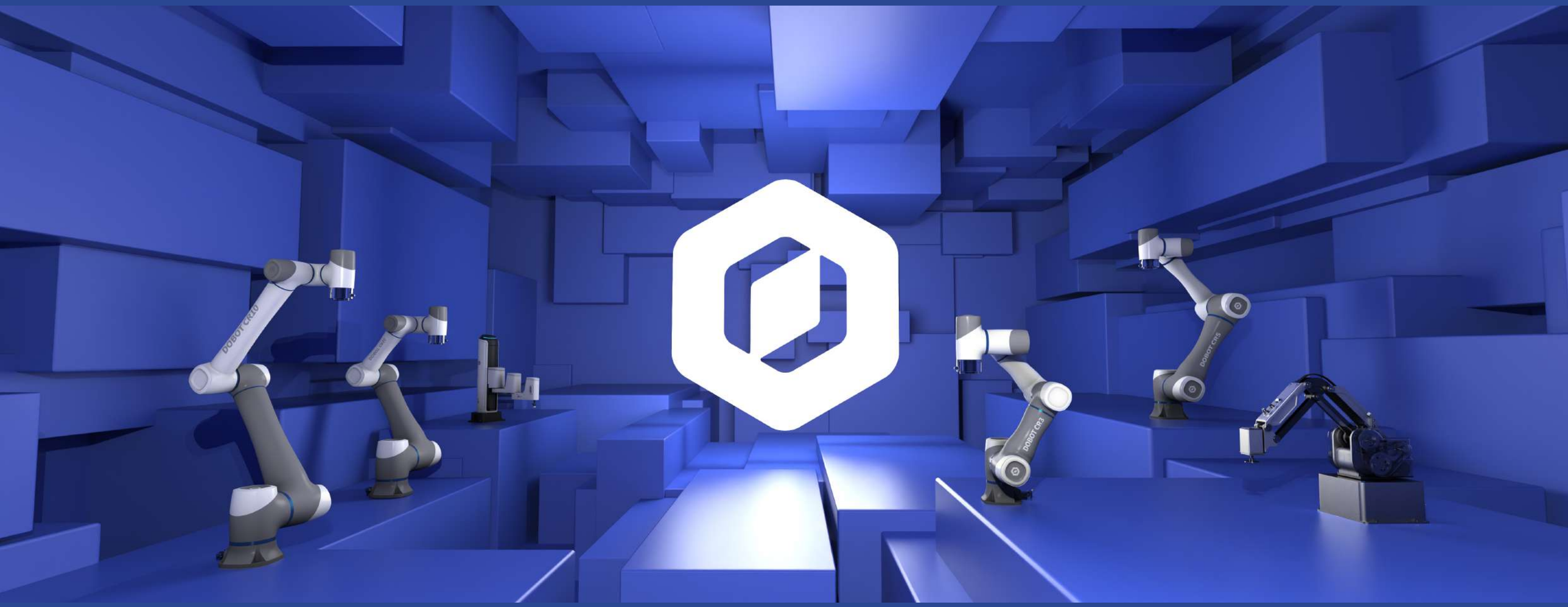
DOBOT

Global Leading Provider of Collaborative & Industrial Robot Arm Solutions

ABOUT DOBOT



DOBOT is the world leading provider of smart robotic arm solutions. Our solution seamlessly integrates AI-powered lightweight robotic arms and proprietary software suite, effectively helping industrial clients navigate around rising wages, lack of qualified laborers and other bottlenecks preventing companies to scale. By replacing traditional manufacturing processes with advanced human-machine collaboration models, DOBOT meets the demands of flexible production, plays a critical role in elevating China manufacturing industry and will be the standard of tomorrow's smart production process.

In addition, DOBOT is proud to be spearheading robotic arm awareness in education and research. We have partnered with globally renowned K-12 and higher academic institutions, providing DOBOT robot solutions to over 1 million educators and researchers.

DOBOT is customer centric and values independent innovation. In the past 5 years since founding, we insist on developing our own solution on key technologies. Our team is always one step ahead, creating new product categories and defining new smart production standards to support the manufacturing industry.

DOBOT CR Collaborative Robot Series

Safe, Flexible and Self-Learning

DOBOT

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 Cobots offer flexible deployment, single-hand guidance, collision monitoring, trajectory reproduction and other functions, making it even more suitable for man-robot collaboration scenarios.

Easy to Use

- Easy programming using visual, drag & drop and block-based programming language
- Teachable by demonstration or single-hand guidance
- Real-time control on your mobile phone, iPad, or tablet through Wi-Fi connection

Inherently Safe, Collision-Free Collaborative

- Real-time obstacle avoidance with every-5ms dynamic monitoring, 10cm-proximity pre-touch sensing & online route planning combined to produce the best trajectory to avoid obstacles
- Multi protection with force sensing, obstacle avoidance & camera entry detection

Flexible & Fast Deployment

- Fast setup requiring only 20 minutes to set up, 1 hour to put into application
- Wide compatibility with mainstream end-effectors and accessories
- Fast changeovers perfect for customized/flexible/lean manufacturing

Economical & Durable

- Limited space with no security fence required
- Long-lasting durability with 32,000 hours of service life, built-in energy feedback & hectowatt-level power consumption

CR3

Industries

Food & Chemical

Furniture & Appliances

Metal Processing

Auto Components

Applications

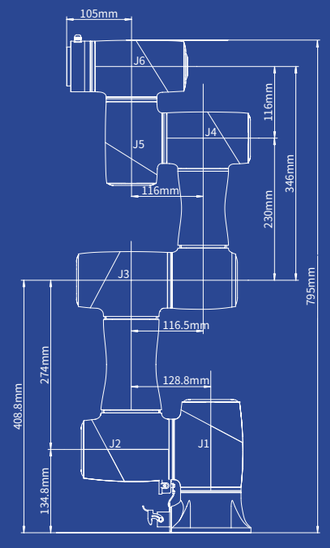
Product Line Tracking in 3C industry

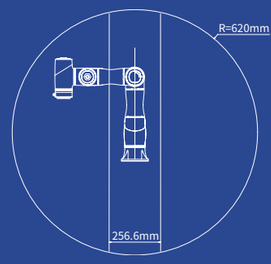
Dynamic Screwdriving

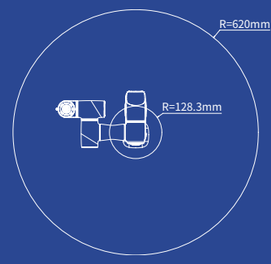
Assembly

Feeding

Working Range







CR5

Industries

3C Automation

Food Packaging

Furniture & Appliances

Metal Processing

Auto Components

Applications

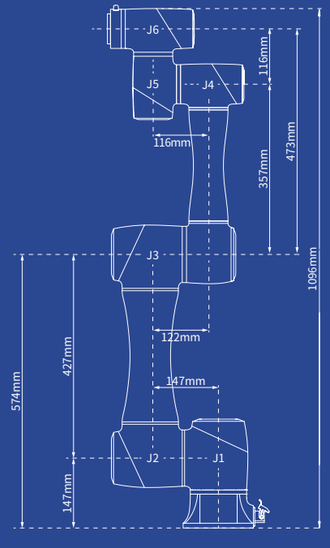
Product Line Tracking in 3C industry

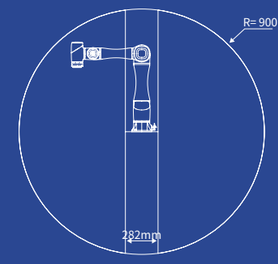
Dynamic Screwdriving

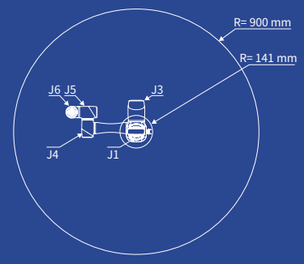
Assembly

Material Processing (Polishing & Sanding)

Working Range







CR10

Industries

Food & Chemical

Furniture & Appliances

Metal Processing

Auto Components

Applications

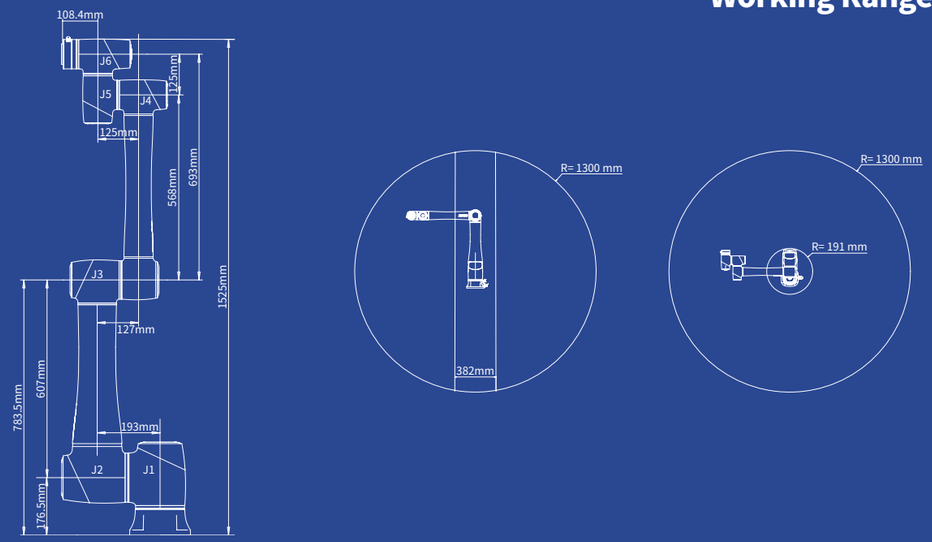
Machine Tool Loading/Unloading

Heavy Duty Pick and Place

Depalletizing & Palletizing

Material Processing (Polishing & Sanding)

Working Range



CR16

Industries

Medical & Chemical

Furniture & Appliances

Metal Processing

Auto Manufacturing

Applications

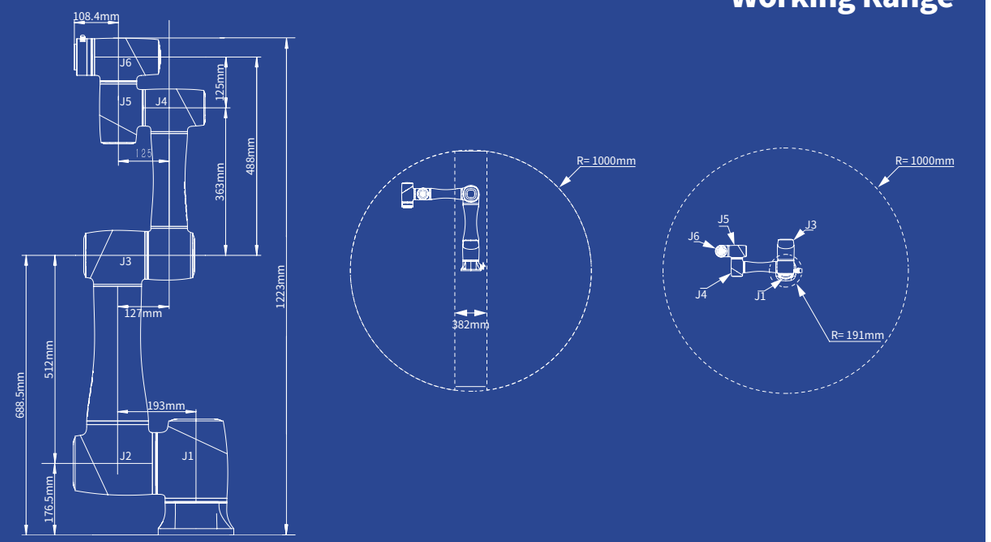
Machine Tool Loading/Unloading

Heavy Duty Pick and Place

Depalletizing & Palletizing

Material Processing (Polishing & Sanding)

Working Range



CR Collaborative Robot Series

Specifications

Model		CR3	CR5	CR10	CR16
Weight		16.5kg	23kg	38kg	37kg
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			

Controller Specifications

Model	CC16X
Size	360mm(Length)*160mm(Width)* 402.4mm(Height)
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, 10Ω
Supported Types of Encoders	-
Communication Interface	EtherCAT (for External Axes), 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
Method of Teach & Playback	Hand-Held Teach Pendant/APP
Programming Language	Script
	Graphical Programming (Blockly)
Installment	Floor
Environment	Temperature: 0°C ~45°C ,Humidity: ⩽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 will be steady red when the power is on; the indicator light will be off when the power is off.
Maintenance	Diagnostic Software Tool
	Power-off Zero Save
	Reserve Remote Service