



# CR Collaborative Robot Series

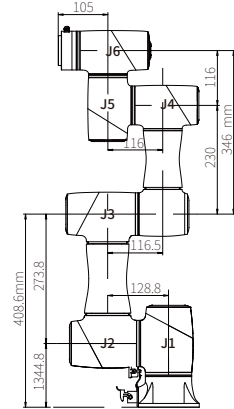
Safe, Flexible and Self-Learning

DOBOT CR collaborative robot series features 4 cobots of payloads of 3KG, 5KG, 10KG, and 16KG. These cobots are safe to work alongside, cost-effective and able to adapt to a variety of different application scenarios. CR Cobots offer flexible deployment, single-hand guidance, collision detection, trajectory reproduction and other functions, making it more suitable for man-robot collaboration scenarios.

## CR3

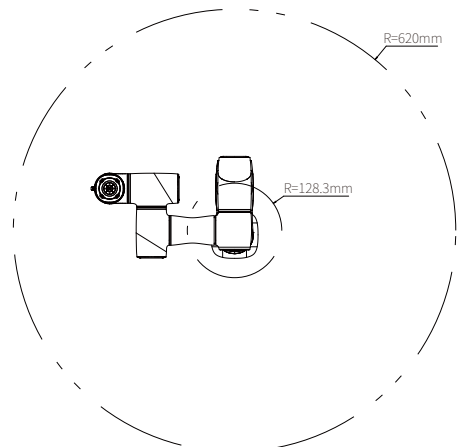
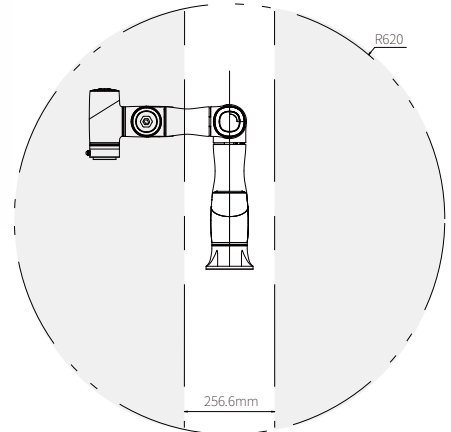


### Reach



### Specifications

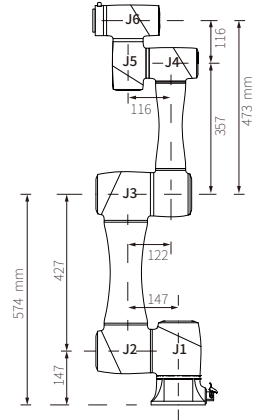
Weight	16.5kg	
Payload	3kg	
Reach	620mm	
Maximum Speed of TCP	2m/s	
Joint Ranges	J1	±360°
	J2	±360°
	J3	±160°
	J4	±360°
	J5	±360°
	J6	±360°
Maximum Speed of Joints	J1	180° /s
	J2	180° /s
	J3	180° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
I/O Interface on the End-Effector	DI	2
	DO	2
	AI	2
	AO	0
Communication Interface on the End-Effector	RS485	
I/O Interface for the Controller	DI	16
	DO/DI	16
	AI	2
	AO	2
	ABZ Incremental Encoder	1
Repeatability	±0.02mm	
Power Supply	100V~240V AC, 50~60Hz	
Communication	TCP/IP, Modbus, EtherCAT, WIFI	
IP Rating	IP54	
Temperature	0°C ~ 45°C	
Power Consumption	120W	
Materials	Aluminum alloy, ABS plastic	



# CR5

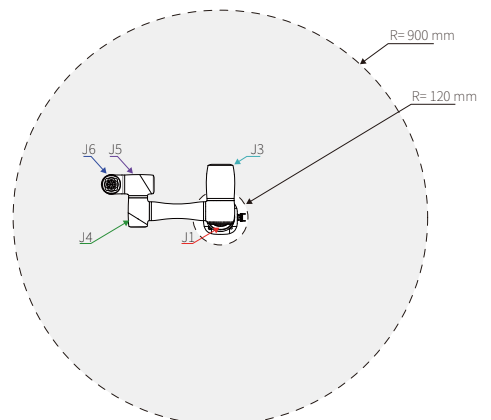
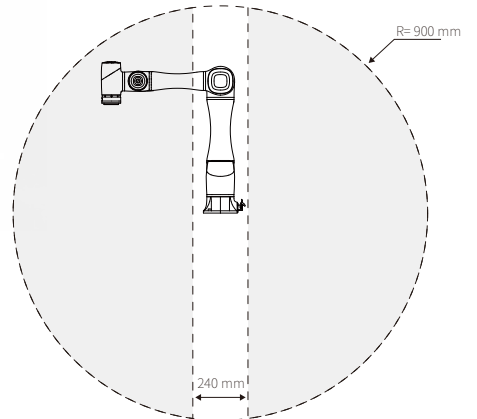


## Reach



## Specifications

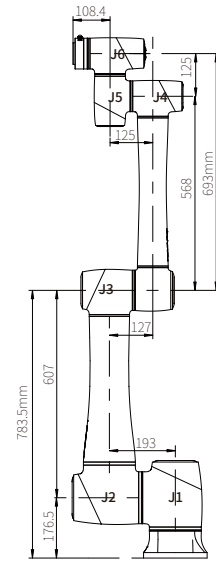
Weight	23kg	
Payload	5kg	
Reach	900mm	
Maximum Speed of TCP	3m/s	
Joint Ranges	J1	±360°
	J2	±360°
	J3	±160°
	J4	±360°
	J5	±360°
	J6	±360°
Maximum Speed of Joints	J1	180° /s
	J2	180° /s
	J3	180° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
I/O Interface on the End-Effector	DI	2
	DO	2
	AI	2
	AO	0
Communication Interface on the End-Effector	RS485	
I/O Interface for the Controller	DI	16
	DO/DI	16
	AI	2
	AO	2
	ABZ Incremental Encoder	1
Repeatability	±0.02mm	
Power Supply	100V~240V AC, 50~60Hz	
Communication	TCP/IP, Modbus, EtherCAT, WIFI	
IP Rating	IP54	
Temperature	0°C ~ 45°C	
Power Consumption	150W	
Materials	Aluminum alloy, ABS plastic	



# CR10

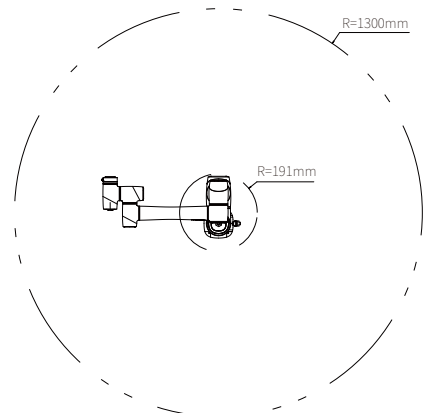
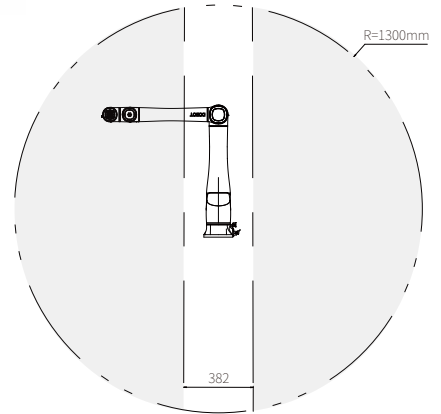


## Reach



## Specifications

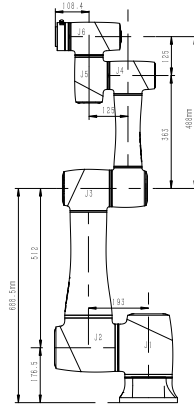
Weight	38kg	
Payload	10kg	
Reach	1300mm	
Maximum Speed of TCP	4m/s	
Joint Ranges	J1	±360°
	J2	±360°
	J3	±160°
	J4	±360°
	J5	±360°
	J6	±360°
Maximum Speed of Joints	J1	120° /s
	J2	120° /s
	J3	180° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
I/O Interface on the End-Effector	DI	2
	DO	2
	AI	2
	AO	0
Communication Interface on the End-Effector	RS485	
I/O Interface for the Controller	DI	16
	DO/DI	16
	AI	2
	AO	2
	ABZ Incremental Encoder	1
Repeatability	±0.03mm	
Power Supply	100V~240V AC, 50~60Hz	
Communication	TCP/IP, Modbus, EtherCAT, WIFI	
IP Rating	IP54	
Temperature	0°C ~ 45°C	
Power Consumption	350W	
Materials	Aluminum alloy, ABS plastic	



# CR16

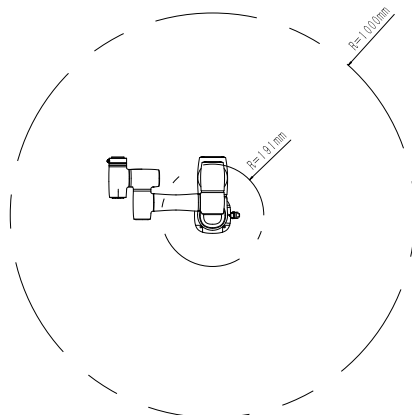
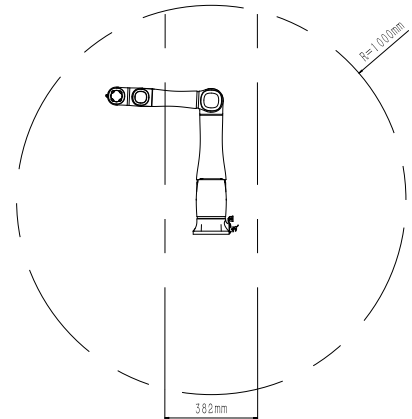


## Reach



## Specifications

Weight	37kg	
Payload	16kg	
Reach	1000mm	
Maximum Speed of TCP	3m/s	
Joint Ranges	J1	±360°
	J2	±360°
	J3	±160°
	J4	±360°
	J5	±360°
	J6	±360°
Maximum Speed of Joints	J1	120° /s
	J2	120° /s
	J3	180° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
I/O Interface on the End-Effector	DI	2
	DO	2
	AI	2
	AO	0
Communication Interface on the End-Effector	RS485	
I/O Interface for the Controller	DI	16
	DO/DI	16
	AI	2
	AO	2
	ABZ Incremental Encoder	1
Repeatability	±0.03mm	
Power Supply	100V~240V AC, 50~60Hz	
Communication	TCP/IP, Modbus, EtherCAT, WIFI	
IP Rating	IP54	
Temperature	0°C ~ 45°C	
Power Consumption	350W	
Materials	Aluminum alloy, ABS plastic	



# Controller

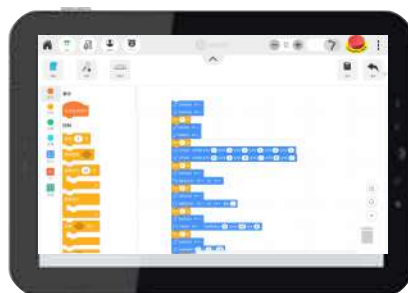


Model Number	DT-CR-CC16X-001
Controlled Axes	6 Axes+External Expansion Axes
Input Power	Single Phase 110V/220V AC, 7.5A, 50/60HZ
Output Power	48V, 20A
Supported Motor Power (Max.)	-
Braking Resistors	Four, 17W, 10Ω
Supported Types of Encoders	-
Communication Interface	EtherCAT(for External Axes), Ethernet
I/O Interface	<ul style="list-style-type: none"> <li>· 16 Digital Outputs</li> <li>· 16 Digital Inputs/Outputs (Multiplexing)</li> <li>· 2 Analog Outputs (Voltage: 0V-10V, Current: 4mA-20mA)</li> <li>· 2 Analog Inputs (Voltage: 0V-10V, Current: 4mA-20mA)</li> <li>· 1 Incremental Encoder ABZ Input</li> </ul>
Method of Teach & Playback	Hand-Held Teach Pendant/APP
Programming Language	Script/Blockly/Graphical Programming
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 blue 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

# Control Software

## CR Studio

CR Studio, the mobile control software for tablets, supports graphical programming and is intuitive and easy to understand even for users without much programming experience. For users with advanced experience, the platform also provides script programming. Multiple programming methods are free for you to choose from.



## DOBOT SCStudio

DOBOT SCStudio, the windows control software for CR cobots, supports user-friendly interface, innovative interactive programming, and further development. It also provides a multitude of kinematic algorithms for mechanical structures, and has a built-in virtual simulation environment for quicker deployment of various applications.





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