Your partner for robotic manufacturing solutions

 Manufacturers of all sizes are turning to automation to help solve labor shortages, increase productivity and improve product quality. The cost of robots continues to plummet. As a result, they are no longer only used for high volume, high speed manufacturing operations. Robots now offer a rapid ROI for small-batch and mixed-product manufacturing processes. They are lightweight and mobile, allowing for rapid re-deployment for multiple applications or processes.

We offer solutions to manufacturers that will provide significant increases in quality, lower production costs, and higher returns on investment than the costly process of transferring manufacturing lines offshore.

Increase speed, precision, and quality right where you need it

We create custom and off-the-shelf solutions for a variety of applications across multiple industries. Our team leverages innovative thinking and a depth of experience that are tailored to your specific needs.

We excel at technical projects and in regulated industries.

- Aerospace and Defense
- Automotive
- Battery and Energy
- Consumer Products
- Food and Beverage
- Heavy Equipment
- Life Sciences and Medical Devices
Technical capabilities that are as diverse as our customers

From custom vision applications to off-the-shelf dispensing solutions our team can build a solution for any application, process, and industry. Our capabilities across multiple industries can quickly adapt to your specific manufacturing challenge.

**TECHNICAL CAPABILITIES**

**ASSEMBLY SOLUTIONS**
- Adhesive and sealant dispensing
- Part/Flex feeding
- Force measurement
- Joining/Fastening
- Machine tending
- Precision component assembly/part placement
- Robotic assembly
- Robotic palletizing
- Screw driving
- Vision guided robotics
- Vision inspection and verification systems

**INSPECTION AND TESTING**
- 2D & 3D laser inspection
- Force testing
- High speed camera vision inspection
- Inline bead inspection
- Lot traceability
- LVDT mechanical inspection

**MATERIAL HANDLING SOLUTIONS**
- Collaborative robotics
- Conveyor integration
- Packaging
- Palletizing and de-palletizing
- Singulation
- Sorting

**MACHINE TENDING**
- CNC machining
- Engraving
- Laser welding
- Laser marking
- Molding machines
- Routing
- Ultrasonic welding

**ROBOTICS INTEGRATION**
- 6-axis robot integration
- Collaborative robot integration
- Delta robot integration
- Industrial robot integration
- Robotic assembly
- Robotic cell simulation
- Robotic dispensing
- Robotic machine tending
- SCARA robot integration
- Vision guided robotics

**IN-HOUSE MANUFACTURING CAPABILITIES**
- Bending/Forming
- CNC machining
- High resolution 3D printing
- TIG welding

**RAD KIT**
- Syringe based for 3 to 55 cc/ml syringes
- 10.85 psi with vacuum pullback included

**TPS KIT**
- 50 ml side by side cartridge for 2 part adhesives
- 1:1, 2:1, and 4:1 mix ratios
- 10-85 psi for low to medium volume applications

**DDS KIT**
- 300 ml cartridge based dispensing system
- 10-85 psi for low to medium viscosity materials

**TIP DETECTION SENSORS**
- Digital X, Y, and Z sensors for precision dispense applications
- Resets the TCP of the robot to increase precision of system
- Options for small opaque tips and large transparent tips
- Includes plug-and-play wiring (6’ cables) and starter program

**DISPENSING APPLICATIONS**

**APPLICATION**
- Beads
- Dots
- Microdots
- Potting
- METERING
- Positive displacement
- Progressive cavity
- Time pressure

**MATERIALS**
- Conductive epoxies
- Conformal coatings
- Cyanoacrylates
- Epoxies
- RTVs
- Anaerobic sealants
- Silicones
- UV cures/Acrylics

**Cartridge Dispensing Systems: Take the Headache out of Adhesive Dispensing**

**FAST, EASY TO USE, RAPID ROI**

Our affordable and easy to implement syringe and cartridge based dispensing kits rapidly turn 4- and 6-axis robots into precision dispensing machines. We offer multiple dispensing options for the most demanding and precise applications. From simple XY based adhesive applications through coordinated 6-axis motion, we have a cost-effective, flexible, and safe automation solution for your dispensing application.
Machine Vision Integration

Arsenal can help improve efficiency, increase product quality, and reduce production costs by implementing vision for pick-and-place, OCR, and inspection applications. Our experience with complex, precision vision projects ensures the correct selection of vision technology specific to your project needs.

VISION APPLICATIONS

- 3D sensor integration
- Assembly/component placement
- Defect identification
- Dimensional inspection
- Flex feeding systems
- High speed camera vision inspection
- HMI integration
- Inline bead inspection
- Lot number detection and comparison
- Multi-camera systems
- OCR evaluation
- Part inspection
- Pick-and-place
- Presence/Absence detection
- PLC and other hardware integration
- Vision guided robotics

Project Execution

SUCCESSFUL TECHNICAL PROJECTS ARE A RESULT OF DISCIPLINED PROJECT MANAGEMENT

Our projects follow a standard process to clearly define requirements, expectation, timing, and critical project elements. Our process requires continuous communication with the customer to ensure equipment shows up on time, in budget, and ready to start production when it arrives at your facility.

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Service and Support

EQUIPMENT THAT YOU CAN COUNT ON.

We strive to develop equipment that you can count on 24/7. To ensure the long term reliability of your equipment we offer support to keep you running and get equipment back online when it’s down.

PREVENTATIVE MAINTENANCE

Inspection and maintenance to keep your equipment running smoothly.

CUSTOM MAINTENANCE PLANS

Custom programs to meet your exact needs for maintenance, downtime support, production scheduling, and training.

Financing and Leasing

TAILORED FINANCING SOLUTIONS TO GROW YOUR BUSINESS

Benefit from automation and robotics without the upfront capital investment

- Hardware or turnkey systems financed up to 100%
- Flexible payment options and terms

SPARE AND REPLACEMENT PARTS

We can provide OTS and custom replacements of critical spare parts to minimize downtime.
PREFERRED VENDORS

Universal Robots Certified System Integrator
ABB Robotics Value Provider
Epson Authorized System Integrator
B&R Controls  Yaskawa
Keyence    Cognex
Vention    Omron
Dorner      Phoenix Contact