



DOBOT INDUSTRIAL ROBOT BRIEF

ABOUT DOBOT

DOBOT is a world-leading provider of smart robotics arm solutions. We provide easy-to-use robot arms to help businesses of all sizes to grow and scale amid various labor challenges. DOBOT works to change how people work – whether it's helping medical workers to collect samples for lab testing or enabling manufacturers to optimize processes and workflows. DOBOT lightweight collaborative robots deliver desired flexibility, reliability and return on investment for employers to rise above competitors and thrive in any industry.



DOBOT TEAM

Our team consists of over 300 hardworking and inspiring members, with over 60% dedicated to R&D. Core members of DOBOT are master graduates and PhDs of world-known universities, including MIT, Tsinghua University and Shandong University, with the professional background in remarkable enterprises like ABB and Huawei and rich experiences in underlying algorithms, servo systems and control systems of robots. At DOBOT, we strive to develop cutting-edge technologies in innovative robots and intelligent hardware. We aspire to ensure that our AI-enabled robotic arms and services empower people from all walks of life and our hard work will help transform manufacturing and education all over the world.

INNOVATION HIGHLIGHTS

DOBOT always gives high priority to independent R&D and owns independent intellectual property rights in fields of vision, control, drive, and robot manipulator. With years of experience in deep learning, intelligent control, human-machine collaboration, and whole machine assembly, DOBOT has established itself as China's number one company with most granted patents and applications, with more than 628 intellectual property rights.

628

Total Intellectual Property Rights

242

International Invention Patents

20

International Invention Patents



MARKET PRESENCE

 **No.1**

Industrial Robot Exporter in China in 2018 , 2019 & 2020

 **3000+**

Institutes & Enterprises

 **100+**

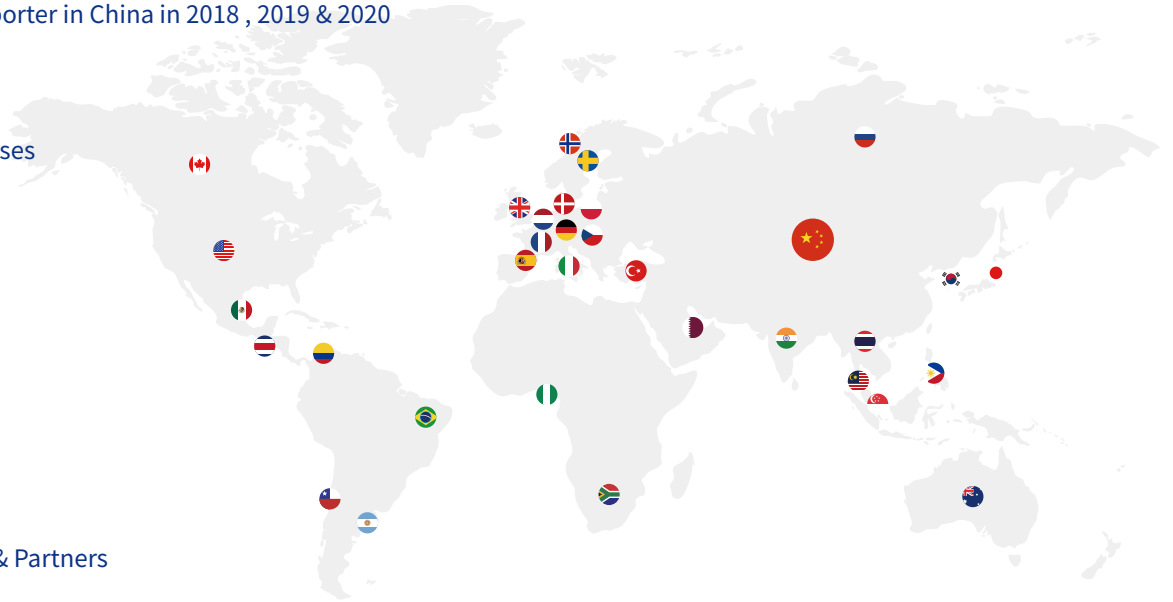
Countries

 **30000+**

Robots Sold

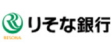
 **60+**

Global Distributors & Partners



SELECT PARTNERS & CUSTOMERS

SONY **Google** **FUJITSU** **DENSO** **FESTO** **OMRON**

 **阿里巴巴**  **腾讯云** **swatch**   **りそな銀行**  **UNIVERSITY OF OXFORD** **ETH zürich**


HUAWEI






TOYOTA


Volkswagen



DOBOT CR Collaborative Robot Series



DOBOT CR Collaborative Robot Series features 4cobots with payloads of 3kg, 5kg, 10kg, and 16kg. These cobots are safe to work alongside, cost-effective and adaptable to a variety of application scenarios. CR Cobots offer flexible deployment, single-hand guidance, collision monitoring, trajectory reproduction and other functions, making it even more suitable for human-robot collaboration scenarios.

Inherently Safe

- Real-time monitoring every 10ms
- 15cm intrusion detection range
- Collision Free
- Obstacle Avoidance

Ease of Use

- Robot Hand Guidance
- Graphical Programming
- Controls on Android, iOS and Windows

Flexible Deployment

- 20 minutes' setup
- 1 hour to put into application
- Multiple I/O and communication interfaces
- Wide compatibility with a wide array of peripheral components

Lasting Durability

- 32000 hours of service life
- ISO9001 ISO14001 GB/T29490
- 12-month warranty

Specifications



Model		CR3	CR5	CR10	CR16
Weight		16.5kg	25kg	40kg	40kg
Rated Payload		3kg	5kg	10kg	16kg
Reach		620mm	900mm	1300mm	1000mm
Max. Reach		795mm	1096mm	1525mm	1223mm
Rated Voltage		DC48V	DC48V	DC48V	DC48V
Max. Speed of TCP		2m/s	3m/s	4m/s	3m/s
Joint Ranges	J1	±360°	±360°	±360°	±360°
	J2	±360°	±360°	±360°	±360°
	J3	±155°	±160°	±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	180° /s	120° /s	120° /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			
Repeatability		±0.02mm	±0.02mm	±0.03mm	±0.03mm
Communication		TCP/IP, Modbus, EtherCAT, WIFI			
IP Rating		IP54			
Temperature		0°C~ 45°C			
Power Consumption		120W	150W	350W	350W
Materials		Aluminum alloy, ABS plastic			

MG400 Desktop Collaborative Robot



MG400 is a lightweight desktop robot with a footprint smaller than a piece of A4 paper. Engineered to be lightweight, user-friendly and safe, MG400 can be easily integrated into any production line or lab bench, making it universally accessible and affordable. Because of its cost and capabilities, MG400 thrives in applications with small-scale production, laboratory automation, research and development.

Commercially Available Industrial-Grade Performance

- Professional Hardware: MG400 has a controller design based on Linux real-time system, and makes use of the most advanced 1-to-4 servo drive technology.
- High Precision: All axes use low-voltage DC servo motors with high-precision absolute position encoders, and mechanical transmission parts with low backlash. All these put MG400 in a superior position to produce repeatability up to $\pm 0.05\text{mm}$.

Born for Desktop Application Scenarios

MG400 is designed with small-scale production in mind. With a 190mm (7.48 inches) \times 190mm (7.48 inches) footprint, the robot is lightweight enough to carry in a backpack, and compact enough to sit on a desk or workbench as well as alongside an existing production line or cell, offering you full flexibility across your business.

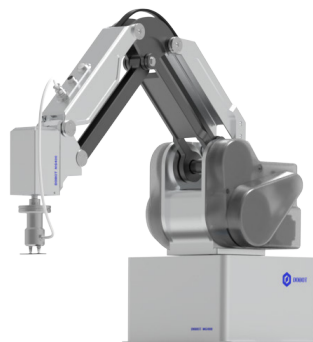
Consumer-Level Simplicity

- Teaching MG400 is as Easy as Moving Your Own Hand

With dynamic gravity compensation algorithm adopted in the robot, first-time users can effortlessly move the robot wherever they like. MG400 will be able to move to these taught with best-in-class precision.

- Multiple Controls for Beginners & Professionals

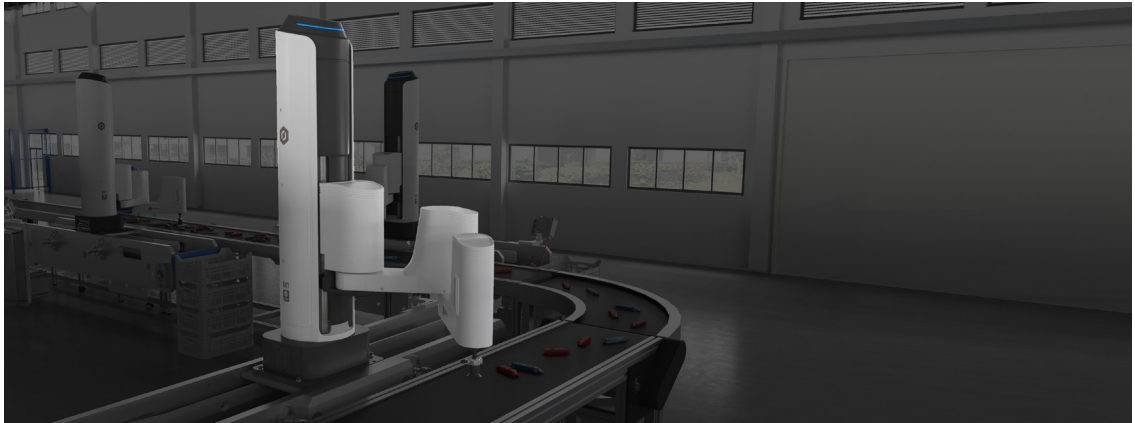
MG400 is programmable through teach and playback, block program and LUA scripting, suitable for beginners with no programming experience and veteran programmers alike.



Specifications

Name	MG400	
Model	DT-MG400-4R075-01	
Number of Axes	4	
Payload	500g (Max.750g)	
Max. Reach	440 mm	
Repeatability	±0.05 mm	
Joint Range	J1	±160°
	J2	-25° ~ 85°
	J3	-25° ~ 105°
	J4	-360° ~ 360°
Joint Maximum Speed	J1	300° /s
	J2	300° /s
	J3	300° /s
	J4	300° /s
Power	100~240 V AC, 50/60 Hz	
Rated Voltage	48V	
Rated Power	150W	
Communication Mode	TCP/IP, Modbus TCP	
Installation	Desktop	
Weight	8 kg	
Footprint	190 mm × 190 mm	
Environment	0 °C ~40 °C	
Software	DobotStudio 2020, SCStudio	

DOBOT M1 Collaborative SCARA Robotic Arm



DOBOT M1 is a lightweight, compact collaborative SCARA robotic arm, ideal for table-top applications. Its small footprint makes it suitable to be built directly inside machinery or in other tight workspaces. The robot features high precision, wide working range, and supports secondary development, providing users unlimited freedom to use.

Safe to Work Alongside

- The robot stops immediately when it hits a person or an object.
- No security fence is required.

Easy-Use Software

- Blockly Graphic Programming
- Script Programming
- Teach & Playback

DobotLink Development Software

- API
- Demo Code
- Support WebSocket compliant programming languages such as C(++), Python, PHP, JavaScript, HTML, etc.

Communication Interface

- Ethernet
- RS-232C

I/O

- 22 digital outputs
- 24 digital inputs
- 6 ADC inputs





Specifications

Reach	400mm		
Rated Payload	1.5kg		
Maximum magnitude	Type	Mechanical limitation	Software limitation
	Rear arm	-90° ~90°	-85° ~85°
	Forearm	-135° ~135°	-135° ~135°
	Z-axis screw	0mm~250mm	10mm- 235mm
	End-effector rotation	Rotatable	-360° ~360°
Maximum speed	Joint speed of Forearm and Rear Arm		180°/s
	Resultant speed of the Forearm and Rear Arm		2000 mm/s
	Speed of Z Axis		1000 mm/s
Repeatability	0.02mm		
Power	Power Adapter: 100V-240V AC, 50/60Hz Dobot M1: 48V DC		
Communication interface	Ethernet, RS-232C		
I/O	22 digital outputs, 24 digital inputs, 6 ADC inputs		
Software	M1 Studio		
System	Linux		

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Disclaimer: Product images and case information are for reference only, goods in kind prevail

 @dobotarm



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