

Robot

Articulated Robot DRV

Automation for
Smart Manufacturing



	DRV70L	DRV90	DRVA1/A4L7	DRVA41/A4LC New
Max. Working Range	710 mm	900 mm	1,111/1,411 mm	1,183/1,419 mm
Max. Payload	7 kg	7 kg	7 kg	12 kg
IP Rating	IP40, IP65	IP40, IP65	IP65	IP54 (wrist IP65)

Hollow-Wrist Design

- No Hollow Design

Tangled wire/cords
lead to equipment
interference



- Hollow Design

Enhanced
reliability of
extension
wire/cords



High Flexibility/ Multiple Installations

- Max. working range:
710 mm ~ 1,411 mm enhances
manufacturing flexibility
- Desk-mount / wall-mount /
ceiling-mount installation
fulfills various application
needs



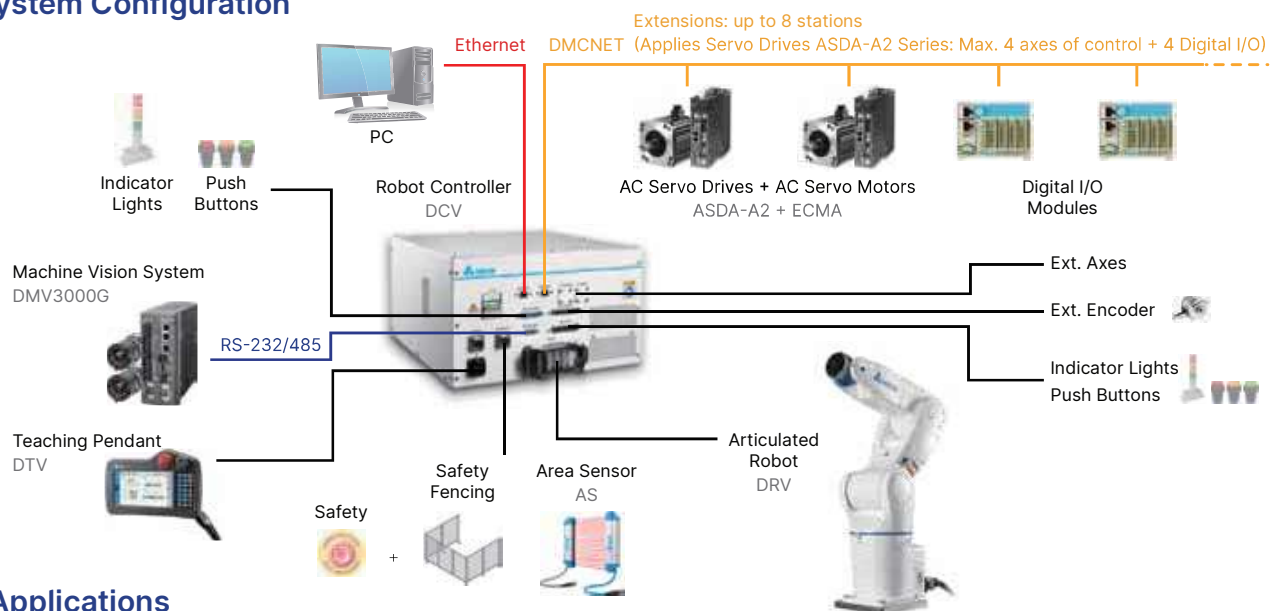
Simple and User-Friendly Operation Interface

- DRAS**tudio Robotic Automation
Studio software system
- Intuitive user interface
 - Real-time equipment data
 - Dynamic-link library
 - Self-defined user I/O
 - Optimized parameters

- Complete tuning
function
- Easy backup with
one click



System Configuration



Applications

Pick-and-place, Load /unload, Assembly, Insertion, Inspection, Screw-driving

SCARA Robot DRS

High Repeatability, High Precision, Outstanding Linearity and Verticality



Max. Working Range: 800/1,000 mm
Max. Payload: 22 kg



Max. Working Range: 300 ~ 800 mm
Max. Payload: 3/6/12 kg



DRS80/AOLM New	DRS40/60/80L Series		
	Standard Model		Special Model
	Arm Length	Payload	
• Cycle time: 0.42 s/0.45 s (2 kg)			
• Repeatability:			
±0.025 mm (J1+J2)	• 300 ~ 600 mm	• 3 kg • 10 kg	• Number of Axis: 3 axis/5 axis/ceiling mounted
±0.01 mm (J3)	• 500 ~ 700 mm	• 6 kg • 12 kg	• Arm length: 600 mm
±0.01° (R axis)	• 600 ~ 800 mm		

Optimizes Operational Efficiency

- Safe operation, enhances operational stability
- Outstanding dynamic display for operational efficiency and intelligent control
- Smart temperature control, real-time control of working environment

Intuitive Teaching Methods with Versatile Control Approaches



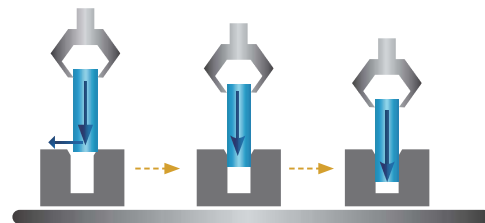
On-the-Fly & Conveyor Tracking

- Easy and flexible conveyor tracking
- User-friendly template guidance
- On-the-fly function provides outstanding positioning to shorten cycle time and enhance productivity
- Integrates with Delta's IA products for a total solution



Sensor-Less Compliance Control Function

- Compensates for the deviation between workpieces and insertion holes
- Fast and precise smooth insertion
- Enhances assembly and production performance
- Insertion performance may differ depending on workpiece hardness



Real-Time Information Monitoring and Collection

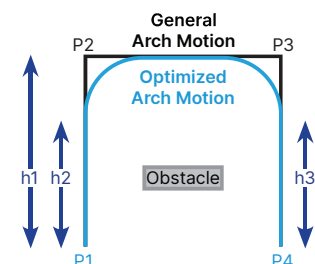
- Robot machine data monitoring and analysis
- Oversees real-time machine operation data
- On-site production information acquisition



Equipment IoT Platform
DIA Link

Arch Motion Control

- Route optimization
- Saves motion time
- Quick and easy setting
- Optimizes arch route setting, fast operational speed
- Prevents crash when near the top or edge of robot route planning



Robot

Robotic Simulation Platform

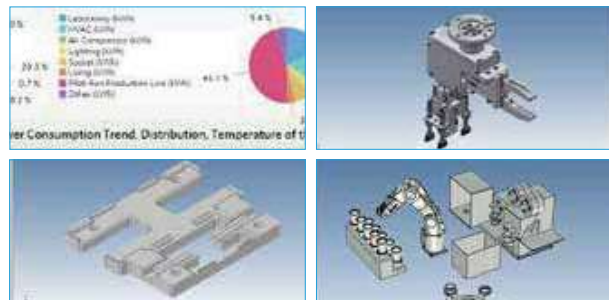
DRASimuCAD

One Software Provides Workstation Design, Simulation and Operation Path Generation, Saving Setup Time and Boosting Introduction Efficiency

- Simulates the actual workflow and operation environment, allowing real 3D models to be imported to pre-assess the rationality of the robot and peripheral equipment settings
- Pre-inspects robot abnormalities, detects collision and operation range limitations, saving teaching time and reducing errors when introducing the robot into applications
- Auto-generates path simulation and creates robot project for fast workflow design and programming to enhance efficiency

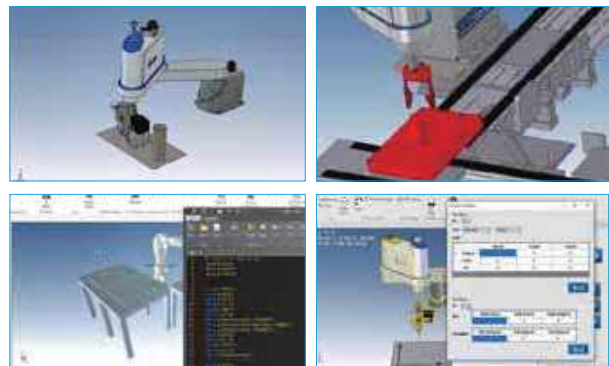
Modeling (CAD)

- Complete 3D CAD design capabilities
- Built-in Parasolid and ACIS Dual-Core for mainstream CAD formats support, resolving the splitting image issue when importing/exporting image files
- Built-in robot, tool and application device library for easy drag and drop; preset actions links for fast simulation system establishment



Virtual Robot Simulation

- Collision Detection
 - Predicts any collision under operation
 - Pre-inspects the operation range settings to eliminate repeated modification
- Offline Programming
 - Direct robot programming in robot language (RL)
 - Same interface with DRASstudio, allowing teaching points, setting coordinate system (user frame/tool frame) and creating a robot project



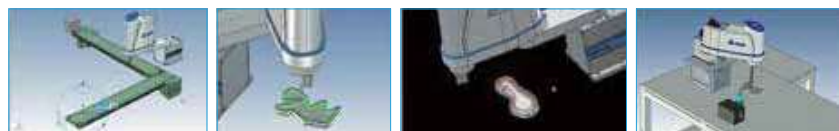
Path Generating (CAM)

- Auto-generates processing path and is combined with visual features for fast simulation



Applications

Conveyor belt dynamic processing simulation, Deburring, Sole gluing, Remote TCP



Smart Screwdriving System

Transducerized Smart Screwdriver ECM-SD3

- » High-resolution position feedback encoder
- » High precision torque sensor signals directly fed to the full closed-loop control
- » Low cogging torque of the AC servo motor
- Indicator light signals screwing status
- Front LED light eliminates shading during operation
- Easily mounted on robots and equipment with a coupling



10 Smart System

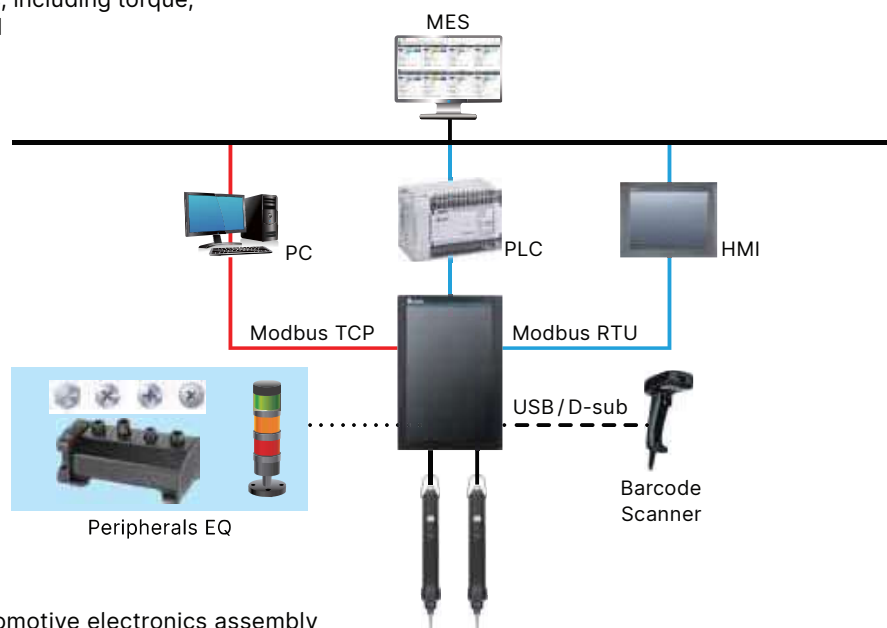
Smart Screwdriving Controller ASD-SD3

- » Dual-spindle control for higher efficiency
- » Enables dual-spindle synchronization and separate operation
- 10.1 inch large screen displays the results of both drivers at a time
- Large memory capacity stores more than 20,000 results

System Features

- Controls two screwdrivers with just one controller
- Stores up to 500 sets of model configurations and 500 screw parameters
- Manufacturing data can be retained at a local machine or uploaded to a manufacturing execution system
- Provides multiple control modes, including torque, angle and seating points control
- Sets two screwdrivers to operate synchronously or at different intervals to meet different needs
- Analyzes defects causes such as stripping, or tilted screws to continually optimize quality
- Ensures implementing the correct screwdriver and processes in operation to prevent resource waste and enhance yield rate

System Structure



Applications

Electronic product assembly, Automotive electronics assembly