



GCR SERIES COBOT

Strive to be the Best Partner for Smarter Future

ABOUT US

Founded in 2014, SIASUN-DUCO focuses on R&D of Next-Generation Intelligent Robots. As the sub-brand of SIASUN CORPORATION (Stock No.300024), SIASUN-DUCO has retained SIASUN's innovative spirit and craftsmanship philosophy, deeply creating continuous values to the world. Currently, SIASUN-DUCO has brought cutting-edge technologies in multiple industries, with 100% core components of HW & SW originally self-manufactured.

28 million USD⁺
Annual Sales

30⁺
Types of Robots

200⁺
High-Level talents



1500+
Projects



300+
Patents



30+
Countries



40%+
R&D Engineers



20%+
High-End Customers



GLOBAL LOCATION



- 1 **Headquarter:** Block 4, No.358 Jinhu Road, Pudong District, Shanghai.
- 2 **Thailand:** 112 Moo 2, KM. 15 th Bangna-Trad Rd, Bangchalong, Bangplee, Samutprakarn.
- 3 **Malaysia:** 1050708 Jalan Gurdwara hexagon tech park 10300 george town pulau pinang.
- 4 **Singapore:** 3A International Business Park, Tower B #08-18, Singapore.
- 5 **Germany:** Austraße 58, 71642 Ludwigsburg, Stuttgart.
- 6 **Mexico:** piso 5 oficina 518 avenida miguel hidalgo 330 monterrey centro monterrey nuevo leon.
- 7 **America:** 2021 Guadalupe Street, Suite 260, Austin, Texas.
- 8 **Japan:** 5F, CLOTO Building, 376 Ichinofunairicho Kawaramachi-dori, Nijo Sagaru, Nakagyo-Ku, Kyoto. 604-0924.

PRODUCT ADVANTAGES AND FEATURES



TÜV SÜD Certified Safety System

- Approved by TÜV SÜD, conforming to EN ISO 10218-1:2011, ISO/TS 15066:2016, ISO 13849-1:2023, EN/IEC 61508, etc.
- Full-time monitoring of collision, force and power, ensuring human-robot collaboration safety.
- Cat 3, PLd/PLe grade safety function and independent safety control board, with redundancy MCU safety circuit and IEC 61784 safety communication.



100% Original Manufacturer

- High-Performance Motion Control Algorithm.
- High-Power drive with optimized heat dissipation.
- High-Speed reliable communication by EtherCAT.



Zero-Code User-Friendly OS

- Direct teaching empowers the human-robot collaboration with more flexibility.
- Zero-Code Graphic Programming lowers the threshold of know-how.
- Wireless teaching supports cross-platform OS in terminals, e.g. mobile phones, tablets and PC.



Open Source API/SDK

- Remote Control API in Windows/Linux with C++, Python, C#.
- SDK and script programming feasible for ROS/ROS2.
- DUCO-CORE simulation for open source development.



Low Cost Maintenance

- Higher ratio of payload/weight, 200W min. power consumption.
- No gearbox, cost-saving maintenance.
- LINUX operation system, lifetime iterative upgrades.



Various EOAT Application

- 2D/2.5D/3D AI+ vision integration.
- Plug-and-play EOAT options with DI/DO/AI/AO(Conveyor, Torque sensor, Actuator, etc.).
- Built-in standard software kits (welding, palletizing, dispensing, etc.).



SELF-MADE ROBOTIC JOINT



≥ 110 Nm/kg
Max. Torque

≥ 510 W/kg
Max. Power Output

- Built-in Absolute & Incremental Encoders

< 1/12°
Position Control Accuracy

≥ 75%
Max. Efficiency

- Electromagnetic Motor Brake



CONTROL SYSTEM

Control Box (DC15S/30D)

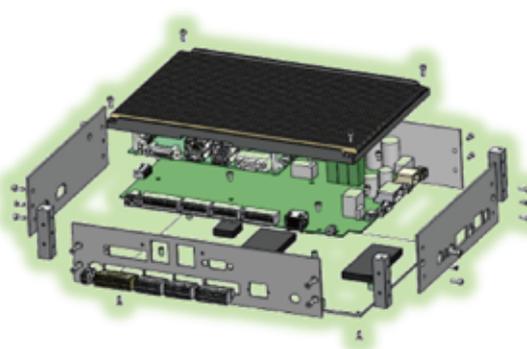


- 5-in-1* control box with extensive lifetime, lower risks of short circuits and wiring failures.
- New generation control box is 22.5% smaller and 30% lighter (Compared to previous generation).
- Improved EMC performance and IP54 protection with optimized cooling.

- * ■ Safety Control ■ Communication
 ■ Motor Braking ■ Input/Output
 ■ Power Management

Technical parameters	GCR3-618 GCR10-1300	GCR5-910 GCR12-1300	GCR7-910 GCR16-960	GCR16-2000 GCR25-1800	GCR20-1400 GCR30-1100
Input Power Supply	100-240VAC(47-63Hz) 10A			220-240VAC(47-63Hz) 10A 100-240VAC(47-63Hz) 16A	
IP Class	IP54				
Communication Interface	EtherCAT、Ethernet/IP、Modbus/TCP、CAN、TCP/IP、RS-485、Profinet、External Encoder、WIFI (Optional).				
I/O Interface	2AI/2AO, 4*SDI/3*SDO、16DI/16DO (PNP, 24V/Max 500mA), Among which 8DI/8DO can be configured				
Size	252x390x275mm				
Weight	10.5kg			10.6kg	

Independent Controller (DC00)



Technical parameters	
Size	252x173x67mm
Weight	2.5kg
Power Input	DC48V(42-59.2V) DC24V(22-26V)
Power Consumption	100W

Teach Pendant



Technical parameters	
Overall Dimension	300x196x99mm
IP Class	IP65
Screen Size	10.1 inches
Screen Resolution	1280*800@60Hz
Weight	1.1kg
USB port	●

GCR SERIES COBOT



Technical parameters	UNITS	GCR3-618	GCR5-910	GCR7-910	GCR10-1300	GCR12-1300
Max Payload	kg	3kg	5kg	7kg	10kg	12kg
Degree of Freedom		6	6	6	6	6
Max TCP Speed	m/s	2.4m/s	3.6m/s	3.2m/s	3.8m/s	3.8m/s
Max Straight-line Speed	m/s	0.8m/s	1.5m/s	1.5m/s	1.5m/s	1.5m/s
Reach	mm	618mm	917mm	917mm	1300mm	1300mm
Repeatability Accuracy	mm	±0.02mm	±0.02mm	±0.02mm	±0.03mm	±0.03mm
Joint	Range	Max Speed				
Wrist 1/2/3	±360°	°/s	225°/s	225°/s	225°/s	225°/s
Elbow	±360°	°/s	225°/s	225°/s	225°/s	225°/s
Shoulder	±360°	°/s	225°/s	225°/s	180°/s	180°/s
Base	±360°	°/s	225°/s	225°/s	180°/s	180°/s
Typical Power Consumption	W	200W	200W	200W	400W	500W
Robot Mounting		Ceiling / Floor / Wall / Inclined				
Robot Package Size	mm	532x431x330mm	698x588x450mm	698x588x450mm	958x508x516mm	958x508x516mm
Net/Gross Weight	kg	13kg/20kg	22kg/30kg	22kg/30kg	37.8kg/46kg	37.8kg/46kg



Technical parameters	UNITS	GCR16-960	GCR16-2000	GCR20-1400	GCR25-1800	GCR30-1100
Max Payload	kg	16kg	16kg	20kg	25kg	30kg
Degree of Freedom		6	6	6	6	6
Max TCP Speed	m/s	3.0m/s	3.5m/s	2.2m/s	2.5m/s	2.0m/s
Max Straight-line Speed	m/s	1.5m/s	1.8m/s	1.5m/s	1.5m/s	1.0m/s
Reach	mm	960mm	2000mm	1400mm	1800mm	1100mm
Repeatability Accuracy	mm	±0.03mm	±0.05mm	±0.05mm	±0.05mm	±0.05mm
Joint	Range	Max Speed				
Wrist 1/2/3	±360°	°/s	225°/s	225°/s	225°/s	225°/s
Elbow	±360°	°/s	225°/s	180°/s	150°/s	180°/s
Shoulder	±360°	°/s	180°/s	120°/s	100°/s	120°/s
Base	±360°	°/s	180°/s	120°/s	120°/s	120°/s
Typical Power Consumption	W	400W	600W	600W	600W	600W
Robot Mounting		Ceiling / Floor / Wall / Inclined				
Robot Package Size	mm	958x508x516mm	1465x516x472mm	1060x500x600mm	1295x540x515mm	1060x500x600mm
Net/Gross Weight	kg	37kg/45kg	60kg/68kg	66kg/75kg	61.6kg/70kg	64kg/75kg

Technical parameters	
IP Classification (IEC 60529: 2013)	IP54 (IP65/IP67 Optional)
Ambient Temperature Range	-10°C~50°C
Storage Temperature Range	-40°C~55°C
Cleanroom Level (ISO 14644-1)	ISO Class 5 (Class3 Optional)

IP Class

Dust tight -
No ingress
of dust 2 to
8 hours.



Resists
immersion
in water for
30 minutes
at 1 metre.

Cleanroom Level

class 3 — 1
class 4 — 10
class 5 — 100
class 6 — 1000
class 7 — 10000

END OF ARM TOOLING(EOAT) FLANGE

Integrated Direct Teaching Function:

Embedded T/S buttons for direct teaching function.

End I/O Port: 2DI, 2DO, EtherCAT, RS485

T-Direct Teaching

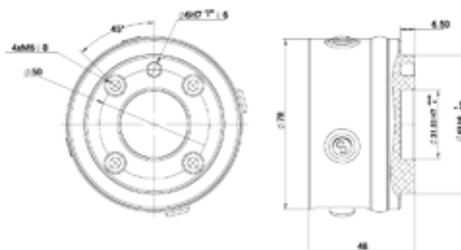
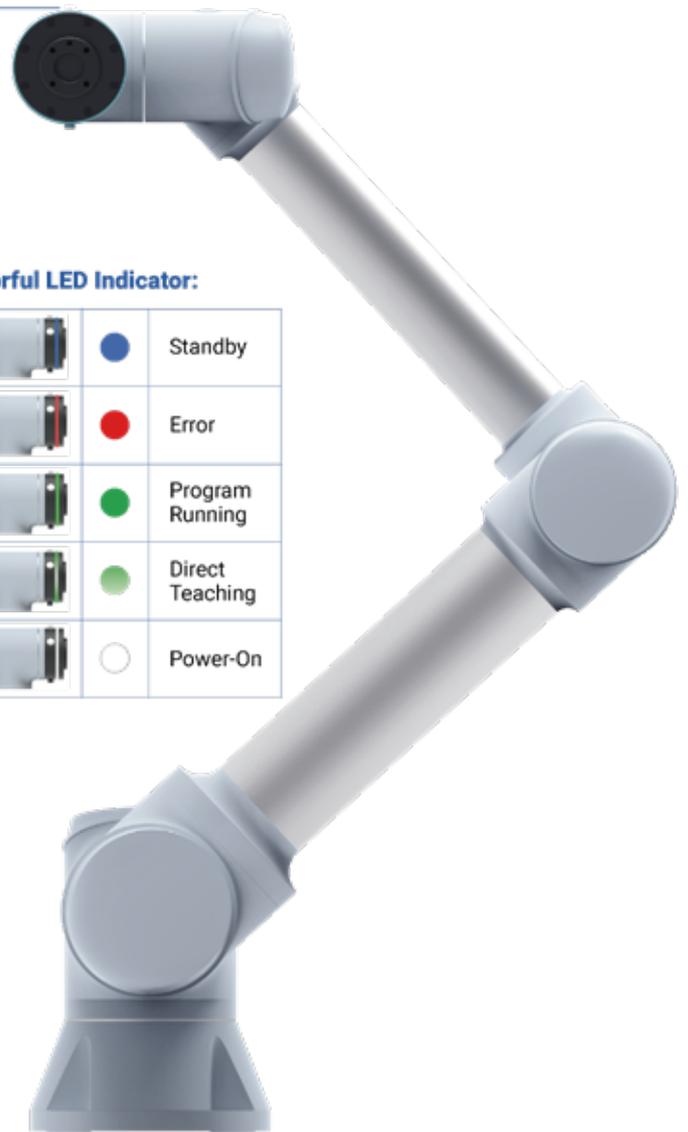
S-Save Points

High Ampere output for EOAT:

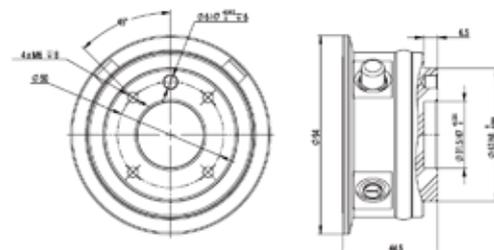
Standard 8-PIN 2DI/2DO RS485 connector (Single-Channel) up to 24V@500mA, 6-PIN EtherCAT connector up to 24V@250mA.

Colorful LED Indicator:

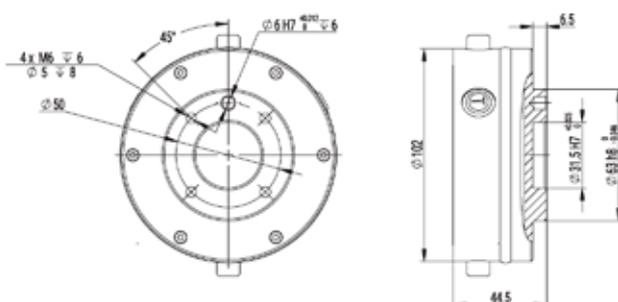
	Standby
	Error
	Program Running
	Direct Teaching
	Power-On



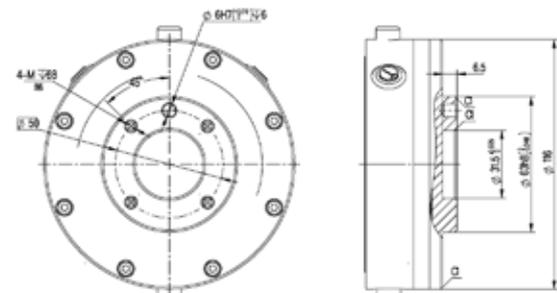
GCR3-618 / GCR5-910 / GCR7-910



GCR16-960 / GCR10-1300 / GCR12-1300 / GCR16-2000



GCR25-1800



GCR30-1100 / GCR20-1400

DUCO DM-CAM2.5D SMART CAMERA

Product Features

Rapid Deployment

Equipped with dedicated configuration software that is easy to learn and use, reducing deployment costs.

Cable-Free

Communication and power supply are achieved through the robot's end connector, eliminating the need for a cable package.

Automatic Calibration

Automatic hand-eye calibration is achieved through intelligent calibration algorithms.

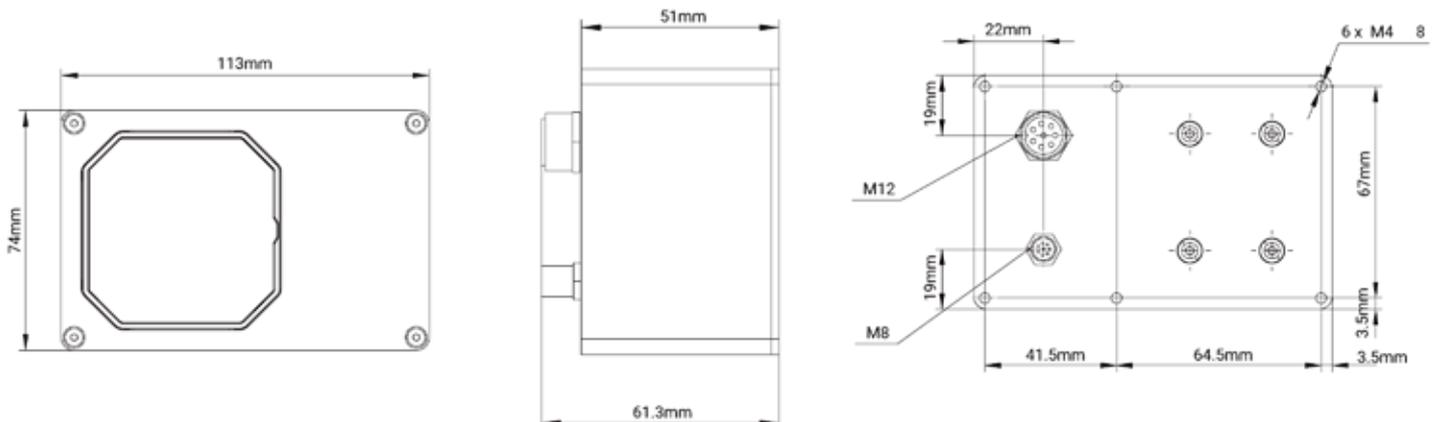
High Precision Positioning

High-precision 6-dof positioning correction is achieved by recognizing DM-Mark 2D markers.



Technical parameters			
Model	DM-CAM25D050GM16W2A	Working Field of View	200mm x 150mm @300mm
Sensor Type	CMOS, Global Shutter	Overall Positioning Error	Error <0.5mm when the distance from the captured point to the operating point is <500mm
Image Type	Mono		
Resolution	2368 x 1760	Power Supply	24 VDC
Focal Length	16mm, Motorized Focus	Power Consumption	Average 5W@24VDC, Peak 48W@24VDC
Light	White	Temperature	Operating: 0 ~ 50°C / Storage: -30 ~ 70°C
Lens Cover Type	Polarized Lens Cover	Humidity	20% ~ 95%RH (Without Condensation)
Communication Protocol	RS-485	Size	131 mm x 74 mm x 61.3 mm
Working Distance	200-400mm (Recommended 300mm)	Weight	560g

Product Size



STANDARD SOLUTIONS



DUCO Mobile Cobot



DUCO Explosion-proof Series



DUCO Coffee Cobot



DUCO Palletizing Solution



DUCO Welding Cobot

Force Sensor



Vision System



Electrical Gripper



Vacuum Gripper



Quick-Change



Simulation&Off-line Program



Fasten System



Dress Packs



Gateway&Expansion Module



Laser Scanner



Optical &3D Scanner



Welding Machine(China)



Welding Machine(Global)



Other

