accordance with GB 11291.1-2011	
Movement	Robot joint	Working range	Maximum speed
	Joint 1	±360°	180°/s
	Joint 2	±120°	180°/s
	Joint 3	±150°	180°/s
	Joint 4	±360°	180°/s
	Joint 5	±120°	180°/s
	Joint 6	±360°	180°/s
	Maximum linear speed	/	1.5m/s
Specifications	Nominal power consumption	150W	
	Operational temperature	0-50°C	
	IP Specification	IP40	
	Robot mounting angle	Any orientation	
	Tool end I/O interface	Digital input 2	
		Digital output 2	
		Analog input 1	
	Tool I/O power	24DC	
	Tool I/O size	M8	
	Materials	Aluminum, PC	
	Base diameter	124mm	
	Cable length	6m	
Electrical cabinet	Device	20-60VDC	
	Iout	≤40A	
	Size	180×128×47(mm)(L×W×H)	
	IP Level	IP20	
	I/O	7 Digital input: I/O configurable	
	I/O Power	24VDC	
	Fixed Form	Panel/Guide Rail	
	Interface	TCP/IP, Modbus TCP, Modbus RTU , Profinet , Ethernet/IP	
	Weight	1.1kg	
	Material	AL, Steel	



JAKA Lens 2D



Flexible and Convenient

Vision system for easy adaptation to different scenarios.



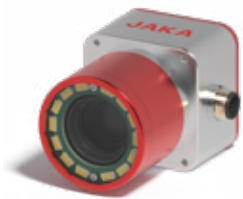
Customizable

Drag-and-drop programming with flexible function combinations for tailored inspections.



Easy Integration

Seamless software and hardware integration for quick and easy deployment.



Product description

The JAKA Lens 2D is a high-resolution camera with adjustable lighting designed for clear 2D image capture. It allows real-time imaging with the flexibility to control the light source.

With features like automatic target recognition, visual positioning, and easy calibration, the system is simple to set up and operate for various image processing needs..

Lens 2D parameter	Lens 2D CGC500-F08	Lens 2D CGC500-F16
Resolution	2592×1944	2592×1944
Max frame rate	24fps	24fps
Data interface	GigE	GigE
Color mode	Black and white / color	Black and white / color
Lens focal length	8mm	16mm



JAKA Lens VPS



High reliability

Isolate external factors
The protection effect is stable and reliable



High performance

High speed combined with high storage capacity
Embedded acceleration engine configuration



High convenience

No complicated software installation required
Browse the web for easy access



Product description

The JAKA virtual protection system uses an industrial wide-angle camera and a vision system from JAKA and is directly connected to the cobot controller. The camera is placed above the robot's working area to monitor the working scene. If an external object (a person or a device) enters the monitoring area, the camera system detects the interference and sends instructions to the robot to take appropriate safety measures to ensure the safety of man and machine.

Lens 2D parameter	JAKA Lens Virtual Protection System
Resolution	820 w Pixel
Response time	200 ms
Installation height	2.5 m (suggested)GigE
Scope of protection area	5 m*2.6 m (adjustable)
Installation mode	Directly above, side (any angle)



JAKA Cobot Cab



Seamless Integration

Meets the operational needs of full-load models.



Adaptable

Equipped with extensive I/O's and industrial communication interfaces



Smart Connectivity

Integrated industrial multi-protocol control module



Product description

The JAKA Standard Cabinet is a durable robot controller designed for seamless operation and communication with JAKA collaborative robots. It features an integrated wireless network module for mobile deployment and connectivity. Compatible with all JAKA cobots, it supports multiple device interfaces and industrial protocols, enabling integration with various equipment, including 3D vision systems, photoelectric sensors, conveyor belts, and laser scanners—offering a flexible and versatile automation solution.

Parameters	JAKA Standard Cabinet
IP rating	IP44
IO Interfaces	16 digital inputs, 16 digital outputs, 2 analog inputs or outputs
Power supply (internal)	24V
Communication protocols	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP
Power supply	100-240VAC, 50-60Hz
Cabinet size	410×307×235(mm) (W×H×D)
Weight	13 kg
Material	Plastic sprayed carbon steel plate



JAKA MiniCab



Space-Saving Design

Compact mini control cabinet



Wide Compatibility

Works with most JAKA cobots



Portable

Suitable for mobile use



Product description

The industry's smallest robot controller, weighing only 1.1 kg, supports a wide DC input power range, is compatible with various models and power loads, features an integrated wireless network module, and is ideal for mobile platforms like AGVs or industrial electrical cabinets.

MiniCab parameter	JAKA MiniCab / Mini Cabinet
Input power / current	DC30-60V / ≤40A
Controller size	180×28×47(mm)(L×W×H)
IP rating	IP20
IO Ports	7-way port; Input and output configurable
Power supply (internal)	DC24V
Installation method	Panel / guide rail
Communication standard	TCP/IP, Modbus TCP, Modbus RTU, Profinet, Ethernet/IP
Weight	About 1.7 kg (including accessories)
Material	Aluminum alloy, steel

Flexible Programming of JAKA Robots

Whether you're a seasoned robotics engineer or new to automation, JAKA makes programming effortless and efficient. With numerous versatile programming options – ranging from intuitive drag-and-drop interfaces to advanced coding flexibility – we cater to diverse industries, applications, and skill levels. No matter your expertise, JAKA ensures a seamless programming experience, allowing you to focus on optimizing productivity.



JAKA Zu® App

The JAKA Zu App is our user-friendly programming platform based on the widely used programming language Scratch. Designed for simplicity, it allows users to program JAKA cobots through an intuitive drag-and-drop interface on tablets or smartphones.



- **Ideal For:** Beginners and operators with minimal programming experience.
- **Key Features:** Visual programming, real-time control, large variety of drag-and-drop commands.



Drag & Teach

With JAKA's direct teaching feature, users can simply guide the robot arm through desired movements to program tasks. This intuitive method reduces the learning curve and accelerates setup time.

- **Ideal For:** Quick setups and repetitive tasks.
- **Key Features:** Easy task recording, no prior programming knowledge required.



SRCI (Standard Robot Communication Interface)

SRCI enables seamless integration of JAKA cobots into PLC automation using standard Profinet protocols. It is designed for industries that require robust and reliable connectivity.

- **Ideal For:** Technicians with prior experience on SIMATIC hardware and software.
- **Key Features:** The use of SIMATIC Robot Integrator via TIA Portal.



TCP-IP

JAKA supports an external control protocol based on TCP/IP, offering a comprehensive set of interfaces that enable customers to control the robot and retrieve information.

- **Ideal For:** Programming environments with TCP server structure.
- **Key Features:** TCP server on the robot controller to receive specific commands and provide feedback status data.



JAKA SDK (Software Development Kit)

JAKA SDK is a comprehensive toolkit designed for developers and skilled system integrators to efficiently build applications for collaborative robots.

- **Ideal For:** Advanced users, software developers, and integrators.
- **Key Features:** The SDK communicates with the robot over TCP/IP and is available as a library for C/C++, C#, and Python.



Offline Programming

The JAKA Virtual Machine, along with third-party software like RoboDK, offers an efficient solution for programming without a physical robot: create, simulate, and test programs in a virtual environment before deployment.

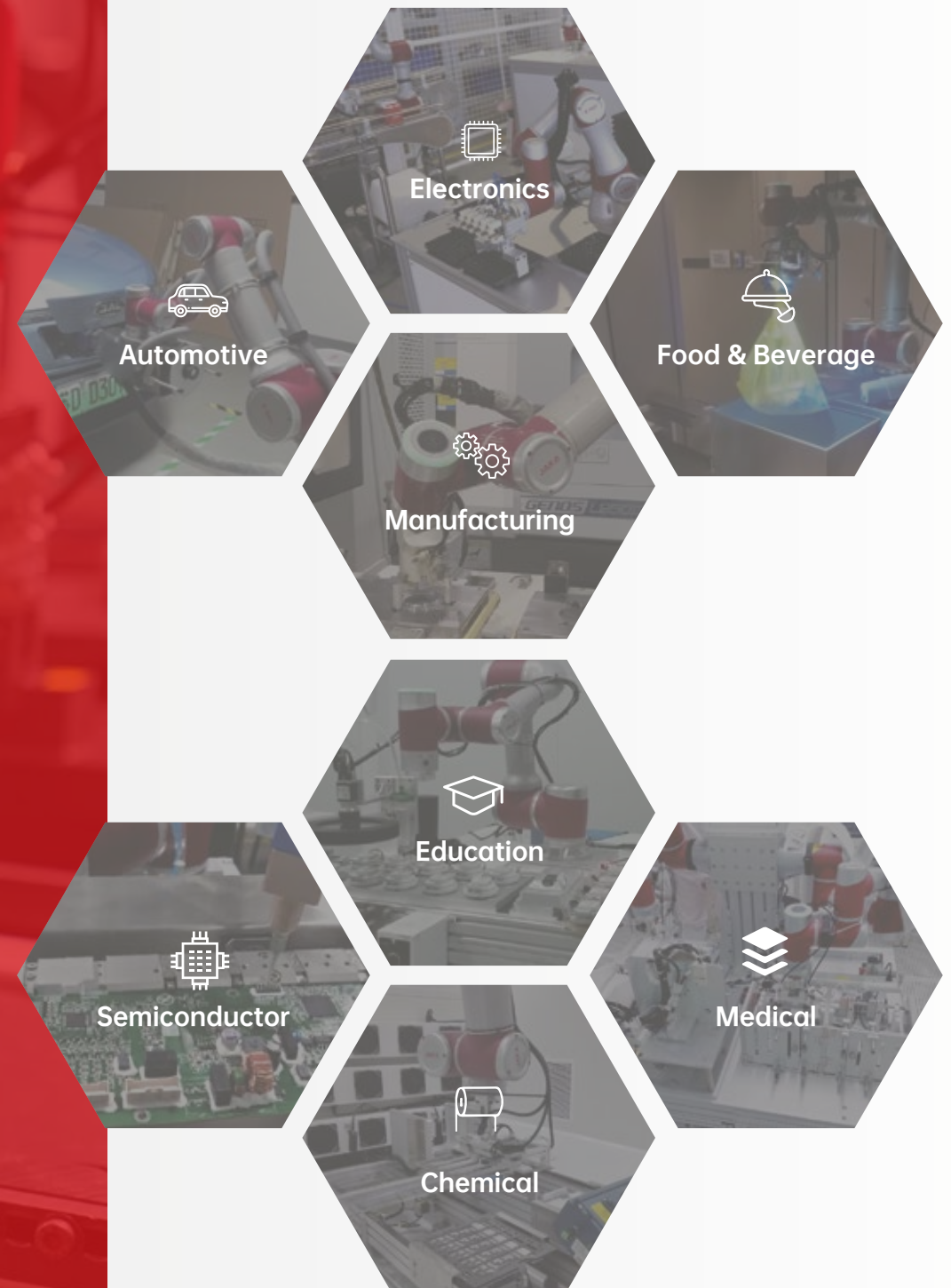
- **Ideal For:** Environments where downtime must be minimized, or where a physical connection to the robot is unavailable, such as training and education settings.
- **Key Features:** Connect the JAKA Zu® App to the virtual machine using an IP address. The virtual machine can also be operated through TCP/IP and the JAKA SDK, with these functions also available via third-party software.

JAKA

Key Industries



Automotive
Electronics
Semiconductor
Manufacturing
Medical
Food & Beverage
Chemical
Renewable Energy
Education
Agriculture



Electronics / Semiconductor Industry



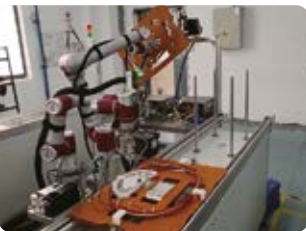
CNC Machine tending with AGV/Robot



Power module coating



Scanning and inspection of battery packs



Soldering



Quality inspection of PCB boards



Visual inspection on smartphones



Buzzer detection



Handling operations during product assembly



Glue residue removal in earbuds



Quality inspection for smartwatches



Quality inspection for semiconductor parts



Gluing operations on PCB boards



Laser etching for electronics



Screwing operations on lamp assembly



Assembly with dual arms



Blanking operations on PCBs



Sandblast cleaning operations



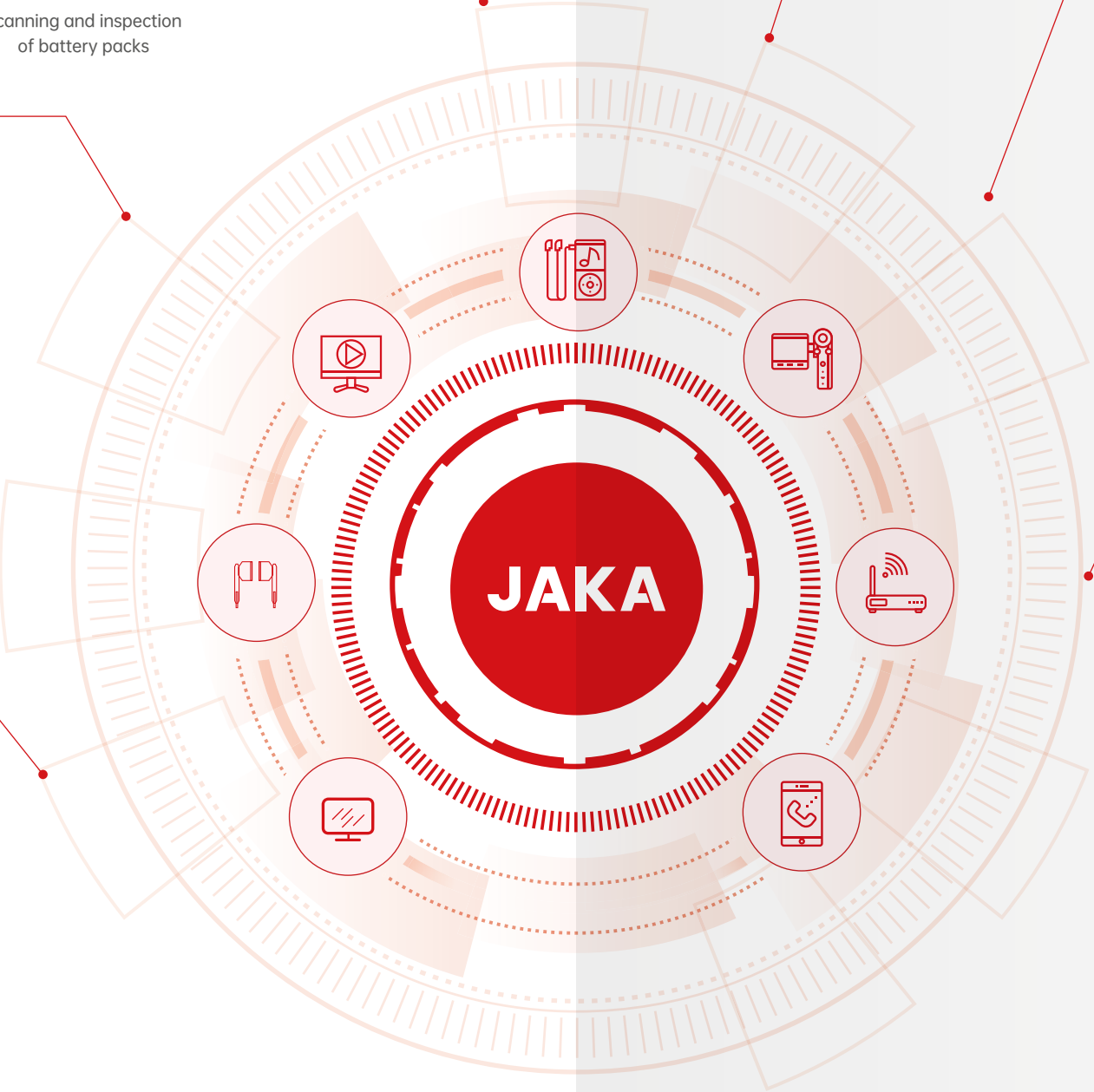
Protective film removal



Gluing operations on PCs

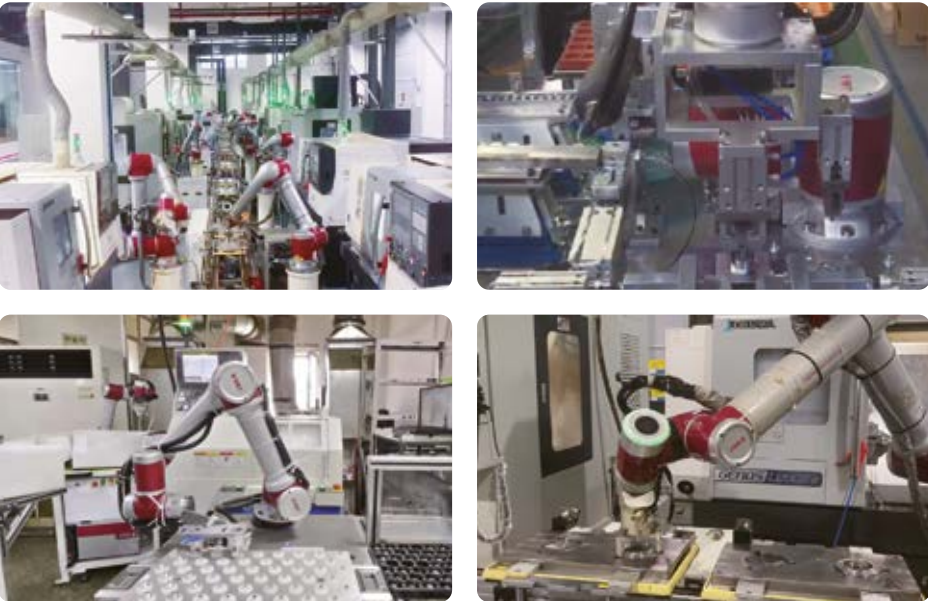


Handling operation on PCB boards

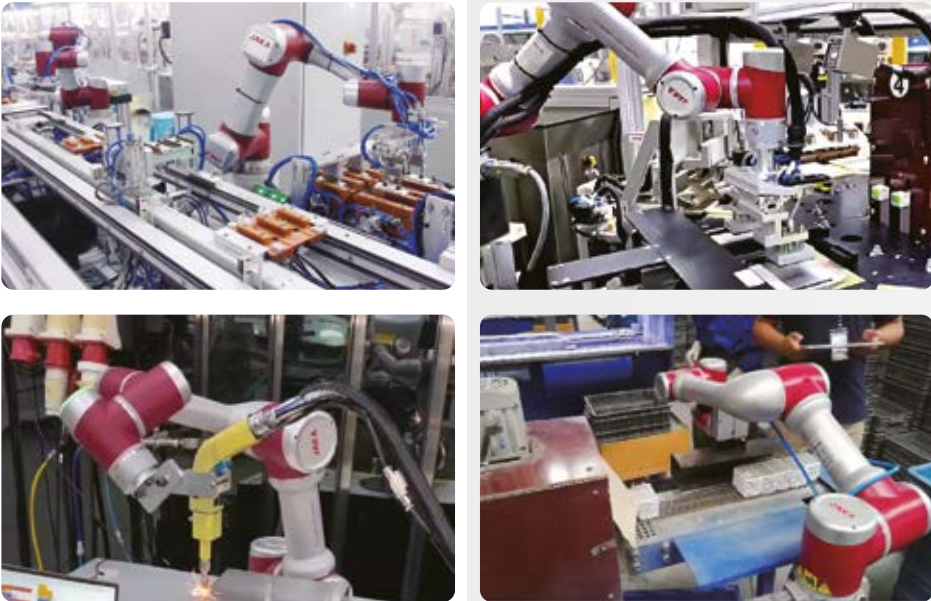


Other Industrial and Commercial Sectors

⚙️ Manufacturing



🌱 Renewable Energy



🔌 Electrical Appliances



🍷 Food & Beverage



🏥 Medical



🍹 Hospitality





JAKA

Customer focused service approach



24/7 online support



Professional technical support



Digital solutions



Full service tracking



High-level training in the industry

jakarobotics.com

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