DOBOT INDUSTRIAL ROBOT BRIEF





ABOUT DOBOT

Founded in 2015, DOBOT is a leading all-perceptual robotics solution provider for manufacturing, commerce and STEAM education, focusing on developing all-perceptive intelligent robotics arms that are integrated with perception and interaction.

With DOBOT's remarkable breakthroughs in vision, control, servo, drive and robotic body, we have maintained rapid growth and stayed as the No.1 exporter of collaborative robots in China for the past 3 years, enabled 200,000 users globally.



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 a 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. Furthermore, 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 the most granted patents and applications, with more than 870 intellectual property rights.



Total Intellectual Property Rights



International Invention Patents



Patent Cooperation Treaty



MARKET PRESENCE



SELECT PARTNERS & CUSTOMERS





DOBOT CR Collaborative Robot Series



DOBOT CR Collaborative Robot Series features 4 cobots 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 Cobot features flexible deployment, hand-guided learning, collision monitoring, trajectory reproduction and other functions, making it even more suitable for human-robot collaboration scenarios.

SafeSkin (Add-on)

With the electromagnetic induction in SafeSkin, the CR collaborative robot series can detect an electromagnetic object quickly within 10ms and immediately stop operating to avoid collision. After the path has been cleared, CR collaborative robot will automatically resume operation without compromising production process.

Ease to Use & Operate

Our software and arithmetic technology makes the operation and management of the CR collaborative robot series intelligent and straightforward. With our software and technology, It can accurately emulate human actions by demonstrating the path with your hands. No programming skills are required.

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

- 32,000 hours of service life
- ISO9001, ISO14001, GB/T29490
- 12-month warranty



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Specifications				C	and the second s	
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	
	J1	360°	360°	360°	360°	
	J2	360°	360°	360°	360°	
	J3	160°	160°	160°	160°	
Joint Range	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	
	DI/DO/AI	2				
End-Effector I/O Interface	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 TCP, Ether CAT, Wireless Network				
IP Rating		IP54				
Temperature		0°C~ 45°C				
Humidity		95%RH (non-condensing)				
Noise		Less than 65 dB				
Power Consumption		120W	150W	350W	350W	
Materials		Aluminum alloy, ABS plastic				



MG400 Desktop Collaborative Robot



DOBOT MG400 is a space saving lightweight desktop robot with a footprint smaller than a piece of A4 paper.Designed to be simple in all dimensions, MG400 is a perfect fit for repeating lightweight tasks and automated workbench scenarios in tight workspaces that requires fast deployment and changeover.

Simplicity boosts Productivity

MG400 is easy to re-deploy into multiple applications without changing the production layout. By simply plug-in and play after moving it to new production processes, MG400 gives businesses the agility to automate almost any manual task, including those with small batches or fast change-overs. With our software and technology, It can accurately emulate human actions by demonstrating the path with your hands. No programming skills are required. In addition, MG400 can re-use programs for recurrent tasks.

Precise Performance & Industrial-standard Parts

MG400 is equipped with quality, reliable and safe mechanical components such as DOBOT IR&D servo motors, controller and high-precision absolute encoder. With these features, MG400's repeatability is boosted up to 0.05mm. Moreover, 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 the residual vibration by 70%. These made the desktop collaborative robot fast and smooth and performed with the exact precision businesses ever want.

Low Startup Cost & Fast Return On Investment

Generally, businesses might be skeptical about involving automation in production processes for the first time. MG400 costs just one-third of a traditional industrial robot that could effectively lower the startup costs and operating costs for businesses. MG400 is a lasting long-term solution that provides you with new growth opportunities as well as increase productivity. In the long run, automation can create substantial profit margins and offers a quick return on investment.





Specifications

Name	MG400			
Model	DT-MG400-4R075-01			
Number of Axes	4			
Effective Payload(kg)	0.5			
Max. Reach	440 mm			
Repeatability		0.05 mm		
	J1	160°		
laint Dan sa	J2	-25°~85°		
Joint Range	J3	-25°~105°		
	J4	-25°~105°		
	J1	300 °/s		
	J2	300 °/s		
Joint Maximum Speed	J3	300 °/s		
	J4	300 °/s		
Power	100~240 V AC, 50/60 Hz			
Rated Voltage	48V			
Rated Power	150W			
Communication Mode	Т	TCP/IP, Modbus TCP, EtherCAT, Wireless Network		
Installation	Desktop			
Weight	8 kg			
Footprint	190 mm 190 mm			
Environment	0 °C ~40 °C			
Software	Dobot Vision Studio, Dobot SC Studio,Dobot Studio 2020			



DOBOT M1 Pro Collaborative SCARA Robot



M1 Pro is DOBOT's 2nd-generation intelligent collaborative SCARA robot arm based on the dynamic algorithm and a series of operational software. M1 Pro is ideal for industrial needs requiring high speed and accuracy, such as loading and unloading, pick-and-place or assembly operations.

Smart Performances

M1 Pro's encoder interface supports conveyor tracking functionality to adjust robot paths to the motion of a conveyor. Using interpolation, M1 Pro improves path planning automatically while maintaining the smoothness of moving. This guarantees the consistent quality of work and production such as the gluing application. Moreover, M1 Pro features with multi-thread and multi-task technology.

Low Startup Cost, Fast Return on Investment

M1 Pro could effectively speed up the integration and production debugging time, lower the startup costs and operating costs for businesses. In the long run, creates substantial profit margins and offers businesses a quick return on investment.

Easy programming

M1 Pro supports wireless control with different devices with multiple programming options. The operator can drag and drop to program on DOBOT's graphical programming software after simple training. Another option would be a hand-guided teaching pendant. The robot arm can accurately emulate human actions by demonstrating the path with the operator's hands. It significantly saves time on testing and simplifies the process of programming.



Specifications

Reach	400mm			
Effective Payload(kg)	1.	1.5		
	Joint	Motion Range		
	J1	-85°~85°		
Joint Range	J2	-135°~135°		
	J3	5mm- 245mm		
	J4	-360°~360°		
	J1/J2	180°/s		
Maximum speed	J3	1000 mm/s		
	J4	1000 mm/s		
Repeatability	±0.0)2mm		
Power	100V-240V AC, 50/60Hz DC 48V			
Communication interface	TCP/IP, Modbus TCP			
Ι/Ο	22 digital outputs, 24 digital inputs, 6 ADC inputs			
Software	DobotStudio 2020, Dobot SC Studio			

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