

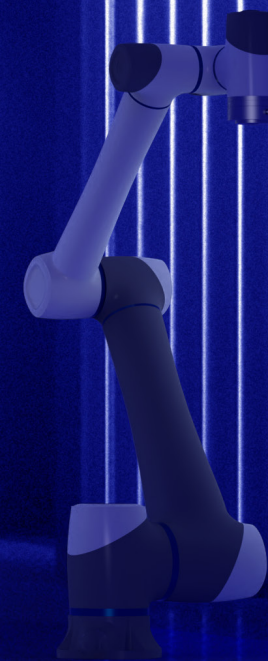
The background is a dark, textured surface with a complex pattern of glowing blue and white lines resembling a circuit board or data network. A bright, vertical beam of light emanates from the top center, creating a focal point. Four industrial robots are positioned on a dark, circular platform in the foreground. From left to right, they are: a smaller robot on a base, and three larger robots labeled 'DOBOT CR3', 'DOBOT CR5', 'DOBOT CR16', and 'DOBOT CR10'. The robots are white and grey, with blue accents. The overall aesthetic is high-tech and futuristic.

LPK
ROBOTICS

**LPK DoBot :
All-perceptive Intelligent
Industrial Robot
Solution Expert**

LPK
ROBOTICS

**Your Factory,
Our Robots.**



Safe, Flexible, and Self-learning Collaborative Robot Series

S A F E , F L E X I B L E , A N D S E L F - L E A R N I N G

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LPK DoBot CR series is a collaborative line of robots that DOBOT launched. CR series co-bots have payloads of 3kg, 5kg, 7kg, 10kg, 12kg, and 16kg. These cobots are safe to work alongside, cost-effective, and adaptable in a variety of scenarios. CR Cobots offer flexible deployments, hand-guided learning, collision monitoring, trajectory reproduction, and other functions, increasing its suitability for human-robot collaboration scenarios.

Easy to Use | Easy to Learn and Master | Easy to Control

- Graphical programming, intuitive and easy to understand, easy to start and ready to use
- Intelligent interactive terminal panel, hand-guided learning, and system joint debugging are done in a single hand
- Real-time controls on your mobile phone, PAD smart terminal app, low delay and strict disturbance immunity, and wireless interconnection are minimized

Safe | Safe Production | Worry-free Collaboration

- 0.01 s real-time dynamic monitoring, 15cm space pre-touch perception, and advanced perception for preventive measures
- Based on force sense, electromagnetism, vision, multiple active security protection, layers collaborate to achieve the safest environment
- Spatial perception and online planning are perfectly combined to actively select the best trajectory to bypass obstacles, and adapt to random strains intelligently and efficiently

Convenient | Flexible Deployment, One Step Ahead

- Fast setup requiring only 20 minutes to set up, 1 hour to initiate. It provides portable deployment in a time-saving and efficient manner
- Wide compatibility with mainstream end-effectors and accessories that meet the needs of flexible manufacturing multi-scenarios, and flexibly expand plug and play
- Intelligent adaptation to tailored needs, fast changeovers perfect for customized & flexible manufacturing

Economy | Smart Choice, Cooperation, and Mutual Benefit

- Smaller working space, less protection investment, safe and flexible in limited spaces
- 32,000 hours of service life, advanced energy-feeding technology, 100-watt energy consumption, durable and efficient long-term benefits

Flexible Deployment, One Step Ahead

LPK DoBot CR Collaborative Robot Series, simple design and wiring;
Fast setup requiring only 20 minutes, 1 hour to initiate
Flexible deployment, time-saving and efficient.



Wirelessly Interconnected Completely in Control

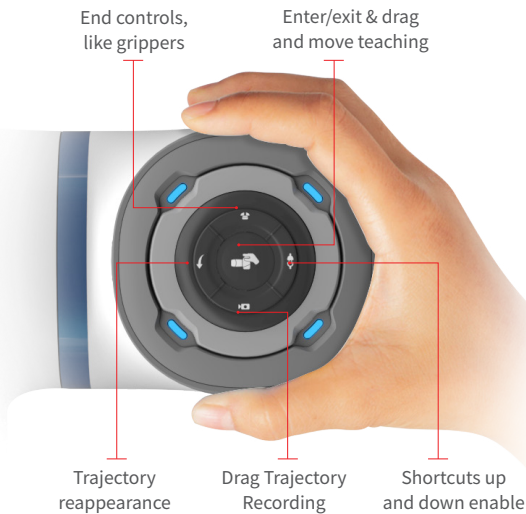
The CR series can be controlled through your mobile phone, PAD smart terminal app, low delay and strict disturbance immunity. Supports Android, iOS, Windows, and other platforms and with a high-performance WLAN card, the transmission velocity can reach up to 433Mbps, far greater than ordinary 150Mbps wireless WLAN cards.



Easy to master & Easy to control

The top of the robot sixth axis is equipped with our unique intelligent interactive panel with a proprietary lighting system, which can easily display the robot's status and quickly switch between enabling and disabling states.

With the push of a button, you can obtain drag and move teaching, recording, and reproducing trajectories, while controlling jaws, suction cups, or other custom fixtures and equipment. Users can easily control the system and make joint debugging using only one hand.



































Flexible Ecology Expansion

The main applications you can use here are loading and unloading, assembly, testing, handling, screwing, grinding, spraying, and others. To succeed in the aforementioned applications, it is often necessary to configure different ends to combine them together. The most common endpoints include fixtures, vision, force sensors, etc.

Featuring multiple I/O and communication interfaces allows the CR collaborative robot series to be expandable and compatible with many end-of-arm tools:

The plug-and-play approach for a plug-in is easy to match and quick to select, including application scenarios.

| | | | |
|---|--|--|---|
|  <div>Robotiq Gripper</div> |  <div>SCHUNK Gripper</div> |  <div>Onrobot Gripper</div> |  <div>DH-Robotics Gripper</div> |
|  <div>Rochu Gripper</div> |  <div>Robotiq Gripper</div> |  <div>Onrobot Gripper</div> |  <div>SRT Gripper</div> |
|  <div>Robotiq Sensor</div> |  <div>KUNWEITECH Sensor</div> |  <div>Link-touch Sensor</div> |  <div>ATI Sensor</div> |
|  <div>COGNEX Vision</div> |  <div>MICROSCAN Vision</div> |  <div>Hikvision Vision</div> |  <div>ALSONTECH Vision</div> |
|  <div>YOUIBOT AGV</div> |  <div>Standard Robots AGV</div> |  <div>SEER AGV</div> |  <div>AGILEX ROBOTICS AGV</div> |
|  <div>DynaBrade Orbital Sander</div> |  <div>Onrobot Screwdriver</div> |  <div>Robotiq Screwdriver</div> |  <div>Schmalz Vacuum Gripper</div> |
|  <div>STICKÔBOT INC ONESTICK</div> |  <div>3D Connexion SpaceMouse</div> |  <div>Zacobria Controller</div> |  <div>HUATU Teaching Pendant</div> |

| | | | | | |
|---|---|---|--|---|---|
|  <div>Auto Manufacturing</div> |  <div>3C</div> |  <div>Chemical</div> |  <div>Medical</div> |  <div>Semiconductors</div> |  <div>Retail</div> |
| Loading and Unloading Spraying Assembly Inspection Screwdriving Pick and Place | Loading and Unloading Welding Assembly Gluing Handling Palletizing | Loading and Unloading Handling Labeling Measuring Testing Tending | Extracting liquid Mixing liquid Moving liquid Cutting bone Biops Puncturing | Loading and Unloading Photoetching Cleaning Sculpting Subside Tending | Pick and Place Sorting Handling Packaging Making latte art Baking |



Further SDK Development

Provides a ton of application packages, including SDK development packages, helping you quickly implement industrial and commercial application scenarios.

Supplemented by the corresponding software API, DOBOT cobot constitutes an open platform where most system accessories are supported.

Plug and play function meets the needs of flexible manufacturing across multiple scenarios.





C



C++



C#



python



ROS



Matlab



LabView

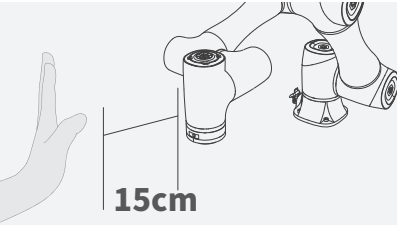


Android

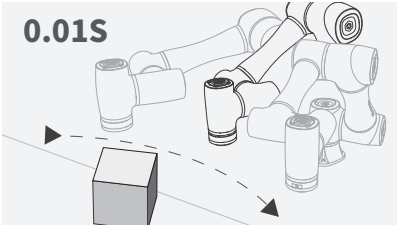


Collision-Free Collaboration

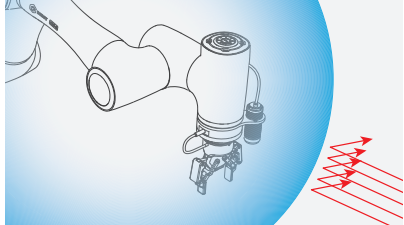
DoBot SafeSkin is a wearable silicone collision detection product specifically tailored for collaborative robots. With electromagnetic induction, a large coverage area, long perception distance, and fast response velocity, DOBOT SafeSkin can react quickly to avoid contact or injuries with electromagnetic objects. Unlike traditional collision detection solutions for collaborative robots, Dobot SafeSkin uses pre-collision and pre-perception technology to provide non-contact proximity perception and collision prevention for collaborative robots, ensuring high productivity and safety solutions for human-robot collaboration.



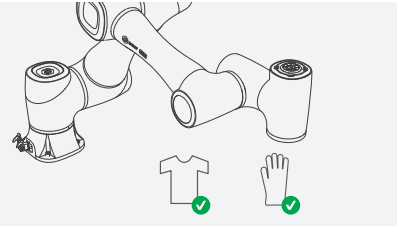
Long-distance spatial perception
15cm perception distance, effectively protects the operator from the robot arm impacts and injuries



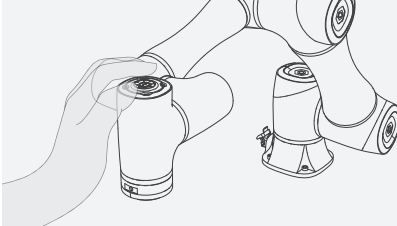
High sensitivity and rapid response
0.01ms response sensitivity, achieves higher sensitivity and responsiveness for collaborative human-machine security interactions



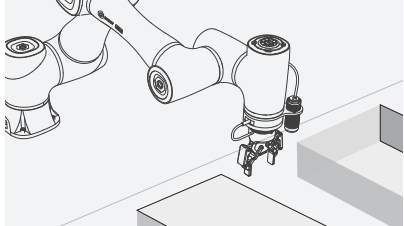
Stable anti-interference operations
Shielding technology allows you to resist interference from source signals at worksites and support a good environment for stable robot operations



Comprehensive safety guaranteed
The sensing ability is unaffected by fabric, plastic gloves, and other shelters and light conditions, creating comprehensive security



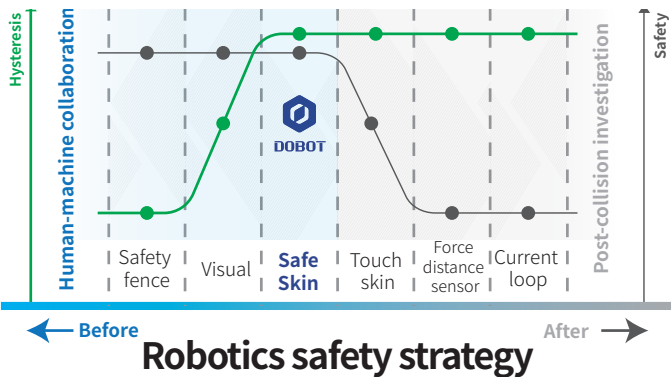
Quick installation
Dobot SafeSkin adopts a humanized design, making it easy to operate and be installed in the fastest way



Guaranteed robot performance
While in use, the SafeSkin will rarely cause performance losses for the robot, ensuring efficient production

Wearable silicone collision design

In the non-contact safety program, the industry's first silicone SafeSkin, compared to metal, plastic, and other materials, has higher collision cushioning, feels soft, and is maintainable and self-recoverable; it has a wearable integrated design, is quick to install and easy to start, simple to operate, and ready to use.



Non-contact and Safe Feature



Control Software for CR Cobot Series

DOBOT SCStudio

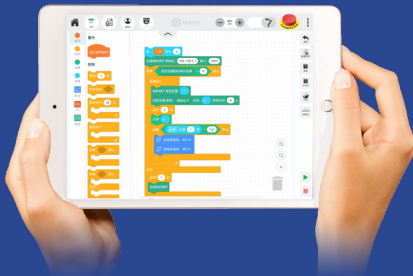
SCStudio, the Windows control software for CR cobots, supports user-friendly interface programming. It provides users with secondary utilization and a multitude of kinematic algorithms for mechanical structures. SCStudio has a built-in virtual simulation environment for quicker development of various application scenarios.



CRStudio

CRStudio, the mobile control software for tablets, supports graphical programming. It is intuitive and easy to understand even for users with the insufficient programming experience.

For advanced users, the platform also provides script programming, which can be quickly mastered and seamlessly switched. CRStudio provides multiple programming methods for you to choose from, up to your needs.



Auto Manufacturing

Automobile manufacturing is one of the most automated industries. Among its four major processes, stamping, welding, and painting have been mostly automated with industrial robots replacing workers and technical engineers who control the robots' performance. Due to the complexity and flexibility, the assembly process is not applicable for traditional robots. Collaborative robots work alongside operators, improving the entire factory's efficiency.

Pain Point Solutions

1. More Flexibility:
Unlike traditional industrial robots, cobots can be deployed more flexibly.
2. Reliability:
Repeatability is up to 0.02mm, satisfying the installment of high-quality motors.
3. Fewer Requirements for Working Environments:
Immune to the noise and brightness as a result of welding operations at the workplace.
4. Lower Labor Costs:
Amid rising labor costs, cobots effectively minimize factory costs.

Applications

Loading
and
Unloading

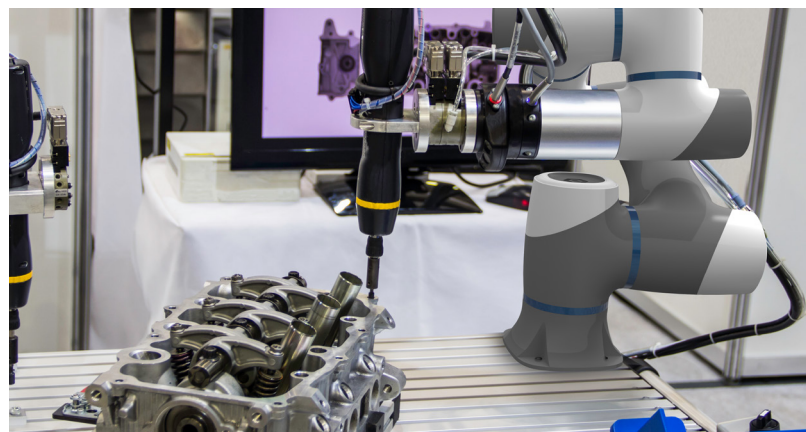
Spraying

Assembly

Inspection

Screw-
driving

Pick and
Place



LPK Dobot CR Collaborative Robot Series

can be useful in automation scenarios of automobiles and relevant components, including dip-coating, spraying, loading and unloading, screwdriving, pick and place, and machine tending.

3C

Computers, Communications, and Consumer Electronics make up what's commonly referred to as the 3C industry in China. Manufacturing in the 3C industry features large quantities, frequent updates, significant labor, and highly repetitive tasks.

Pain Point Solutions

1. Flexibility:
Adaptable to a variety of small fractions of production lines.
2. Consistency:
Delivers consistent assembled products, allowing to have a better quality control system.
3. Efficiency:
Compared to human counterparts, robots can work more quickly and efficiently, creating more value.
4. Reliable:
Cobots offer greater reliability and performance than humans and thus better quality products.

Applications

Loading
and
Unloading

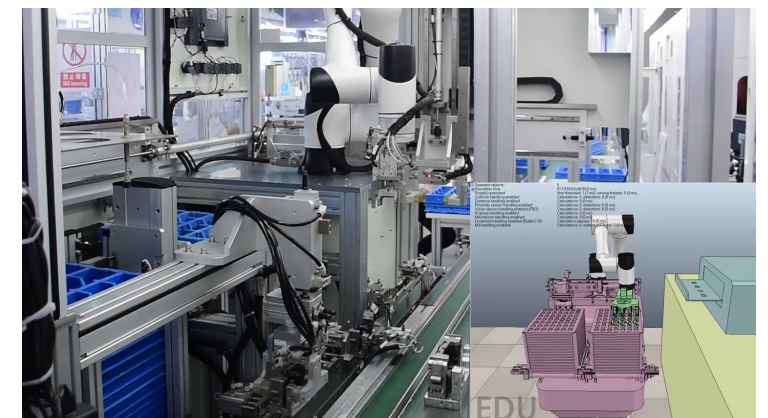
Welding

Assembly

Gluing

Handling

Palletizing



LPK Dobot CR Collaborative Robot Series

are equipped with force sensing and electronic skin devices, which can easily perform 3C assembly tasks (power supply assembly and locking) and 3C loading and unloading (plasma cleaning machine loading and unloading).

Chemical Industry

In an era when manufacturing is becoming more flexible and intelligent, IoT technologies are penetrating our lives. Bar codes as a carrier for recognizing items have been widely applied in logistics management systems in the chemical industry. Over the years, more and more businesses turn to robots replacing employees to do labelling because of cobots' higher efficiency.

Pain Point Solutions

1. Less Requirements for Working Environments:
Adaptable to a variety of work conditions, including those with high heat, toxic gases, and radiation.
2. Wider Applications:
Applicable to all kinds of labeling of plastics products, such as box bodies, rod bodies, pipe bodies, and shells.
3. Accurate and Reliable with Low Error Rates:
It can accurately and efficiently attach labels to the designated position and avoid labeling errors, eliminating material mixing.
4. Convenient & Easy to Use:
Simple single-hand guidance and interactive programming can become useful guides for robots.

Applications

Loading
and
Unloading

Handling

Labeling

Measuring

Testing

Machine
Tending



LPK DoBot CR Collaborative Robot Series

are used in the production line of a Malaysian chemical company for labeling operations, helping it grow.

Semiconductors

Manufacturing states for 46% among the global semiconductor industrial value chain lines. Therefore, it is the most valuable share in the semiconductor industry and can also drive development throughout the entire industry. Among the three major segments of China's mainland semiconductor industry, the manufacturing segment is relatively weak, with a value share of only 26%.

Pain Point Solutions

1. Flexibility:
Adaptable to a variety of small fraction semiconductor production patterns, preventing frequent changeovers and saving time.
2. Efficiency & Reliability:
High velocity and efficient products are a perfect fit for short-run, high efficiency, and fast-paced semiconductor manufacturing, greatly improving the quality of products.
3. Convenient & Easy to Use:
Simple single-hand guidance and interactive programming can become useful guides for robots. They can learn to work quickly, easily meeting all the production requirements for various types of manufacturing, including small batches.

Applications

Loading
and
Unloading

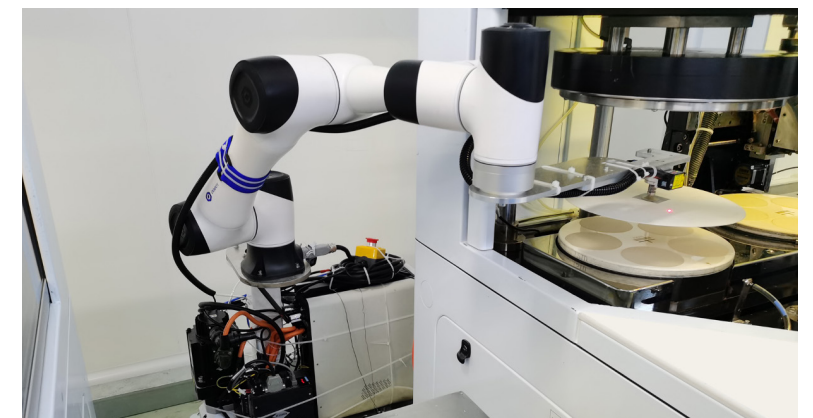
Photoetch-
ing

Cleaning

Sculpting

Precipita-
tion

Machine
Tending



With the above features, LPK DoBot CR Collaborative Robot Series

have been successfully applied in the semiconductor industry to increase efficiency and reduce costs for enterprises.

Medical

As one of the most notable areas, medical professionals are often prone to long working hours, high-intensity work tendencies, and a special environment. Turning to robots can solve these problems. Medical robots are easy to use and highly adaptable, which can help expand the scope of surgeons' professional skills.

Pain Point Solutions

1. Safe:
Combined with force torques, DOBOT cobots are very safe to work alongside, helping you complete different procedures across various environments.
2. Versatile:
DOBOT cobots can be combined with different types of flexible grippers, greatly enhancing the scope of robotic work.
3. Simple:
The operator can teach the robot's motion paths and fixtures by dragging and dropping, eliminating the need for a handheld demonstrators and allowing high-class hands-on teaching.

Applications

Extracting
liquid

Mixing
liquid

Moving
liquid

Bone
cutting

Biops

Puncturing



LPK DoBot CR Collaborative Robot Series

have been widely used in the medical field.

Retail

The emergence of unmanned retail stores and smart vending machines has allowed robots to slowly become a mainstay in people's lives. Innovative consumer formats, such as unmanned retail stores and smart vending cabinets, are improving the way of brick-and-mortar stores operate. Novel smart production also reduces costs for the stores' maintenance.

Pain Point Solutions

1. Convenient & Fast:
Customers only need to place an order online, and the robot can immediately process the order.
2. Cost Saving:
Using robots can reduce many labor costs and extend operating hours to 24/7, improving utilization time and reducing rent per unit.
3. Powerful Customer Magnet:
With an intelligent robot system in place, a restaurant or shop will attract more customers. This content will be posted on social media becoming more open to publicity. Eventually, it can lead to improving the store's operating income.

Applications

Pick and
Place

Sorting

Handling

Packaging

Art of mak-
ing latte

Baking



LPK DoBot CR Collaborative Robot Series

have been successfully applied in the new retail industry.

CR3

Industries

Food & Chemical
Furniture & Appliances
Metal Processing
Auto Components
3C Automation

Applications

Product Line Tracking in 3C Industry
Dynamic Screwdriving
Production Line Assembly
Small Loading and Unloading



CR3L

Industries

Food & Chemical
Furniture & Appliances
Metal Processing
Auto Components
3C Automation

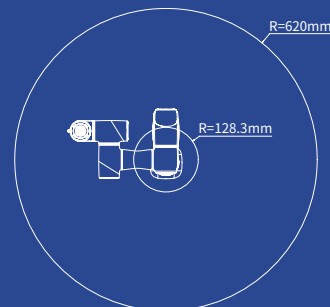
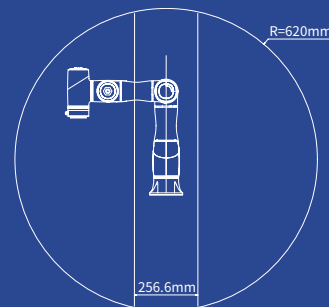
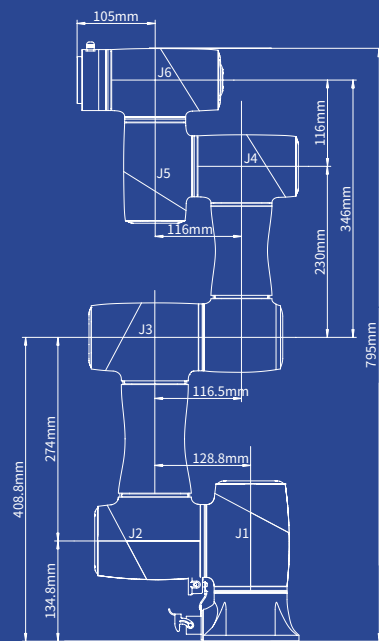
Applications

Product Line Tracking in 3C Industry
Dynamic Screwdriving
Production Line Assembly
Small Loading and Unloading

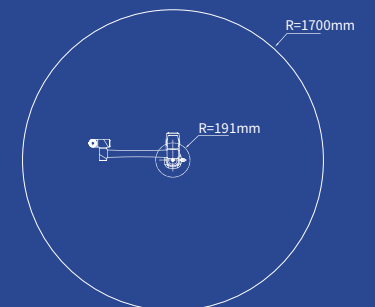
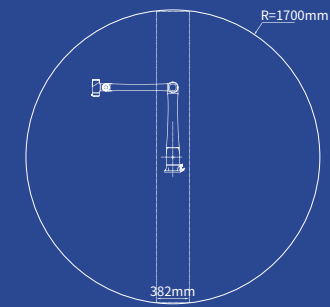
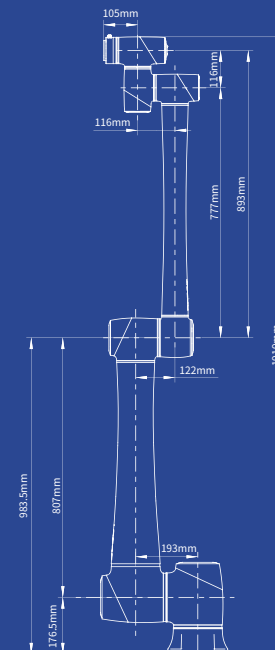


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Scope of Work



Scope of Work



CR5

Industries

3C Automation
Food Packaging
Furniture & Appliances
Metal Processing
Auto Spare Parts

Applications

Assembly Line Loading and Unloading
Dynamic Screwdriving
Production Line Assembly
Material Processing (Polishing & Sanding)



CR7

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Industries

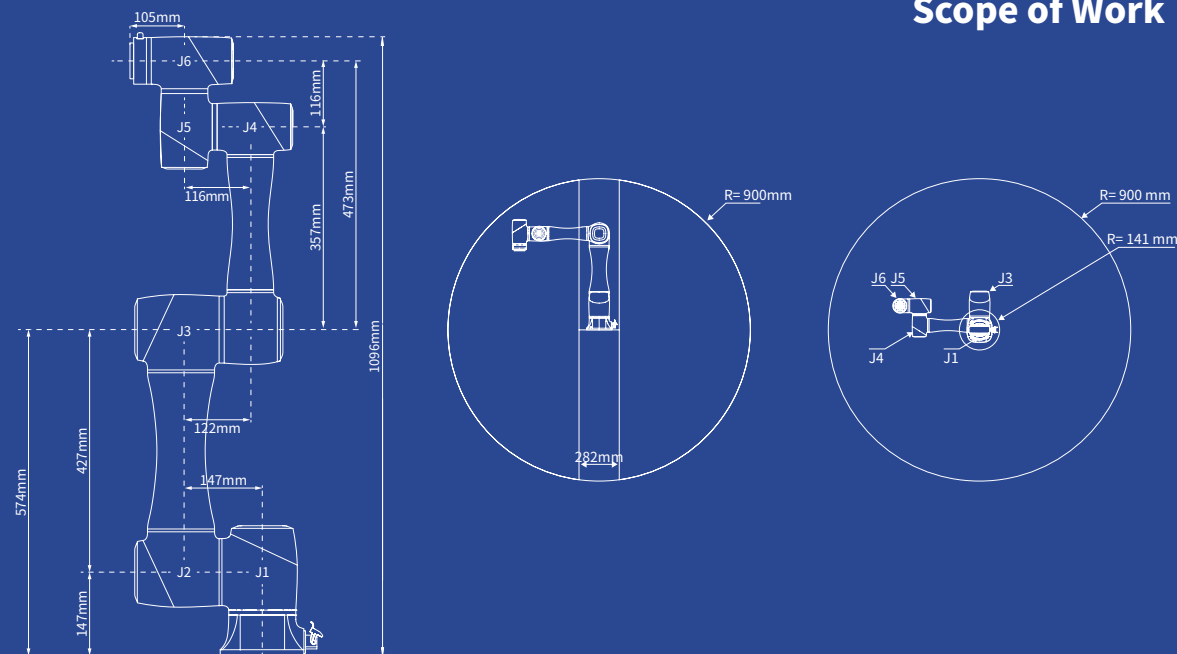
3C Automation
Food Packaging
Furniture & Appliances
Metal Processing
Auto Spare Parts

Applications

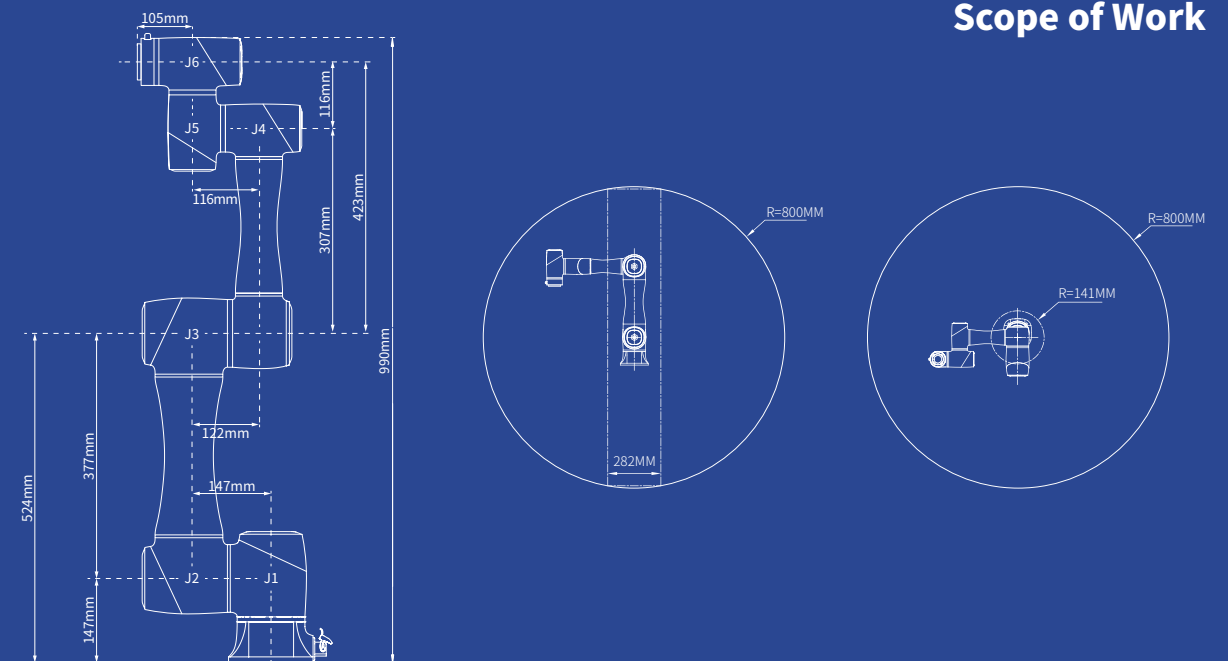
Assembly Line Loading and Unloading
Dynamic Screwdriving
Production Line Assembly
Material Processing (Polishing & Sanding)



Scope of Work



Scope of Work



CR10

Industries

Food & Chemical
Furniture & Appliances
Metal Processing
Auto Components

Applications

Machine Tool Loading/ Unloading
Heavy Duty Pick and Place
Depalletizing & Palletizing
Material Processing (Polishing & Sanding)



CR12

Industries

Food & Chemical
Furniture & Appliances
Metal Processing
Auto Components

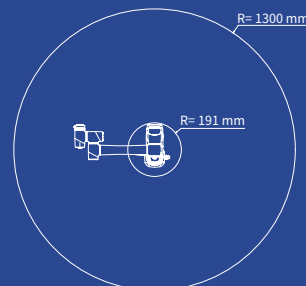
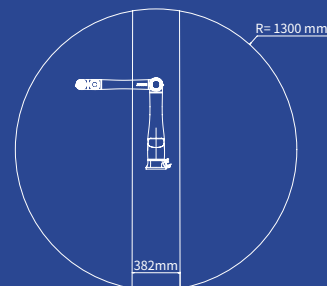
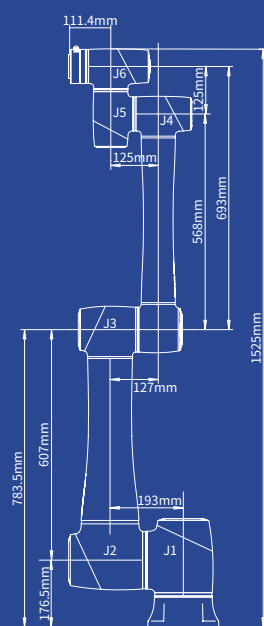
Applications

Machine Tool Loading/ Unloading
Heavy Duty Pick and Place
Depalletizing & Palletizing
Material Processing (Polishing & Sanding)

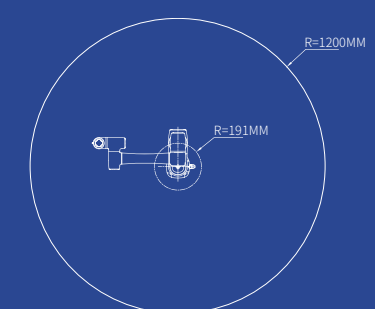
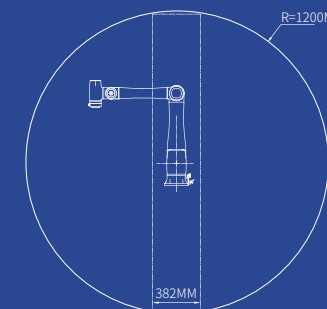
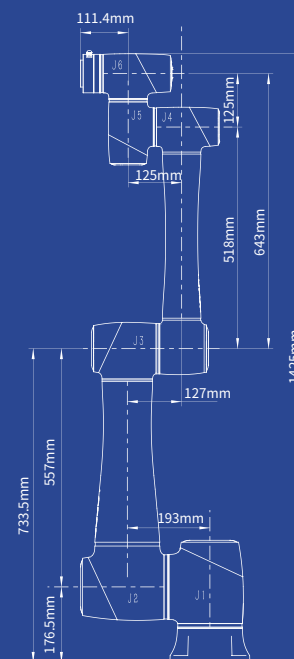


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Scope of Work



Scope of Work



CR16

Industries





- Medical & Chemical
- Furniture & Appliances
- Metal Processing
- Auto Manufacturing

Applications

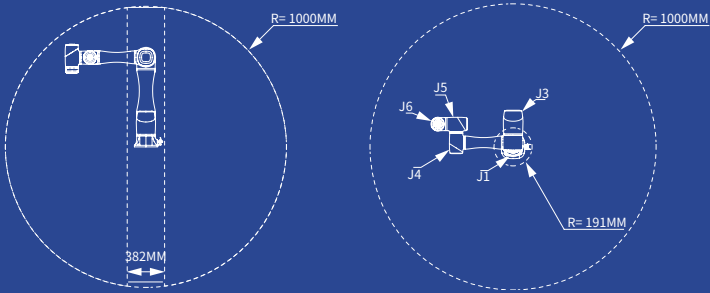
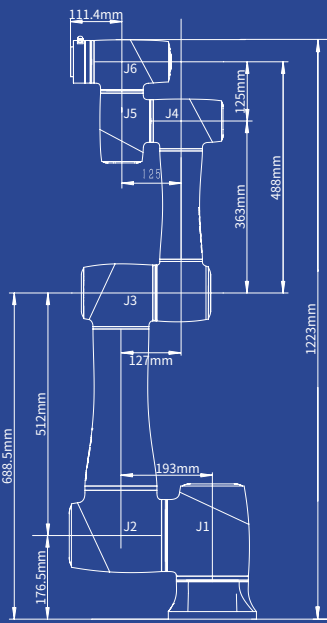
- Machine Tool Loading/ Unloading
- Heavy Duty Pick and Place
- Depalletizing & Palletizing
- Material Processing (Polishing & Sanding)

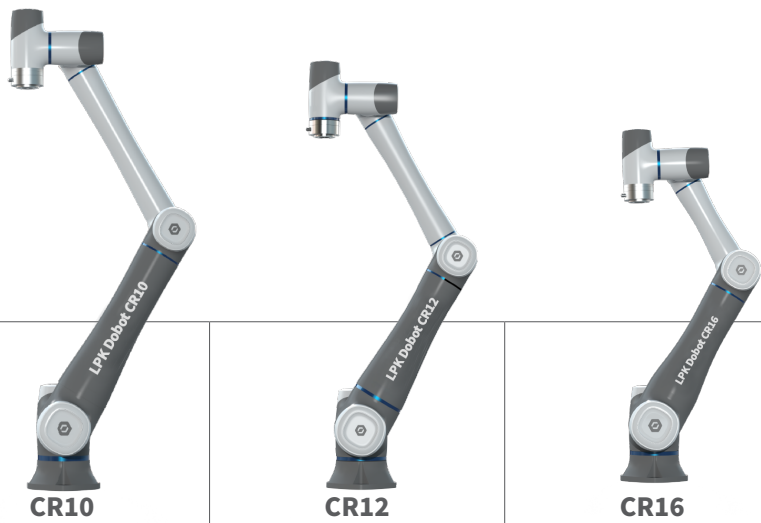


LPK DoBot CR Series Specifications

| Product Name | |  CR3 |  CR3L |  CR5 |  CR7 |
|----------------------------|-----------------------------------|--|---|--|--|
| Weight | | 16.5kg | 39.5kg | 25kg | 24.5kg |
| Rated Payload | | 3kg | 3kg | 5kg | 7kg |
| Reach | | 620mm | 1700mm | 900mm | 800mm |
| Max. Reach | | 795mm | 1919mm | 1096mm | 990mm |
| Rated Voltage | | DC48V | DC48V | DC48V | DC48V |
| Max. Speed of TCP | | 2m/s | 4m/s | 3m/s | 3m/s |
| Joint Ranges | J1 | ± 360° | ± 360° | ± 360° | ± 360° |
| | J2 | ± 360° | ± 360° | ± 360° | ± 360° |
| | J3 | ± 155° | ± 170° | ± 160° | ± 160° |
| | J4 | ± 360° | ± 360° | ± 360° | ± 360° |
| | J5 | ± 360° | ± 360° | ± 360° | ± 360° |
| | J6 | ± 360° | ± 360° | ± 360° | ± 360° |
| Max. Speed of Joints | J1/J2 | 180° /s | 120° /s | 180° /s | 180° /s |
| | J3/J4/J5/J6 | 180° /s | 180° /s | 180° /s | 180° /s |
| End-Effector I/O Interface | DI/DO/AI | 2 | | | |
| | AO | 0 | | | |
| Communication Interface | Communication | RS485 | | | |
| Controller I/O | DI | 16 | | | |
| | DO/DI | 16 | | | |
| | AI/AO | 2 | | | |
| | ABZ Incremental Encoder | 1 | | | |
| | Cable length from body to cabinet | 5M | | | |
| Repeatability | | ± 0.02mm | ± 0.05mm | ± 0.02mm | ± 0.02mm |
| Communication | | TCP/IP, Modbus TCP, WIFI | | | |
| IP Rating | | IP54 | | | |
| Temperature | | 0°C -45°C | | | |
| Power Consumption | | 120W | 300W | 150W | 150W |
| Materials | | Aluminum alloy, ABS plastic | | | |

Scope of Work





Controller Specifications



| | |
|-----------------------------|---|
| Model | CC16X |
| Size | 360mm (Length)*160mm (Width)* 402.4mm (Height) |
| Control Cabinet Weight | 12kg |
| Controlled Axes | 6 Axes + External Expansion Axes |
| Power Input | Single Phase 110V/220V AC, 7.5A, 50/60HZ |
| Power Output | 48V, 20A |
| Supported Motor Power (Max) | - |
| Braking Resistors | Four, 17W, 10 Ω |
| Supported Encoder Types | - |
| Communication Interface | Ethernet |
| I/O Interface | 16 Digital Outputs |
| | 16 Digital Inputs/Outputs (Multiplexing) |
| | 2 Analog Outputs (Voltage: 0V-10V, Current: 4mA-20mA) |
| | 2 Analog Inputs (Voltage: 0V-10V, Current: 4mA-20mA) |
| | 1 Incremental Encoder ABZ Input |
| Teaching & Playback Method | Hand-Held Teaching Pendant/APP |
| Programming Language | Script |
| | Graphical Programming (Blockly) |
| Installment | Floor |
| Environment | Temperatures: 0°C ~45°C , Humidity: \leq 95%, No Condensation |
| Protection Rating | IP20 |
| Cooling Method | Forced-Air Cooling |
| Safety Features | Emergency stop function, reserved external security interface that can be controlled by I/O interface |
| Indicator | The indicator light remain red when the power is on and be off when the power is off. |
| Maintenance | Diagnostic Software Tool |
| | Power-off Zero Save |
| | Reserve Remote Service |

| | | | | |
|----------------------------|-----------------------------------|-----------------------------|---------------------|---------------------|
| Product Name | | CR10 | CR12 | CR16 |
| Weight | | 40kg | 39.5kg | 40kg |
| Rated Payload | | 10kg | 12kg | 16kg |
| Reach | | 1300mm | 1200mm | 1000mm |
| Max. Reach | | 1525mm | 1425mm | 1223mm |
| Rated Voltage | | DC48V | DC48V | DC48V |
| Max. Speed of TCP | | 4m/s | 4m/s | 3m/s |
| Joint Ranges | J1 | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ |
| | J2 | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ |
| | J3 | $\pm 160^{\circ}$ | $\pm 160^{\circ}$ | $\pm 160^{\circ}$ |
| | J4 | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ |
| | J5 | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ |
| | J6 | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ | $\pm 360^{\circ}$ |
| Max. Speed of Joints | J1/J2 | 120° /s | 120° /s | 120° /s |
| | J3/J4/J5/J6 | 180° /s | 180° /s | 180° /s |
| End-Effector I/O Interface | DI/DO/AI | 2 | | |
| | AO | 0 | | |
| Communication Interface | Communication | RS485 | | |
| Controller I/O | DI | 16 | | |
| | DO/DI | 16 | | |
| | AI/AO | 2 | | |
| | ABZ Incremental Encoder | 1 | | |
| | Cable length from body to cabinet | 5M | | |
| Repeatability | | $\pm 0.03\text{mm}$ | $\pm 0.03\text{mm}$ | $\pm 0.03\text{mm}$ |
| Communication | | TCP/IP, Modbus TCP, WIFI | | |
| IP Rating | | IP54 | | |
| Temperature | | 0°C -45°C | | |
| Power Consumption | | 350W | 350W | 350W |
| Materials | | Aluminum alloy, ABS plastic | | |

LPK DoBot MG400

Ultra-small desktop robot arm

SAFE, FLEXIBLE, AND SELF-LEARNING



LPK
ROBOTICS

LPK DoBot MG400 is an ultra-small desktop robot arm that occupies space smaller than A4 paper. The MG400 is designed for diverse mini-batches of automation with a maximum load of 750 grams and a 440 mm arm that meets the needs for lightweight desktop applications, conversion teaching, collision detection, and other human-machine collaboration features. They allow the MG400 to apply rapid deployment of production line applications, providing a highly competitive choice for automated intelligent production.

Small Space Occupation

To fully utilize production space and easily integrate existing production environments, the MG400 has adopted a controller, the body integrated structure design, and the base frame area of only 190mm X 190mm that can fit A4 paper space.

Professional Performance

The M400 is equipped with a high-precision absolute encoder integrated into servo motors. Coupled with a self-developed servo drive and controller, the robot's repeatability can be measured up to $\pm 0.05\text{mm}$.

With the vibration suppression algorithm in the controller and ensured trajectory accuracy of multi-axis motion, the repeatability bandwidth stabilization time is accelerated by 60% and residual vibration by 70%.

Simplicity Means Productivity

Simplicity is integrated into every dimension of the robot, fully reducing the difficulty of deploying automation in small and medium-sized enterprises.

Shorter deployment time: integrated & compact design, flexible & easy to deploy, plug and play;

More programming options: trajectory reproduction, graphical programming, and Lua script programming, which are ideal for applications of different complexities and developers with different programming skills;

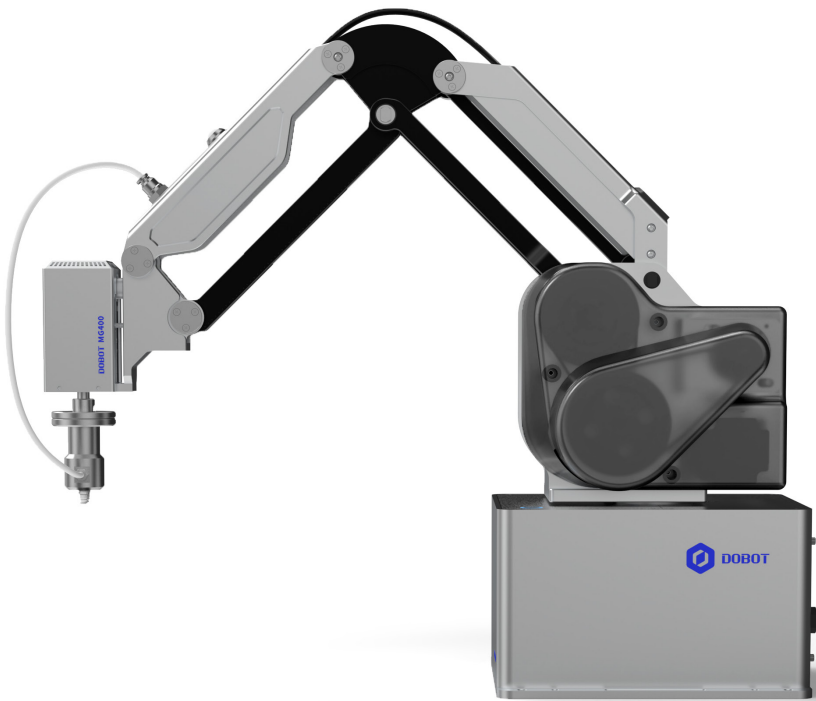
Higher programming efficiency: an intuitive programming interface and guided-interactive design can greatly improve efficiency and lower the barriers for robot applications;

Higher debugging efficiency: when resetting the robot for debugging, lighter and smoother pre-teaching combined with robot power compensation algorithms reduces point teaching time by more than 80%.

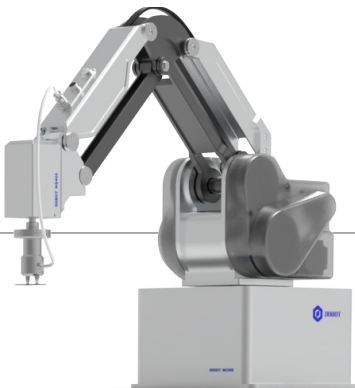
Integrated Collaboration Helps Automation

The collision detection function ensures safety. MG400's replacement of highly repetitive, standard procedures enables high-efficiency configurations of human-machine collaboration. MG400 can make desktop collaboration possible that will reduce costs and improve the quality of manufacturing for enterprises.

MG400

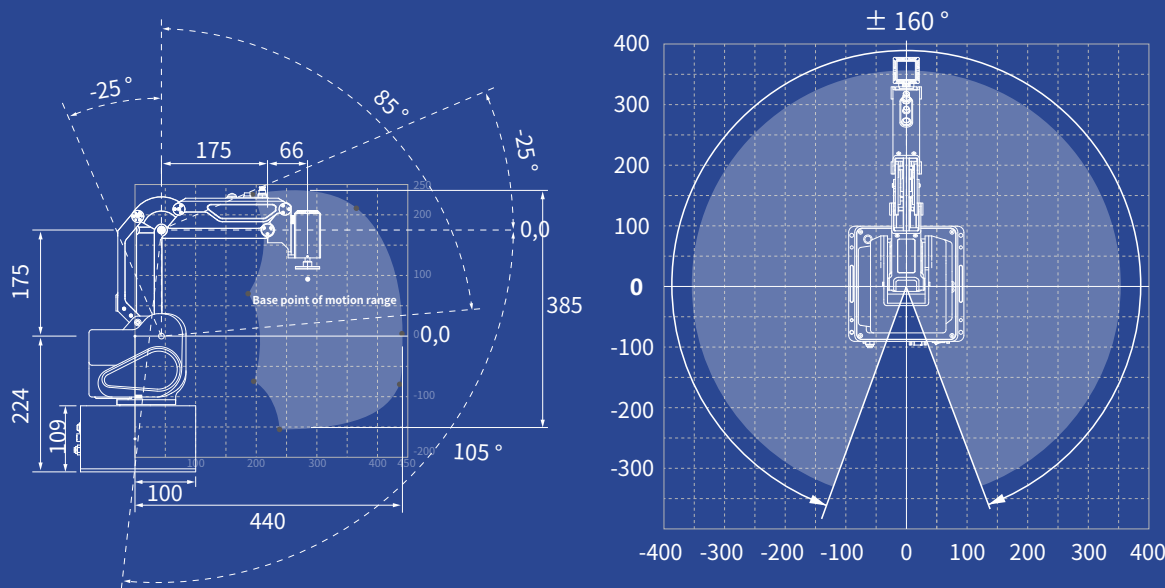


Specifications

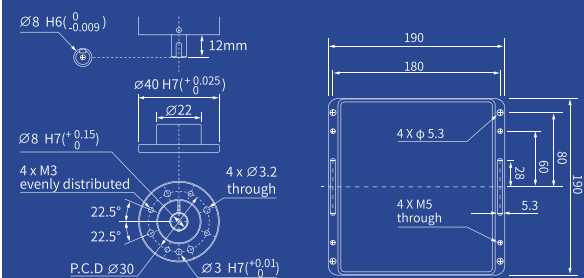


| | | |
|-----------------------|----------------------------|--------------|
| Product Name | MG400 | |
| Product Model | DT-MG400-4R075-01 | |
| Number of robot axes | 4 | |
| Payload | 500g (Max 750g) | |
| Reach | 440mm | |
| Repeatability | ± 0.05mm | |
| Range of joint motion | J1 | ± 160° |
| | J2 | -25° - 85° |
| | J3 | -25° - 105° |
| | J4 | -360° - 360° |
| Max. Speed of Joints | J1 | 300° /s |
| | J2 | 300° /s |
| | J3 | 300° /s |
| | J4 | 300° /s |
| Power Supply | 100-240 V AC, 50/60 Hz | |
| Rated Voltage | 48V | |
| Rated Power | 150W | |
| Communication | TCP/IP, Modbus TCP | |
| Installment | Table Installation | |
| Weight | 8kg | |
| Base Size | 190mm × 190mm | |
| Working Environment | 0 °C -40 °C | |
| Application Software | DobotStudio 2020, SCStudio | |

Scope of Work



Base Mounting Holes



| | | |
|--------------------|----------------|----|
| Interface | Digital Input | 16 |
| | Digital Output | 16 |
| | Ethernet | 2 |
| | USB 2.0 | 2 |
| Terminal Interface | Encoder Input | 1 |

| | | |
|--------------------|----------------|---|
| Terminal Interface | Digital Input | 2 |
| | Digital Output | 2 |
| | Airway | 1 |

LPK DoBot M1 Pro is a lightweight, cost-effective, and fully-aware human-machine collaborative robotic arm for light industries. With high precision, vast working range, and complete functions, the M1 Pro has a repeatable end positioning accuracy of 0.02mm and a maximum arm span of 400mm. M1 Pro is perfect for industrial welding, visual identification sorting, PCB plug-in, and other functions, suitable for all types of assembly line operations. The M1 Pro supports secondary development, providing users with a wide scope of use.

Innovative Structural Development

Being a cost-effective collaborative intelligent robotic arm for light industries, M1 Pro is an integral part of innovative structural development. The entire integrated machine design embedded in the electric control cabinet eliminates wiring and cabling issues, improving the efficiency between the servo drivers and control system greatly.

With lightweight structural designs of large and small arms, the robot works more stably, moves more flexibly and quickly, and is perfectly competent for various applications.

While adopting encoders with higher accuracy and stronger anti-interference capabilities, control accuracy is significantly improved, and jitter phenomena at low velocity are effectively reduced.

Adopts the Mature Intelligent Industrial Controller Architecture of LPK DoBot

M1 Pro has more powerful functions, more stable performance, and more diverse applications. It also acquires more sensitive collision detection and dragging teaching functions, enabling the robots with more collaborative attributes.

New incremental differential encoder interface extends dynamic capture and tracking applications.

Supports continuous trajectory interpolation, more uniform motion, and smoother trajectory; the application of point gluing provides more stable conditions.


Supports parallel processing, such as multi-threading and IO controls in motion, effectively shortening robot motion beats.

More Concise and Humanized Operation Mode

Supports app programming and debugging, and can be directly controlled by smart terminals, such as mobile phones and PAD.

Innovative programming and an interactive interface for more efficient monitoring and debugging.

Supports users in secondary development and remote control, extending the opportunities.



LPK DoBot M1 PRO Collaborative SCARA Robotic Arm

M1 PRO

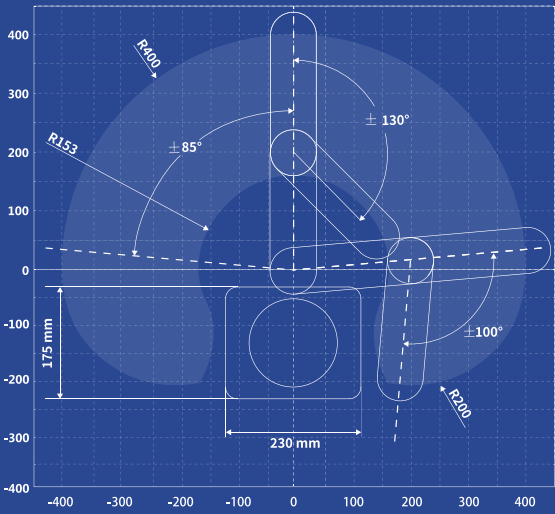
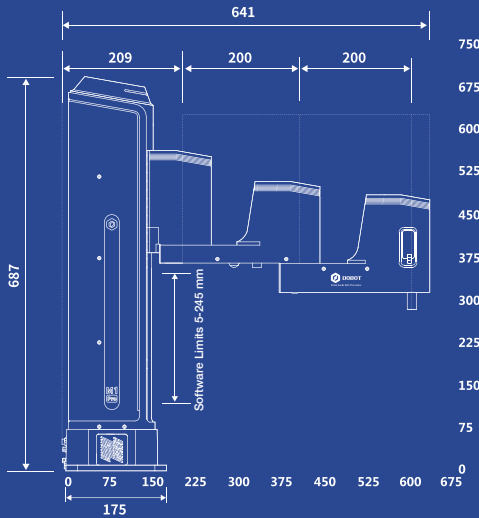


Specifications

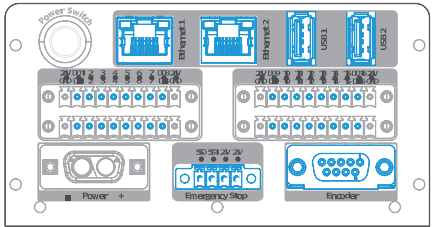
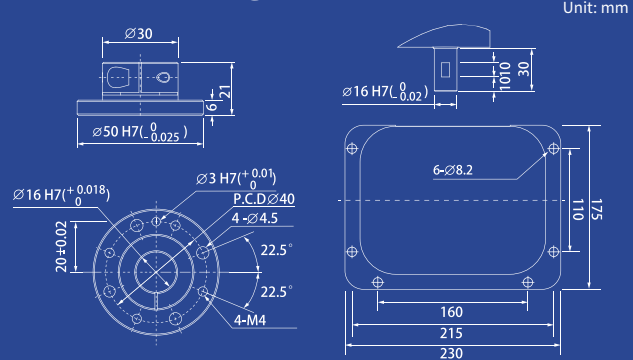


| | | |
|-------------------------|--|-----------------|
| Product Name | M1 Pro | |
| Arm Length | 400mm | |
| Rated Payload | 1.5kg | |
| Max. Range of motion | Classification | Software Limits |
| | Big arm | -85° -85° |
| | Small arm | -130° -130° |
| | Z-axis Greasing Screw Rod | 5mm-245mm |
| Max. motion velocity | End rotation | -360° -360° |
| | Joint velocity of big and small arms | 180° /s |
| | Resultant velocity of big and small arms | 2000mm/s |
| | Z-axis velocity | 1000mm/s |
| Repeatability | ± 0.02mm | |
| Power Supply | 100V-240V AC, 50/60Hz | |
| Communication Interface | Ethernet、Modbus | |
| I/O | 16 Digital Outputs 16-channel digital input | |
| Control Software | DobotStudio 2020, SCStudio | |

Scope of Work



Base Mounting Holes



| Base Interface | | Terminal Interface | |
|---------------------------|----|--------------------|---|
| Digital Input | 16 | Digital Input | 4 |
| Digital Output | 16 | Digital Output | 4 |
| Ethernet | 2 | | |
| USB 2.0 | 2 | | |
| Encoder Input | 1 | | |
| Emergency Stop In-terface | 1 | | |



TECHNICAL SUPPORT

LPK Robotics offers multiple levels of training programs and resources for our partners to get started and nurture the engineers of tomorrow.



Quick Start



Core Functions



External Device Connections



Training & Development



Repair & Maintenance



FAQs

AFTER-SALES SERVICE

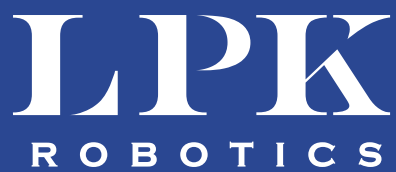
LPK Robotics always offers the professional after-sales service on time. If you have any questions about us, our technician will be happy to deal with any issues via:

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LPK Robotics
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