

ROBOTIC AUTOMATION



 **AUTOLINE**

ROBOTICS • AUTOMATION • CONVEYORS



We are the Robotic, Automation and Conveyor Experts.

Autoline began over 30 years ago selling press feeder and bowl feeding solutions to the manufacturing industry. As we grew, we introduced New Zealand to aluminium T-slot extrusion and used the aluminium profile to build conveyors and automation systems. We continued to expand and established ourselves as New Zealand's leading automation company 'Conveying Excellence' in what we designed and manufactured and our customer experience.

With a progressive development approach to bringing the very best of automation to New Zealand industries, we branched out into robotics with the acquisition of Carbines Engineering, New Zealand's leading robotics integrator with over 35 years of experience in the industry. Today we continue to lead as the Robotic, Automation and Conveyor Experts, bringing the latest technology and innovations to New Zealand.

Advantages of Robotic Automation.

When jobs are dangerous, dull, dirty and repetitive, robotic automation provides great advantages. Typical results from robotic automation are; increased productivity from your labour force, increased workplace safety due to manual handling processes being carried out automatically, and increased quality by robotic automation manufacturing to exact specifications ensuring high-quality results every time. Plus, reduction in waste, consumables and rework through consistency and increased profitability giving you a competitive edge in your industry.

New Zealand Distributors For World Leading Robot Brands:

YASKAWA



DOOSAN



Highest Quality Coupled with Outstanding Performance.

With a full range of robots from 0.5kg to 900kg payloads, Yaskawa makes the applications for robotics endless. Yaskawa Motoman offers exceptional products and components – including turnkey integrated work cells and completely customised automation solutions delivering unparalleled efficiency, quality, consistency, and productivity.

Key Features:

- Full line of robot models, including 4-,5-,6-,7- and 15- axis; payload capacities up to 900kg.
- Diverse, highly precise positioners including rotary and H-frame turntables, ferris wheels, headstocks/tailstocks, multi-axis, rails, tracks and more.
- Specialised industrial drives and a wide range of powerful controllers.
- Each model is compatible with one or more controller models, enabling you to program and control tasks of a single robot or coordinate multiple robots.
- Options of supporting software's to plan, program and optimise and maintain your solution.



Yaskawa Robot Applications:

- Pick and Place
- Mounting
- Painting
- Packaging
- Welding
- Cutting
- Collaborative Robots
- Palletising/Depalletising
- Handling & Assembly

Yaskawa Motoman Robot Controller

The Motoman YRC1000 is a compact, fast, and flexible controller for Motoman robots that combines high-performance robot control in a small footprint cabinet with a volume of 125 litres and a maximum weight of 70 kg.

The controller has optimum path accuracy, ensuring precision in trajectory performance even with its high motion speed.

The interface supports smartphone like touch operations and allows the user to 3D simulate robots motion on PP screen before and during execution of the real robot arm.

Key Features:

- Compact, fast and flexible
- Global standardization (no transformer required)
- High path accuracy



Doosan Collaborative Robots



The Ideal Automation Partner for Human-Robot Collaboration.

Doosan Robotics is a leading manufacturer of collaborative robots (cobots), which are robots designed to work side by side with humans, without safety fencing. This allows human workers and robots to perform their tasks in the most efficient way, therefore increasing productivity. Doosan's collaborative robots have unique features not found in any other cobot brands!



Key Features:

- 6-axis articulated robot with top class force sensitivity and collision detection.
- Outstanding safety and precise operation by 6 joint torque sensors.
- Most optimal solution of collaborative robots with diversified work payload capacity and reach of product lineup.

Master M Series

M Series is the highest quality premium cobot! 6 high-tech torque sensors provide the highest dexterity for highly sophisticated tasks and ensure the highest safety with the highest collision sensitivity. A world-class cobot.

M Series Models:

- **M0609** - 6kg payload, 900mm reach
- **M1013** - 10kg payload, 1300mm reach
- **M0617** - 6kg payload, 1700mm reach
- **M1509** - 15kg payload, 900mm reach



Almighty A Series

Superior speed, safety, reliability and flexibility in model choice, an ideal solution to start automating. The A-Series promises a simple, compact, yet powerful solution.

A Series Models:

- **A0509** - 5kg payload, 900mm reach
- **A0509S** - 5kg payload, 900mm reach, (force sensor)
- **A0912** - 9kg payload, 1200mm reach
- **A0912S** - 9kg payload, 1200mm reach, (force sensor)



High Powered H Series

The H-Series is the most powerful cobot in the industry. With an excellent payload of up to 25kg and the 6 powerful force torque sensors ensure a safe working environment for every application.

H Series Models:

- **H2017** - 20kg payload, 1700mm reach
- **H2515** - 25kg payload, 1500mm reach



OTC Daihen Welding Robots



Reliable. Repeatable. Clean. That's the OTC Daihen Single-Source Solution.

With a wide range of high-performance robots and products, OTC Daihen is a global leader in innovative welding and robotic solutions. Keeping it all together with one seamless system OTC are the world-leading innovators for Synchro-Pulse, Wave-Pulse and Digital Power-Source technologies. OTC Daihen features the most advanced welding products in the world, while user-friendly features and interfaces enable both experienced and novice welders to achieve outstanding quality, consistency, and efficiency.



Key Features:

- **Synchro-Motion** - Multiple units (robots and positioners) moving together in coordination.
- **Synchro Short Pulse Control** - Waveform control enabling rapid welding with no spatter.
- **One Knob Control** - Adjusting welding voltage and current at the same time.
- **Constant Arc On** - Revolutionary design to maintain a solid arc for AC MIG welding.
- **Retract Start Control** - Enabling instant arc starts for robotic aluminium MIG welding.
- **Wave Pulse** - Creating high-speed TIG-like weld beads with pulse MIG welding equipment.

OTC Daihen Robot Controller

The OTC Daihen FD19 Robot Controller has the limitless potential of extensive connectivity.

Key Features:

- Easily connects with peripheral equipment through simplified system configuration with high-performance built-in software PLC.
- Connects from anywhere in the world for remote maintenance and support.
- Greatly improved synchronisation with welders.
- Will enhance your system by connecting commercial peripherals, such as 2D/3D vision systems, offline teaching systems and laser sensors.



OTC Robot 6-Axis Series Arc Welding Robot Line-Up



FD-B6
6kg payload, 1400mm reach



FD-V8
8kg payload, 1400mm reach



FD-B6L
6kg payload, 2000mm reach



FD-V8L
8kg payload, 2000mm reach

Your Partner in Welding, Delivering Industrial Throughput and Quality

Automate repetitive welding tasks with the Autoline Cobot welder, a safe and easy to program collaborative robot platform. A collaborative robot welder is a low-cost and effective way to get started with welding automation. It is a flexible automation solution that allows manufacturers to increase their capability quickly and easily.

The Autoline cobot welder ensures maximum flexibility, easy programming, and consistent high-quality welds, for a rapid return on your investment. For engineers that have low-volume, high-mix manufacturing, the Autoline Cobot is ideal. Being quick and easy to teach via the Doosan teach pendant makes automated welding of smaller batches economical. Also, you have the ability to adjust weld parameters and speed during the welding process using the teach pendant.

Our Cobot Welder is a configuration of reliable and proven technology with a Doosan Collaborative Robot and OTC Daihen Welding Hardware. This innovation is a combination of world-leading cobot, and welding technology manufacturers bought together by Autoline.

Get your production up and running with the Autoline cobot welder. Installation and training are performed by Autoline robot technicians. We are there to support you every step of the way and will help you address the challenges of your specific cobot welder application.



Key Features:

- **Increased Capacity and Boosted Productivity**

The cobot welder maximises production by minimising unnecessary unproductive time and allows human workers to focus on other higher skilled tasks.

- **Quick and Easy to Teach**

Simply hand guide the robot arm through the weld path for programme using the Doosan Cockpit.

- **Safe to be Around**

Outstanding safety and precise operation by 6 joint torque sensors.

- **Easy to Relocate**

Easy to manoeuvre and relocate around the workshop due to its small footprint.

- **Cost Savings and Flexibility**

A cobot welder delivers consistent quality with each weld; this level of precision helps you get the most out of your consumables, reducing costs.

- **Welds Longer, Continuous Seams**

Weld up to 2600mm in a straight continuous line with the 1700mm reach model cobot.



Autoline Auto-Copal Palletising Robot

A flexible palletising solution that delivers the reliability of an industrial palletising system.

Optimise your end-of-line productivity by automating repetitive tasks with the Auto-Copal, a cost-effective and flexible palletising solution. A collaborative robot palletiser combines a high payload cobot and our revolutionary palletising robot base to provide a flexible solution that will streamline your packaging process.

The Auto-Copal is a configuration of reliable and proven technology with a Doosan Collaborative Robot and OnRobot End-of-Arm Tooling. Heavy-duty collaborative robot palletising is now possible with the Doosan H Series model cobots which have the heaviest payload available on the market, bringing a safe work environment for heavy object stacking and palletising.

The high payload cobot features a 25kg payload, this means the Auto-Copal palletising system can handle heavy boxes that are considered a health and safety risk for humans to stack. With the flexibility to palletise single or multiple production lines simultaneously. This dual adaption reduces costs while also increasing your productivity and manufacturing capacity.

Palletising collaborative robots offer the ability to lift heavy payloads at a good speed, reducing cycle times, increasing the stacking rate of boxes, and achieving greater dynamic performance.



Key Features:

- Compatible with Doosan H2017 and H2515 models.
- Multi-pallet stacking.
- Single box type per layer.
- Any pallet pattern from layer to layer or pallet to pallet.
- Reduced speed in collaborative mode when operator enters the robot cell.
- Hard safety reset (physical button).
- Supported End-of-Arm Tooling by OnRobot.
- Minimal footprint and transportable.
- Quick deployment.
- Industry leading ROI.
- Flexible automation
- Easy to learn programming
- Remote Support
- Optional Belt or roller infeed conveyors
- Optional collaborative robot lifter



OnRobot End of Arm Tooling



One Stop Shop for Collaborative Robot Applications.

OnRobot delivers a full line of plug-and-produce end-of-arm tooling (EoAT) for collaborative applications. OnRobot's innovative grippers, sensors, and tool changers help manufacturers gain the full advantages of collaborative and lightweight industrial robots, including ease of use, cost-effectiveness, and safety alongside human workers. OnRobot products open new possibilities for automating tasks that you never thought possible. The cutting-edge gripping and sensing systems for industrial automation let you easily design collaborative applications that enable your workforce to work side-by-side with collaborative robots on applications like assembly, surface finishing, pick and place, machine tending or testing.

Key Features:

- Multiple tools, robots and applications – for multiple returns.
- Save cost and increase productivity with flexible automation tools. One system, zero complexity.
- Save time and grow your business fast with unified programming and easy redeployment equipment.



OnRobot Applications:



Machine Tending



Material Handling



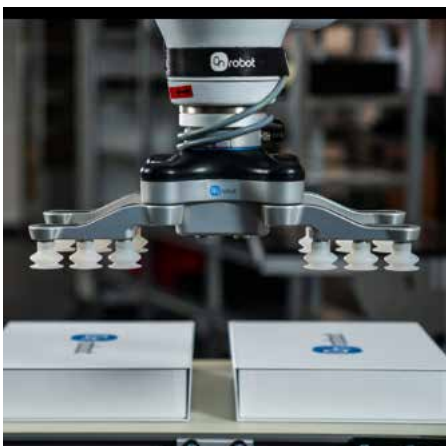
Material Removal



Quality Checking



Assembly



AUTOLINE
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Check out OnRobot's
End of Arm Tooling Products.

OnRobot WebLytics

OnRobot WebLytics is the first remote monitoring and diagnostics software to optimise production and minimise downtime for collaborative robot applications. Data is collected automatically from any leading robot and all OnRobot tools for real-time and historic views and alerts. WebLytics is flexible and scalable for use on the shop floor and for management-level decisions, even in dynamic environments.



Offline Robot Programming Software

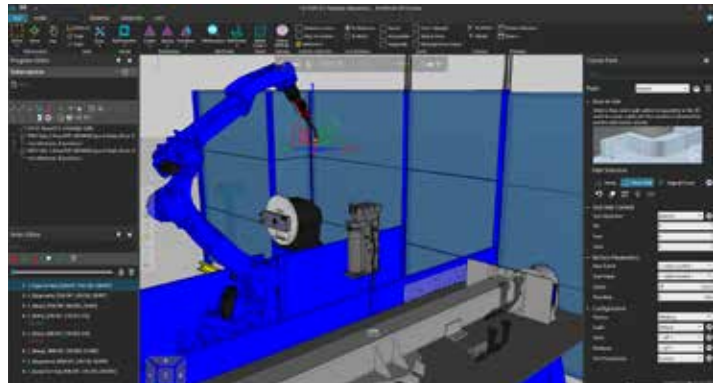
Octopuz



Octopuz takes a revolutionary approach to robotic programming by combining the offline programming of robotics with a manufacturing process simulation, making it ideal simulation software for any application. The team at Autoline can design and simulate your manufacturing processes and plant layouts prior to any purchase of capital equipment. See your own products in real motion and in 3D!

Key Features:

- Program, simulate and generate code for multiple robots.
- Generate code from Octopuz to be inputted directly to the robot controls.
- Simple simulation building. Drag, drop, and snap components together.
- Yaskawa, OTC Daihen and Doosan robot brands supported.



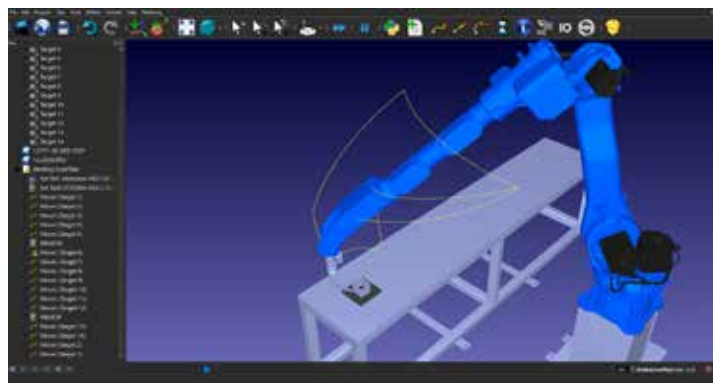
RobotDK



RobotDK is a powerful and cost-effective simulator for industrial robots and robot programming allowing you to get the most out of your robot. The advantage of using RobotDK's simulation and offline programming tools is that it allows you to program robots outside the production environment. With RobotDK you can program robots directly from your computer and eliminate production downtime caused by shop floor programming.

Key Features:

- No programming skills are required with RobotDK's intuitive interface.
- You can easily program any robot offline with just a few clicks.
- RobotDK has an extensive library with over 600 robot arms.



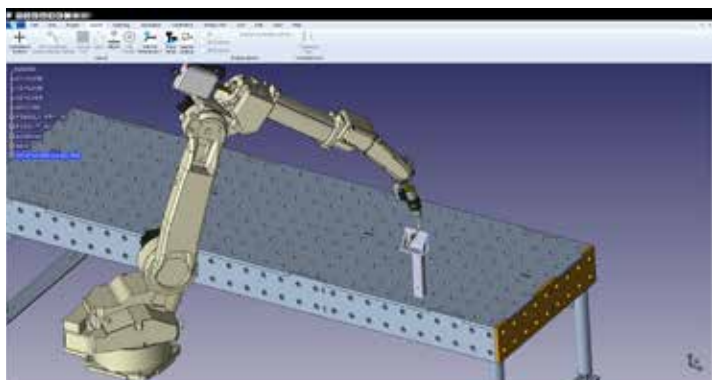
OTC Daihen FD-ST



FD-ST Offline Teaching System is a full robot simulation and offline teaching through a PC application. Reduce up-front system implementation through cell building and production engineering through robot program simulation.

Key Features:

- Offline 3D cell layout, programming and simulation package.
- Simplified external axis teaching.
- Sensor programs can be automatically created.
- Reduce the man-hours required for teaching/simulation of production robotics.
- Automatic creation of work programs from your CAD data.



Robot Solutions for Every Industry and Application.

Robotics has been used for decades in the automotive industry, but many industries since have seen the benefits of robotic automation. The rule of thumb for what industrial tasks are best for robots is the “Three D’s” rule: Any task that is Dirty, Dull or Dangerous. Typical robotic applications are simple and repetitive tasks that require dedicated resources to perform.



OTC Daihen Robot Welding



Yaskawa Robot Welding



Palletising & Depalletising



Machine Tending



Assembly



Press Brake Tending



Material Removal



Painting

Robot Servicing and Maintenance

Preventative Robot Maintenance.

Our guarantee of expert service goes beyond delivering industry-leading robotic and automation solutions customised to your specific needs. After your automation equipment is installed, we will continue to provide dedicated support and ongoing service to ensure maximum robot performance and return on investment over the life of your asset. Autoline's in-house skilled robot technicians are trained service and application engineers with years of experience working with Yaskawa, OTC Daihen, and Doosan equipment.

The manufacturer (Yaskawa and OTC Daihen) recommendation is to service a robot every 2 years or 6000 servo hours. A typical service consists of full lubrication and replacement of all encoder back up batteries. Replacement of encoder back up batteries is essential to maintain correct encoder positions as these cannot be restored with a backup of data and if allowed to fully discharge, it can involve extensive reprogramming of your robot and an urgent service call out.

Contact us today to book in your robot service or ask about our service contracts.



Robot Operator Training

Maximise Your Robotic Equipment Performance and Return on Investment with Training.

We provide hands-on robot operator training services for our customers, so they are technically trained and have the knowledge to carry out their job as a robot operator and therefore maximise your robot equipment performance. Standard, modified, and customized training courses are available by our trained robot technicians and programmers to suit your robot/s and application. Autoline robot technicians are active service and application engineers with extensive knowledge of our products including plentiful experience working with Yaskawa, OTC Daihen, and Doosan equipment.

Practical hands-on training at Autoline or on-site training at your site can be scheduled to teach robot operators of all experience levels to increase knowledge, improve skills, and reinforce safety practices.

Contact us today to book in your robot operator training session.

Advantages of Training Include:

- Help impart operators with the knowledge to enable proper action and meet your occupational health and safety obligations through third party training and certification.
- Instructors are active service technicians and have unparalleled industry knowledge of robotic equipment.
- Support you at an early stage so that problems are identified early.
- Assist you with your processes and thus help to optimize and secure the productivity of your facility with increased productivity.
- Follow up or additional training is available.
- For information such as scheduling training sessions and pricing please contact us to discuss.





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Our Work

