



DOOSAN ROBOT A-SERIES



Doosan Robotics

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Doosan Robotics



Almighty A-SERIES

A-SERIES can go anywhere!
With its superior speed and cost-effectiveness,
A-SERIES promises a simple solution and a satisfaction to whom may be hesitant to get a cobot

A0509

Payload 5kg
Reach 900mm

A0912

Payload 9kg
Reach 1200mm

A0509s

Payload 5kg
Reach 900mm

Model
with
Force
Sensor

A0912s

Payload 9kg
Reach 1200mm

Model
with
Force
Sensor

A-SERIES KEY FEATURES

A+ Safety

The advanced safety algorithm ensures the safety beyond the limits of current-based collision detection technology

**PL e
Cat 4**

Proven by the highest international safety level*, trustful safe work environment is ensured

*Performance Level
Emergency Stop, Safe Torque Off (STO), and Safe Brake Control (SBC)

A+ Customization

Customers have a choice of High-tech force sensor model for more delicate tasks requiring human like dexterity

×2

Force control accuracy of FTS (Force Torque Sensor) is twice as high as competitors, ensuring higher performance and outcome

A+ Speed

The high-end hardware, created by Doosan's world class technology, promises quick and flawless performance on any task with the highest speed in the industry along with the remarkable acceleration

×2

Twice faster joint speed enhances productivity, efficiency and effectiveness on any tasks

A+ ROI

Reduced cycle time and excellent cost-effectiveness promises the shortest time for your ROI

10%

10% faster work speed on average combined with competitive price shortens your ROI period



MAIN APPLICATIONS



Scan the QR Code
for more Doosan Robot
Applications



Machine Tending

Feed the CNC machine and load/unload the subject into the pallet



Pick & Place

Simple loading/unloading work such as moving objects between tasks



Packaging

Quick product packaging and transporting tasks in electronic, material handling and plastic industry



Inspection

Inspecting internal /external defects and assembly quality



Air Blowing

Exterior cleaning of finished products or workpieces with spiral spray motion and multi-angle composite spray motion



Gluing and Bonding

Spraying of consistent amount of adhesive for gluing and bonding



Polishing & Deburring

Burr removal and surface polishing after processing

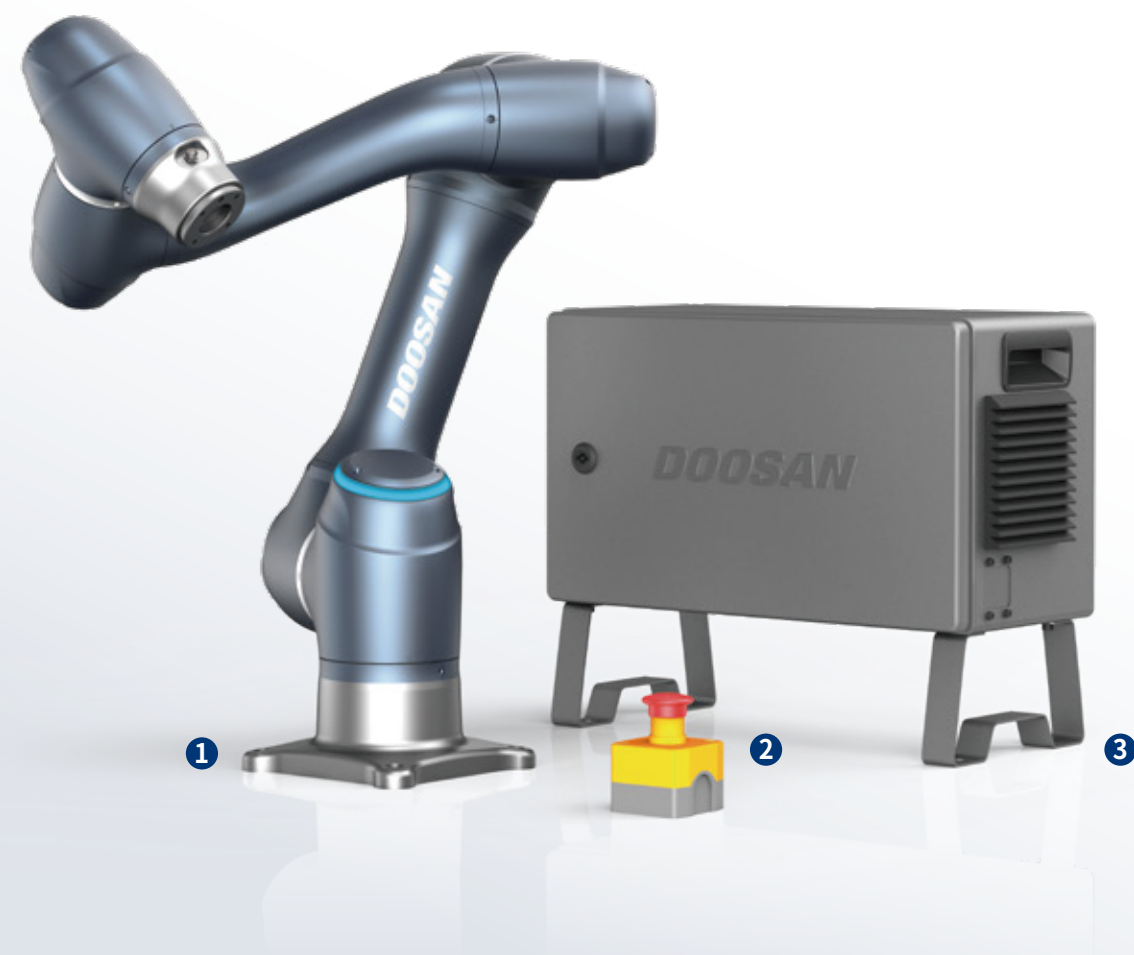


Assembly

Traditional assembly tasks like screw driving and gear assembling

A-SERIES : ROBOT SYSTEM

Experience the best robot system with stable and immaculate controllability



01 Robot Arm

Our six-axis multi-joint robot arm maintains excellent stability with overwhelming speed and an advanced safety algorithm

02 Emergency Stop Button

The safety button can halt the robot in an emergency situation to prevent accidents

03 Controller

The solid control platform guarantees stable performance in any field based on real-time control and high-speed communication technology

DART Platform

DART Platform, the Doosan Robotics user software, enables robot teaching along with the wide range of programming actions on a PC environment

A separate PC is required for installation and use of the DART platform



OPTIONS



OPTION 01 Smart Pendant

A simple interface with commonly used function buttons including Home Position, Servo ON/OFF and Start/Stop for easy controlling

If Smart Pendant is installed, a separate PC is required to run the DART Platform



OPTION 02 Teach Pendant

Offers tablet PC-like ease of use, and with the inclusion of the DART Platform, it is capable of configuring various applications, from simple programming up to advanced control algorithms

DOOSAN HERITAGE

Super
SAFE



• **Five workspace settings to fully protect the operator**

Five workspace settings protect the operator’s safety and improve work efficiency.

- Collaborate zone
- Collision detection mute zone
- Protected zone
- Limited tool Orientation zone
- Customized collision sensitivity zone

• **Outstanding product safety certified by international organizations**

Doosan robots have received prestigious safety certifications worldwide as well as safety certifications from NRTL in the U.S., CE in Europe and KCs in Korea.

Super
EASY



• **One-touch programming in just 20 seconds**

Doosan robots automatically recognize attached peripherals and suggest ideal work process in forms of various templates from simple material handling to machine tending. It also provides pre-programed skills, commonly used in the field, which makes it very easy to teach the robot even for beginners.

• **Cockpit to quickly and easily teach robots**

Through the cockpit (Direct teaching button) on Doosan robots, it is possible to select various teaching modes as well as to save coordinates with simple button operations, allowing easy direct teaching.

Super
FLEXIBLE



• **Doosan Mate maximizing the utilization of Doosan robots**

Doosan Mate is comprised of a variety of industry-leading partner products from grippers to electric tools machines, sensors and software, providing the best automation solutions optimized for customer needs. All registered products are highly compatible with Doosan robots, allowing easy and fast set-up and immediate operation.

• **Convenient communication connections**

Doosan robots support the latest communication technologies, even without a gateway, allowing seamless connections with various types of industrial equipment and systems.

*Supported Communications: RS232/485, TCP/IP, Modbus TCP (Master/Slave), Modbus RTU (Master), PROFINET IO Device, EtherNet/IP Adapter

DOOSAN ROBOT LINE-UP

Almighty
A-SERIES

A0509 · A0509s · A0912 · A0912s

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High-Power
H-SERIES

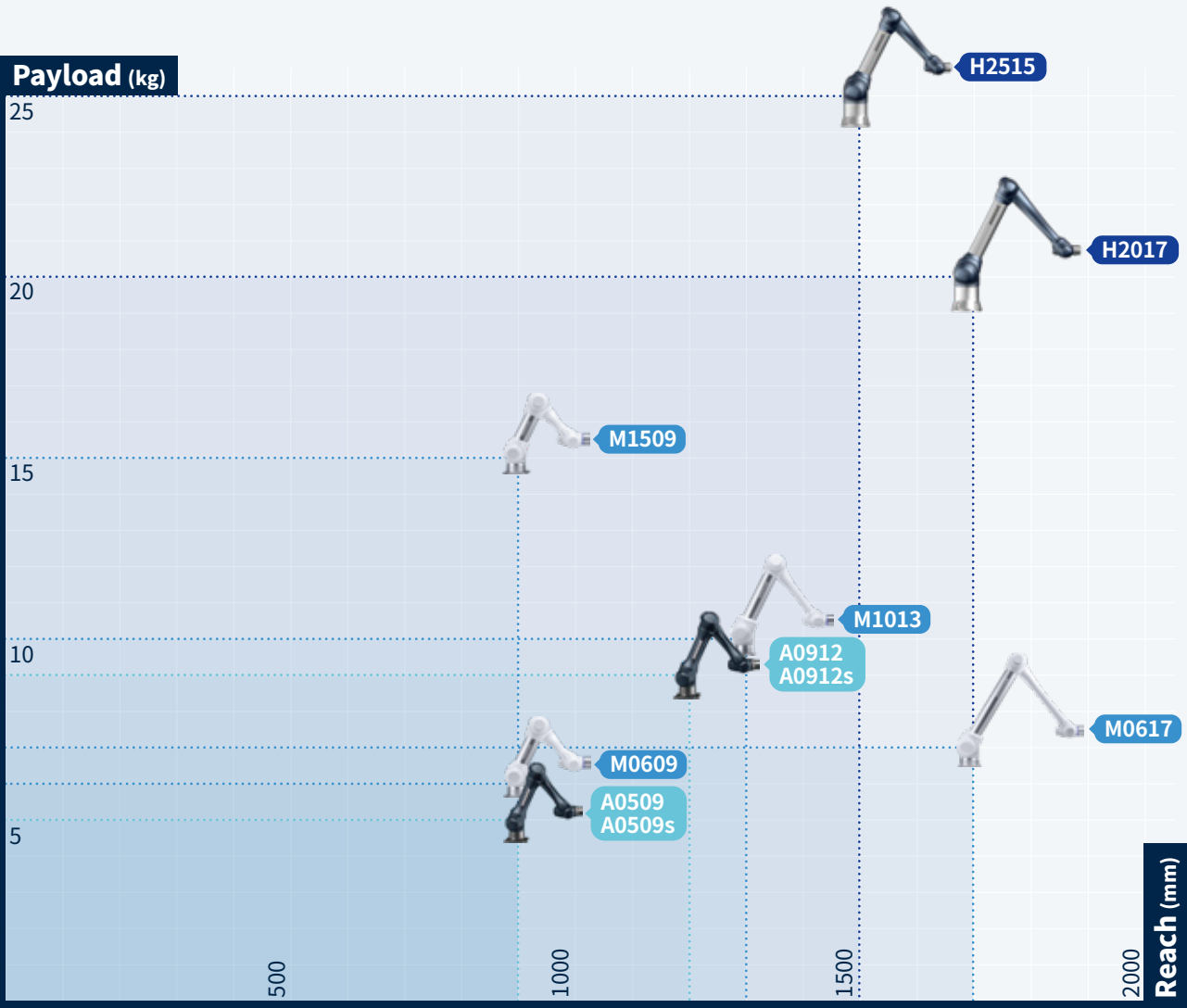
H2017 · H2515

H-SERIES is the most powerful cobot in the market. Outstanding 25kg payload and 6 torque sensors brings safe work environment for any kind of application

Masterpiece
M-SERIES

M0609 · M0617 · M1013 · M1509

M-SERIES is the highest quality premium cobot! 6 high-tech torque sensors provide the highest dexterity for highly sophisticated tasks and ensure the upmost safety with the highest collision sensitivity



A-SERIES TECHNICAL SPECIFICATION

		A0509 / A0509s	A0912 / A0912s
Arm	Payload	5 kg (11 lb)	9 kg (19.8 lb)
	Reach	900 mm (35.4 inch)	1,200 mm (47.2 inch)
	Weight	21 kg (46.2 lb)	31 kg (68.3 lb)
	Performance		
	Tool Speed	1 m/s	1 m/s
	Repeatability	±0.03 mm	±0.05 mm
	Temperature	0~45 °C	0~45 °C
	Joint Movement (Range : ° / Max Speed : °/s)		
	J1	±360° / 180°/s	±360° / 180°/s
	J2	±360° / 180°/s	±360° / 180°/s
Controller	J3	±160° / 180°/s	±160° / 180°/s
	J4	±360° / 360°/s	±360° / 360°/s
	J5	±360° / 360°/s	±360° / 360°/s
	J6	±360° / 360°/s	±360° / 360°/s
	Other Features		
	Installation Position	Any (Floor / Ceiling / Wall)	
	Protection Rating	IP 54	
	Flange Interfaces	Digital I/O 2 In / 2 Out, RS 485* *For pseudo serial communication, refer to the Programming Manual for more details	
	I/O Power Supply	DC 24 V / Max. 3 A	
	FTS(6-axis)	Force 110 N/ Moment 11 Nm (Option)	
Teach Pendant (Option)	Interfaces	USB 3.0 (RS422/485**), TCP/IP **Requires a USB to RS422/485 converter	
	Industrial Network***	Modbus-TCP (Master/Slave) / Modbus-RTU (Master) / EtherNet/IP (Adapter) / PROFINET IO (Device) ***Install a gateway for other communication support	
	Dimensions	450 x 210 x 265 mm + Stand 110 mm	
	Weight	13 kg	
	Protection Rating	IP 40	
	I/O Port - Digital I/O	16 / 16	
	I/O Port - Analog I/O	2 / 2	
	I/O Power Supply	DC 24 V	
	Reated Supply Voltage	100~240 VAC, 50~60Hz	
	Manipulator Cable Length	6.0 m	
Smart Pendant (Option)	Protection Rating	IP 40	
	Dimensions	180 x 90 x 26.5 mm	
	Weight	0.3 kg (Without cable)	
	Cable Length	6.0 m	

GLOBAL NETWORK

Doosan Robotics continues to expand its global network around the world!
Prompt service is available around the globe through dealer networks established in different countries



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- www.linkedin.com/company/doosan-robotics
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Applications

