

D-BOT

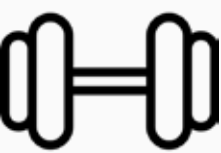
THE NEXT EVOLUTION
OF COLLABORATIVE ROBOTS



ENGINEERED FOR EXCELLENCE

D-Bots: Automation Made Accessible

Introducing the D-Bot range, engineered to seamlessly integrate advanced automation into your daily operations. Each D-bot excels in user-friendliness, robust safety features, and versatility, tackling diverse tasks across various industries effortlessly. They are the ideal choice for businesses eager to embrace automation with minimal technical skill or setup time.



Payload

6 - 30 kg



Reach

800 - 1800 mm



Speed

max. 2 - 4 m/s



Weight

26 - 95 kg



Repeatability

±0.02 mm



Safety

Pld Cat. 3 / SIL 3



Precision and Trust

Each D-Bot delivers unmatched precision and provides exacting accuracy in diverse applications, ensuring reliable outcomes that foster trust among users. The cobots are tailored to enhance operational efficiency, offering consistent performance and dependability that empowers businesses to innovate and grow with confidence.



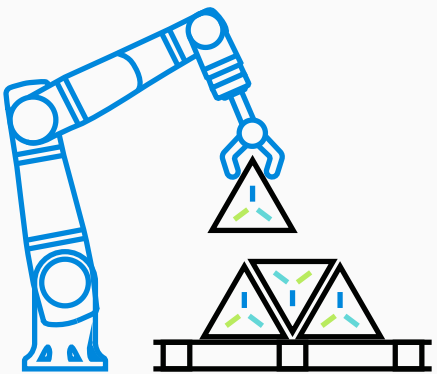
Tailored Precision for Every Industry

D-Bots combine robotic precision with human creativity to boost productivity and spur innovation across various fields, from pharmaceuticals to agriculture. Tailor-made for the unique challenges of diverse sectors, these smart, adaptable automation solutions transform obstacles into opportunities for growth.

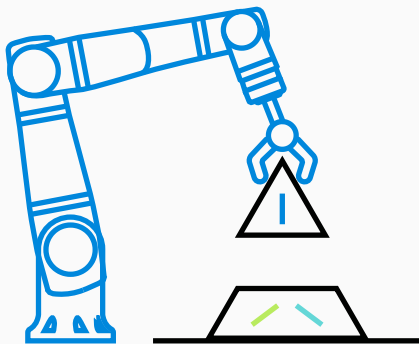


D-Bots Across Industries

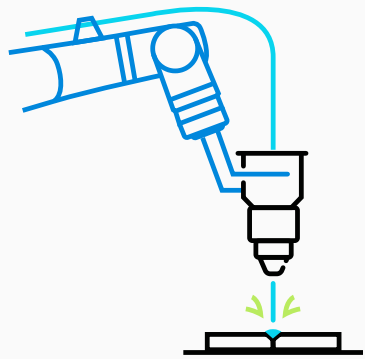
Collaborative robots, or cobots, are revolutionizing various industries by boosting efficiency and productivity. Designed to work alongside humans, they seamlessly blend manual labor with advanced automation, unlocking new levels of innovation and proving indispensable for a collaborative, futuristic workplace.



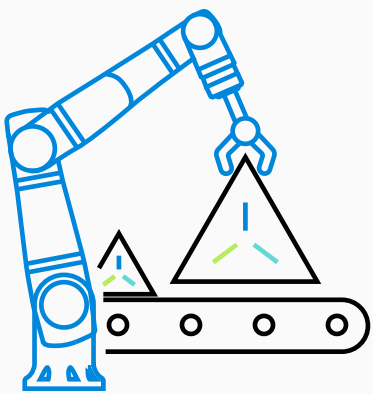
Assembly



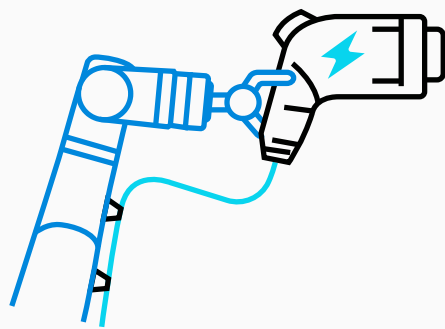
Packaging & Labeling



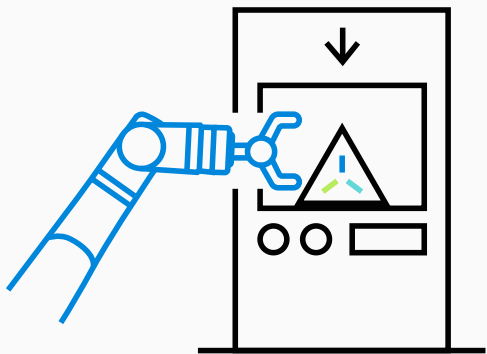
Welding



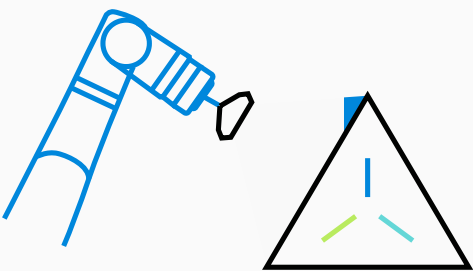
Material Handling



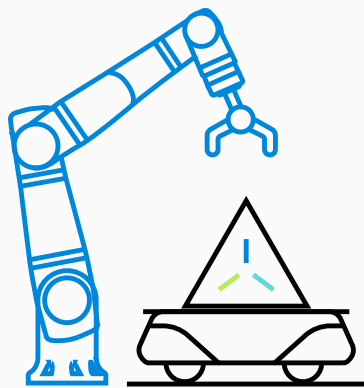
Charging



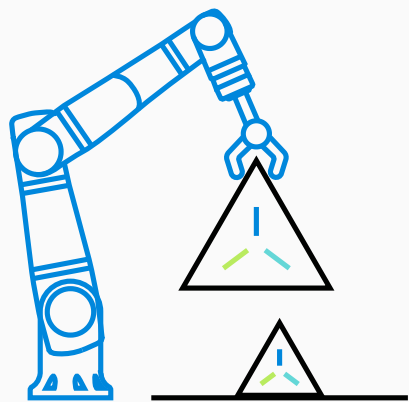
Machine Tending



Quality Inspection



Transportation



Dispensing





D-Bot Series

Technical Parameters

						
	DC06	DC08	DC10	DC16	DC20	DC30

Specifications

Payload	6 kg (13.3 lbs)	8 kg (17.7 lbs)	10 kg (22.1 lbs)	16 kg (35.3 lbs)	20 kg (44.1 lbs)	30 kg (66.2 lbs)
Reach	800 mm (31.5 in)	1300 mm (51.2 in)	1200 mm (47.3 in)	1600 mm (63 in)	1800 mm (70.1 in)	1300 mm (51.2 in)
Degrees of Freedom	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints	6 rotary joints

Environment & Safety

Ambient Temperature	Ambient temperature: 0° to 50°C (32° to 122°F)			Ambient temperature: 0° to 50°C (32° to 122°F)		
IP Classification	IP 66 water and dust protection			IP 66 water and dust protection		
Safety Rating	PLd Cat3. / SIL 3 (Safe position, speed, torque limits, I/Os)			PLd Cat3. / SIL 3 (Safe position, speed, torque limits, I/Os)		
Safety Functions	25 configurable safety functions			25 configurable safety functions		

Performance

Max. TCP Speed	2 m/s		4 m/s		3 m/s		4 m/s		4 m/s		4 m/s	
Pose Repeatability	±0.02 mm		±0.02 mm		±0.02 mm		±0.02 mm		±0.02 mm		±0.02 mm	
Axis Movement	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed	Working range	Maximum speed
Axis 1	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	120°/s	±360°	120°/s
Axis 2	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	180°/s	±360°	120°/s	±360°	120°/s
Axis 3	±120°	200°/s	±120°	200°/s	±120°	200°/s	±120°	200°/s	±120°	150°/s	±120°	150°/s
Axis 4	±150°	200°/s	±150°	200°/s	±150°	200°/s	±150°	200°/s	±150°	150°/s	±150°	150°/s
Axis 5	±360°	200°/s	±360°	200°/s	±360°	200°/s	±360°	200°/s	±360°	180°/s	±360°	180°/s
Axis 6	±360°	200°/s	±360°	200°/s	±360°	200°/s	±360°	200°/s	±360°	180°/s	±360°	180°/s

Interfaces & Programming

Interfaces at the Flange		I/Os Ports, MODBUS, RTU, 24V PSU				I/Os Ports, MODBUS, RTU, 24V PSU			
I/O Ports									
Digital in	3	3		3		3		3	
Digital out	3	3		3		3		3	
Analog	2	2		2		2		2	
Programming Interface		Drag & Drop, Python, ROS 1, C++ (low level)				Drag & Drop, Python, ROS 1, C++ (low level)			

Physical

Weight	26 kg (57.4 lbs)	48 kg (105.9 lbs)	45 kg (99.3 lbs)	60 kg (132.3 lbs)	88 kg (194.1 lbs)	95 kg (209.5 lbs)
Mounting	Omnidirectional, including table mounting, wall mounting, and ceiling mounting			Omnidirectional, including table mounting, wall mounting, and ceiling mounting		
Material	Aluminum, plastic, steel			Aluminum, plastic, steel		



Control Box

Dimensions	563 mm x 470 mm x 243 mm
Weight	20 kg (44.1 lbs)
Power Supply	100-240 VAC, 50/60 Hz, max. 1.5 kW
Interface	8x GPIO, Modbus, TCP, Ethernet IP, USB 3.0, Safe I/Os



Teach pendant

Dimensions	285 mm x 228 mm x 95 mm (11.4 in)
Resolution	2560 x 1600
Cable length	5 m (3.3 ft)

Built with Safety in Mind

The D-Bots are designed with advanced safety mechanisms that adjust or halt their operation when a person is nearby, dramatically lowering accident risks. This seamless safety integration allows for close human-robot collaboration without extra barriers, transforming D-Bots from mere tools into essential team members.



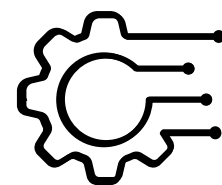
Collision Detection

D-Bots are engineered to detect contact with people or objects and instantly cease operation. This rapid response is vital for accident prevention, maintaining a secure workspace, and safeguarding both staff and equipment from damage.



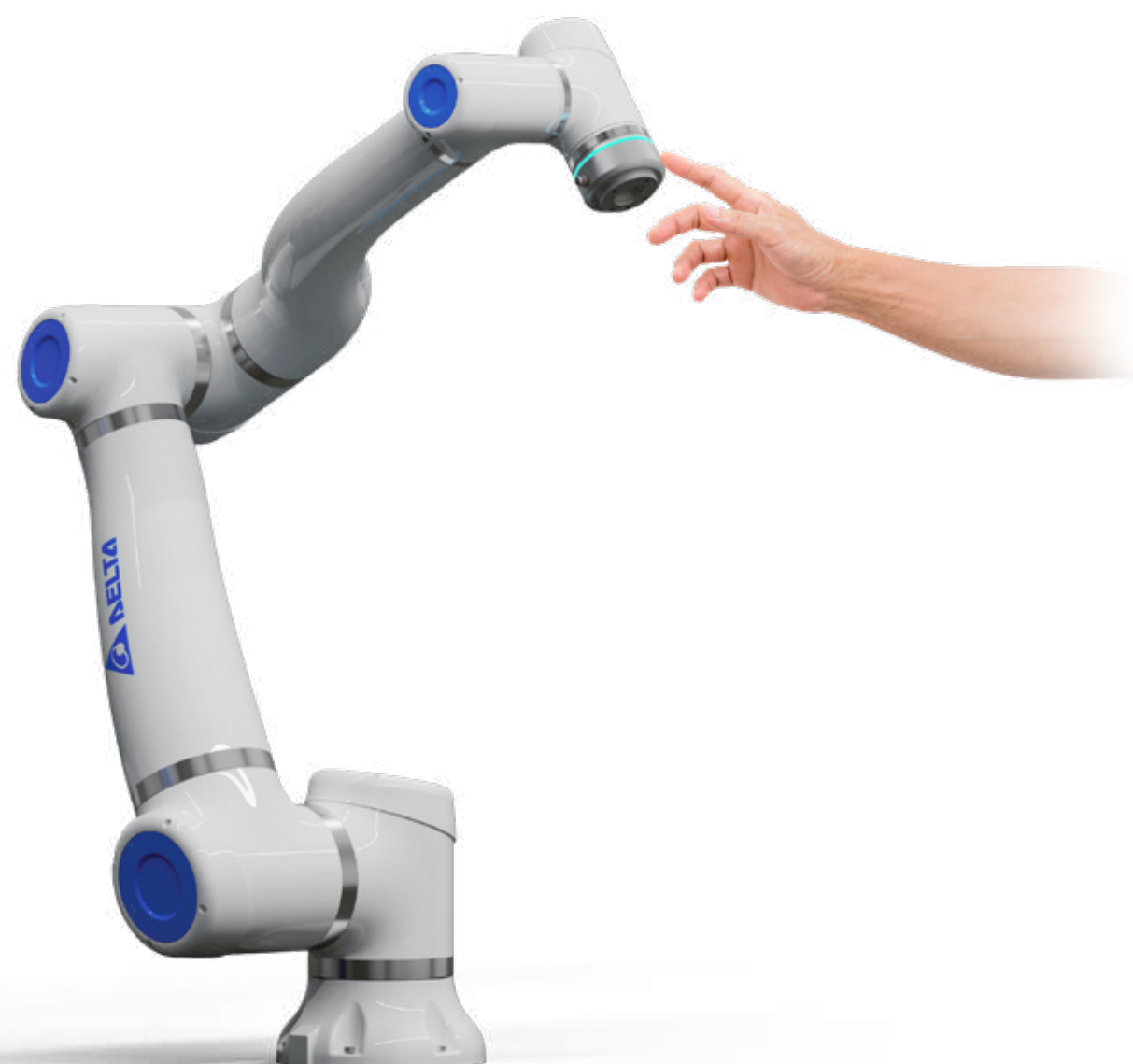
IP66 Certified

Cobots with IP66 certification are shielded from dust and resistant to strong water jets. This durable protection ensures peak performance in environments with dust or moisture, greatly minimizing downtime and lowering maintenance requirements.



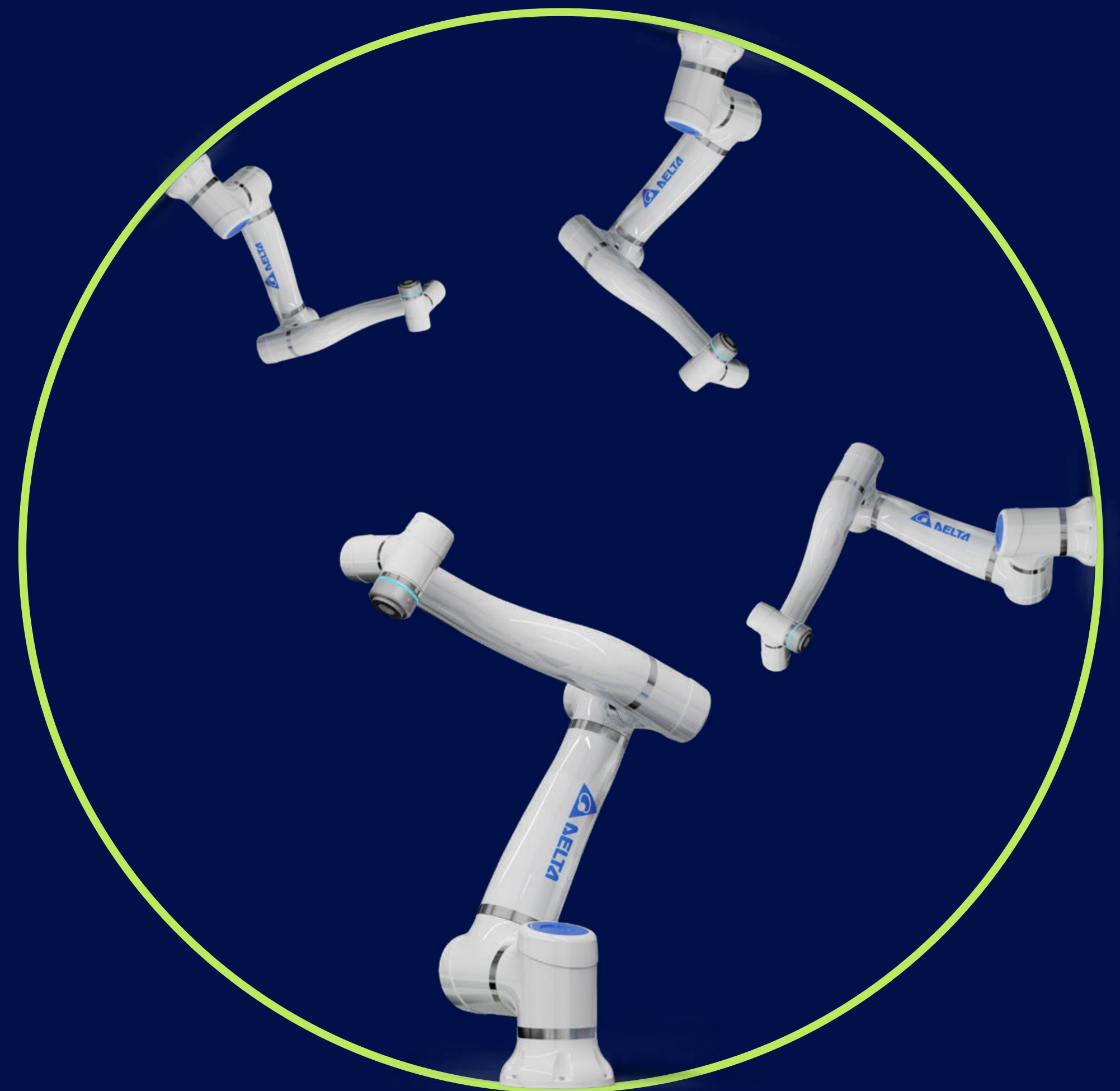
Adjustable Speed Settings

D-Bots are equipped with adjustable speed settings that can be tailored to specific tasks and environments. By controlling the speed, operators can ensure that the cobot operates safely, particularly when human interaction is frequent.



Omnidirectional Mounting

Our Cobots have versatile mounting capabilities, allowing them to be installed in any orientation, be it upright, sideways, or even overhead. This flexibility maximizes space efficiency and adapts seamlessly to various operational layouts. With no mounting limitations, these cobots fit perfectly into any workspace, enhancing workflow and productivity.



From Box to Bot in 3 Hours

D-Bots are engineered for quick and easy deployment. The efficient assembly process gets your automation capabilities online faster, reducing the time from installation to operation. Straightforward guidance and user-friendly design allow for a seamless transition into your daily processes, enhancing productivity with minimal delay.



D-Bot Teach Pendant & Control Unit

Our cobots come equipped with an advanced tech pendant that simplifies programming and operation, making it accessible even to those new to robotics. The control unit offers real-time adjustments and easy access to all cobot functions. This user-friendly interface ensures that managing your cobot's activities is straightforward and efficient.

Teach pendant

The Teach Pendant features a user-friendly touchscreen that simplifies programming and control of cobots. Its ergonomic design and customizable settings enhance operational flexibility and efficiency, allowing for easy adjustments and real-time troubleshooting directly from the production floor.

- 11.4-inch touchscreen
- GUI with 3D visualization
- 'Plug & Play'
- Pre-installed apps
- 'Drag & Drop' function
- Dynamic path & force recording with the Hand Guiding Mode



Control Box

The Control Box serves as the central hub for the D-Bot operations, offering a robust, secure interface that integrates seamlessly with existing systems. It features advanced security, durable design, and easy mounting, ensuring reliable and smooth operations in various industrial settings.

- Compact Design
- Flexible Connectivity Options
- Advanced Safety Features
- Energy Efficiency
- Robust Construction
- Universal Compatibility



Delta Electronics

Since 1971, Delta has been at the forefront of developing energy-efficient solutions that meet today's environmental challenges. With a global presence and a strong commitment to R&D, Delta continues to lead in creating technologies that enhance sustainability and drive industry progress.

Delta Electronics, established in 1971, has grown to become a leading global provider of power and thermal management solutions, embodying its mission to forge a better tomorrow through innovative, clean, and energy-efficient solutions. With a keen focus on addressing pivotal environmental challenges, including global climate change, Delta harnesses its expertise in power electronics and automation to offer cutting-edge solutions across Power Electronics, Mobility, Automation, and Infrastructure sectors.

Renowned for delivering some of the industry's most energy-efficient power products, Delta boasts achievements such as switching power supplies with over 90% efficiency, telecom power systems reaching up to 98%, and PV inverters that achieve up to 99.2% efficiency. Notably, Delta pioneered the world's first server power supply to receive the 80 Plus Titanium certification, setting a new benchmark for energy efficiency.

With its global headquarters in Taiwan, Delta invests more than 8% of its annual sales revenue into research and development, maintaining R&D facilities across China, Europe, Japan, Singapore, Thailand, and the U.S. This commitment to innovation is a testament to Delta's dedication to sustainability and technological advancement.

Delta's excellence has been recognized worldwide, earning numerous awards for innovation, design, and its unwavering commitment to Environmental, Social, and Governance (ESG) principles. Highlighting its sustainability efforts, Delta has been featured on the Dow Jones Sustainability™ Indices World Index for 13 consecutive years since 2011 and has thrice been awarded a double A List rating by CDP for its significant contributions to combating climate change and enhancing water security. Furthermore, for seven consecutive years, Delta has been recognized as a Supplier Engagement Leader, underscoring its dedication to fostering a sustainable value chain.

In the face of climate change, Delta remains steadfast in its commitment to the continuous development of innovative, energy-saving products, solutions, and services. This dedication not only underscores Delta's role in promoting sustainable development but also reinforces its vision of contributing meaningfully to the welfare of mankind. Delta's journey is one of innovation, sustainability, and leadership, as it continues to set industry standards and push the boundaries of what is possible for a sustainable future.

As we navigate towards a sustainable future, Delta invites you to join us in our mission to innovate for a cleaner, more efficient world. Discover how our solutions can transform your business and contribute to global environmental sustainability.

Let's build a better future together with cutting-edge D-Bot technology.



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