

DENSO Robotic Systems

DENSO Robotics is a leader in the field of manufacturing automation, and have been developing and manufacturing of industrial robot arms since the 1960s. In addition to robotics development, DENSO is also one of the world's largest automotive parts manufacturers and user of small assembly robots. As a manufacturer and end user, DENSO is in a unique position to create robotic systems that meet all of the rigorous requirements of industry.

DENSO uses more than 16,000 small industrial robots in their own facilities, and over 60,000 DENSO robotic systems are used by their customers around the world. All of the DENSO robotic products, including four-axis SCARA robots and five- and six-axis articulated robots, are available in models to support clean room requirements, making them ideal for pharmaceutical applications. In addition, DENSO products are certified for world-wide distribution, giving companies with international presence the ability to standardize their equipment.

DENSO 4-axis SCARA Robots

DENSO manufactures a variety of Selective Compliant Articulated Robot Arm, or SCARA products. These robotic arms are optimal for pick and place applications and provide high accuracy and repeatability. Both the HS and HM series can support a variety of end effectors and have loading capacities of 5 20 kg. The HS series has better accuracy, but the HM series has a longer reach capacity. These 4-axis robots are often combined with vision and lighting systems for inspection and packaging applications, where orientation is important.

DENSO 5- and 6-axis Articulated Robots

The VP series is available in both 5- and 6-axis versions, and have a small footprint, allowing them to be installed in nearly any workspace. The VP series also provides the highest speed in its class. The VS series is a mid-ranged 6-axis robotic arm that provides speed, load capacity, and repeatability. The VM series of 6-axis robotic arms are designed for long reach and maneuverability around tooling. The maximum allowable moment of inertia for all 5- and 6-axis DENSO robots is significantly higher than conventional robots, enabling greater flexibility in end-effector designs and a wider range of applications.

DENSO 5- and 6-axis Articulated Robots

To support their robotics systems, DENSO offers the RC7 controller, which is compatible with all of their robot arms. Each controller can handle up to 8 axes, so it can control one arm plus vision and conveyor systems. DENSO also manufactures teach pendants in a 7.5" touch



screen size and in a smaller handheld size. Each teach pendant has a customizable display and a large deadman switch, as well as a jog dial and other convenience features. The pendant includes functions for writing & editing, parameter setting, robot movement operation, program start, teach-check mode, I/O manager, variable manager, maintenance, communication settings, and error display.

CIMTEC has the personnel and knowledge for assisting in the implementation of DENSO SCARA Robot solutions. Using industry leading products by such companies such as Cognex and DENSO Robotics, CIMTEC can offer vision-guided robotic solutions amongst other high in-demand solutions.