



# MECHATRONIC SOLUTIONS

## Product & Service Overview





Aluminum Extrusion

Automation Control

Connectivity & Networking

Conveyors

Custom & Standard Enclosures

Linear Motion

Machine Bases

Machine Safeguard

Machine Vision

Motion Controllers & Drives

Part Feeders

Pneumatics

Precision Stages

Robotic End Effectors

Robotics

Rotary Motion & Gearboxes

Sensors

Workstations & Assembly Tables

## Automation Technology Delivered

Mechatronic Solutions is a leader in providing high-quality automation technology products, solutions, and services to companies across nearly all industries in Minnesota, Wisconsin, North Dakota, and South Dakota.

At Mechatronic Solutions, we are experts in automation technology. Over 50% of our employees are engineers and automation specialists. We have an extensive Automation Solutions Lab with a variety of hardware, including robots, part feeders, vision, PLCs, and more for proof-of-concept testing. We also offer frequent education and training sessions on all automation technologies for our customers.

With a highly trained and skilled team, customer-centric approach, and partner network that features some of the top automation manufacturers in the world, including Dorner, Festo, Omron, Yaskawa, and many more, we are here to work with you as your partner in automation.

### Contact Information

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# Automation Technology Delivered

Mechatronic Solutions is a distribution partner for the following leading manufacturers:



## Aluminum Extrusion

We are a stocking distributor for TSLOTS, the leading aluminum extrusion manufacturer on the market. With metric, fractional, and B-series options, there is a solution for any project. Additionally, our team can design and fabricate a custom extrusion assembly to your exact need and specification.



Extrusion (Fractional, Metric, B-Series)



Extrusion Components



## Connectivity & Networking

Seamless network connectivity and communication is crucial in today's manufacturing environment. We carry industry-leading solutions including Ethernet switches, junction blocks, and PICs.



Cable & Cord Sets



Ethernet Switches



Junction Blocks



Panel Mount Accessories



Panel Interface Connectors



## Control & Sensors

Automation control and industrial sensor products are essential for managing and monitoring manufacturing processes. Our selection of products in this category includes human-machine interfaces (HMIs), industrial PCs, programmable logic controllers (PLCs), power supplies, and a variety of sensors.



HMIs



Industrial PCs



PLCs



Power Supplies



Remote I/O



Temp Controllers



Fiber Optics



Measurement Sensors



Photoelectric Sensors



Presence Detection



Rotary Encoders



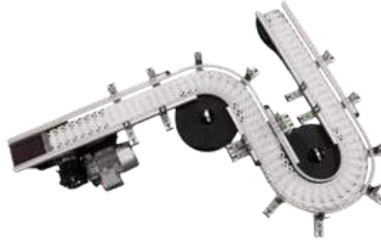
Ultrasonic Sensors

## Conveyors

Mechatronic Solutions is a leading distributor of Dorner conveyors. Dorner's wide variety of industrial, precision, and sanitary conveyance solutions are designed to optimize production output and efficiency. We can also help design custom conveyor systems specific to your need and application.



**Belt Driven**



**FlexMove**



**Monorail**



**Industrial Roller**



**Pallet**



**Sanitary**



## Custom & Standard Enclosures

We offer enclosures from Saginaw Control & Engineering (SCE) and Vynckier. Enclosure solutions include NEMA 4, NEMA 4X, various build materials (steel, stainless steel, non-metallic), and many other options.



**Non-Metallic**



**Steel**



**Stainless Steel**



**Modular Enclosures**



**Suspension Arms**



## Linear Motion

We offer a large selection of linear motion solutions. Products include ballscrews and guideways, electric and pneumatic cylinders, belt and electric actuators, mini slides, and gantry systems.



Ballscrews and Guideways



Electric Cylinders



Electric Actuators



Bosch Linear Rail



Miniature Slides



Pneumatic Cylinders



Toothed Belt Axes



XYZ Systems

## Machine Bases and Robotic Weld Cells

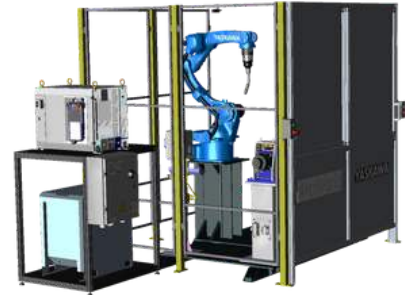
Our extrusion shop creates complex structures out of TSLOTS aluminum extrusion and other materials. These range from robot cells and machine bases to full weld-cells and turntables.



Structural Cells



Weld Cells



## Machine Safeguarding

There is nothing more important than keeping your team safe. We carry Omron and Sick's full line of products, which includes laser scanners, light curtains, safety controllers, safety door switches, and safety relays. We also carry GSM hard guarding and can develop a custom guarding solution specific to your need.



Laser Scanners



Safety Door Switches



Light Curtains



Safety Controllers



Custom Hard Guarding



Safety Relays



## Machine Vision

Our comprehensive selection of machine vision and identification products includes barcode readers/scanners, industrial machine vision cameras, RFID solutions, vision systems, smart cameras, and PC vision controllers.



Barcode Readers & Scanners

Machine Vision Cameras



Machine Vision Lighting and Lensing

Smart Cameras



## Motion Controllers, Servo Drives & VFD's

Mechatronic Solutions is a leading distributor of motion controllers, servo drives, and variable frequency drives (VFDs) from Yaskawa, Omron, Lenze, and Festo. Product offerings include single-axis servo drives, multi-axis high performance motion controllers, VFDs for control of AC motors, and more.



Industrial VFDs

Motion Controllers

Servo Drives



## Part Feeders

Part feeders are a significant aspect of many robotic systems and automated manufacturing processes. Our selection of feeders includes Asyri's award-winning 3-axis vibration Asycube series capable of feeding parts ranging from 0.2mm to 150mm.



3-Axis Vibration Feeders



## Pneumatics

Mechatronic Solutions carries market-leading pneumatic products from Festo and Fabco-Air. Pneumatic solutions include air preparation units, valves and manifolds, vacuum components, and fittings and tubing.



Air Preparation



Fittings



Standalone Valves



Tubing



Vacuum Components



Valve Manifolds

## Robotic End Effectors

End-of-arm tooling is essential to every robotics application. We have a solution for any application with a variety of grippers from SCHUNK, Robotiq, Festo, and Schmalz.



2-Finger Grippers



3-Finger Grippers



Magnetic Grippers



Needle Grippers



Collaborative Grippers



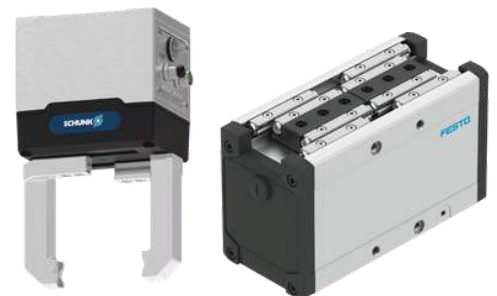
Vacuum Pad Grippers



Auto & Manual Tool Changers



Custom Applicators



Electric Grippers

## Robotics

Mechatronic Solutions is a leading robotics distributor for Omron, Yaskawa Motoman, and Mecademic. With a robust offering of collaborative, multi-axis, miniature robots, mobile, parallel, and SCARA robots, we have options for any application, including assembly, dispensing, inspection, machine tending, material handling, packaging, palletizing, pick and place, welding, high precision and more.



**Collaborative**



**Miniature Robots**



**Mobile**



**Multi-Axis**



**Parallel/ Delta**



**SCARA**

Rotary Motion & Gearboxes

As a distributor for leading manufacturers Yaskawa, Omron, Bosch - Rexroth, and Wittenstein, our vast selection of rotary motion and gearbox products includes direct drive motors, gear motors, planetary gearboxes, servo motors, and stepper motors.



Direct Drive Motors



Planetary Gearboxes



Gear Motors



Stepper Motors



Servo Motors

**OMRON YASKAWA FESTO**



**rexroth**  
A Bosch Company

Precision Stages

Our vast selection of stages range from precision ball screw stages, linear motors, rotary stages, and multi-axis configurations. We can also configure custom stages based on application accuracy requirements.



Linear Motors



Robot Transfer Units



Rotary Stages

**Bell Everman**  
Embedded Motion Systems

**FESTO YASKAWA ROLLON**

## Automation Solutions



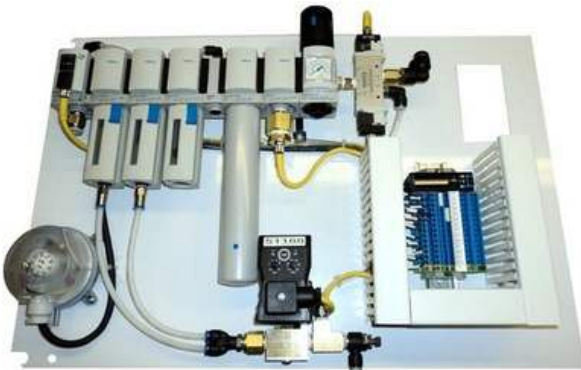
### Custom Conveyor Systems

Standard off-the-shelf conveyors often need to be customized to accommodate certain applications and layouts. Utilizing industry-leading Dorner conveyors, we can develop a custom conveyor system specific to your need. We can provide design assistance, full or partial assembly, and run-off testing for your system.



### Machine Guarding

Machine guarding is critical to maintaining a safe work environment. We can deliver machine guarding safety fences combined with machine safety products such as light curtains or laser scanners. Our team is available to provide design services as well as full mechanical and electrical assembly.



### Pneumatic Control Panels

Mechatronic Solutions is a leader in the production of custom pneumatic control panels. Utilizing high-quality components from industry-leading manufacturers, Festo and Fabco-Air, we deliver fully assembled and tested panels that provide centralized control for your operations utilizing pneumatics.



### UL 508A Electrical Control Panels

We are a UL 508A certified panel shop for a variety of solutions including electrical and automation components. Our engineers can develop electrical schematics and design panels to your specification, then our experienced electrical assembly technicians will construct and test the panel before shipping it to you.

## Automation Solutions



### Aluminum Extrusion Assembly

From conception using 3D Solidworks models to construction, our team can provide cut and assembled TSLOTS extrusion to your exact need and specification. Common types of assemblies include frames, guarding for machine and robotic cells, cabinets, carts, workstations, and enclosures.



### Feasibility/Proof-of-Concept Testing

Feasibility/proof-of-concept testing is an important part of our approach to providing high-quality automation solutions. We have a team of application engineers and an extensive automation solutions lab with demo equipment for testing, including robots, part feeders, vision, end-of-arm tooling, PLCs, and more.



### Kitting

Mechatronic Solutions provides kitting services for any automation project to help our customers save major time and money. We'll build a list of all parts, purchase and receive them, provide any assembly and testing if necessary, package everything into a kit, and deliver it in one shipment to your facility.



### Manufacturing/Assembly Services

We provide contract manufacturing and assembly services including engineered subsystems for customers in a variety of industries. With design services to create subsystem solutions that fit seamlessly into new or existing processes, we can save you time, money, and hassle in your manufacturing operations.



# **MECHATRONIC**

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## **SOLUTIONS**

### **CONTACT US**

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Connect with us

