



PROVIDING SOLUTIONS for Automation, Robotics and Controls by offering multiple disciplines that help you achieve your desired results. Our **TEAM** delivers NEW solutions to maximize your projected outcome.

1•855•ROBOT•GO

www.ArcEngSolutions.com

OVERVIEW

APPLICATIONS ENGINEERING - Provide electrical and mechanical expertise to solve automation specific application problems by utilizing best known industry practices.

CONTROLS ENGINEERING - Design and implement control programs on PLC's, SCADA, HMI's, Vision Systems, Robots and Motion Controls specific to each application and project requirements with the ability to interface to a database.

DESIGN ENGINEERING - Provide electro-mechanical designs for machine downtime improvements and cost reductions. Perform sizing calculations for motion control and fluid power applications.

DESIGN SPECIFICATION - Develop controls and mechanical specifications for machines to be used when purchasing equipment. Collaborate with the systems integrator / machine OEM to ensure adherence to machine specifications.

ELECTRICAL ENGINEERING - Design and develop electrical schematics with AutoCAD 2014 to be used in constructing control solutions for automated equipment.

FIELD INSTALLATION - Perform retrofits, upgrades and online programming changes to production settings, including model year changeovers, error proofing, bar code data parsing and KAIZEN project implementations.

MANUFACTURING ENGINEERING - Provide FEMA documentation, conduct time studies, work with line layouts, produce operator instructions, utilize G8D for problem solving and work to improve product quality through KAIZEN efforts.

MATERIAL HANDLING: Provide complex automated solutions to move products from point A to point B utilizing conveyors, cross transfers, high speed sorters, lifts, ASRS, bar code readers, RFID, print and apply equipment all interfacing to an overall plant MES.

MECHANICAL ENGINEERING - Develop and provide mechanical mechanisms utilizing Solid Works solving the most complex problems. Past designs include Automated Assembly and Test Equipment, Floating Belt Tensioners, Part Escapements and Robot End of Arm Tooling.

PROJECT MANAGEMENT - Provide management on all aspects relating to overall project-planning and implementation ensuring desired results. Milestones are met following a Gantt chart format developed through the use of Microsoft Project.

SAFETY - Provide onsite inspection including viewing equipment, documentation, existing controls and assessments to get the best possible idea of equipment usage and risks. Provide a safety analysis allowing for the design and build of the safety system utilizing Leuze Electronics' line of products.

SIMULATION - Utilize Demo 3D or Robcad to simulate robot paths / reach, prove material handling or automated equipment feasibility all prior to any robots being purchased, wire being pulled or steel being cut. Using this approach saves both time and money.

SYSTEMS INTEGRATION - Provide electrical, mechanical, controls and software expertise to program, startup, debug and commission automated machinery.

AUTHORIZED DISTRIBUTOR* Representing the following category specific manufacturers.

- **LEUZE ELECTRONICS: Sensors, Safety and Barcode Readers**
- **INDUCTIVE AUTOMATION: Software Solutions**
- **ROCKWELL AUTOMATION: Software Solutions**

 **Leuze electronic**



 **Rockwell Automation**

*Other Manufacturers Product Are Also Available.

SPECIALIZING IN THE FOLLOWING AREAS

- 2D and 3D Capabilities
- Applications
 - Electrical, Manufacturing
 - Mechanical Engineering Services
- Automation Product Sales
 - Leuze, Inductive Automation**
 - Parker, **Rockwell Automation**
- Consulting
- Contract Engineering /Techs
- Controls Engineering
- Custom Automated Equipment
- Data Acquisition
- Data Information Parsing
- Design Engineering /Mechanical Specifications
- Electro Mechanical System Installations
- Field Installation
- Fluid Power and Electrical Circuit Design
- HMI Programming
- Industrial Networks / Fieldbus
- Industrial Network Security
- Motion Controls:
 - Servo / Stepper Motors /VFD
 - Motor Drives and Controls
 - Sizing and Selection
- Onsite Startup and Engineering Support
- Panel Builds
- PLC Programming
- RFID
- Robotics Programming
- SCADA Programming
- Safety Analysis
- System Integrations
- Vision System Programming/Installation
- Sensor Technology

AREAS OF EXPERTISE

HMI's

Allen Bradley	Mitsubishi
Eaton Cutler Hammer	Omron
GE	Parker / CTC
Horner	Quick Panel
Idec	Red Lion
Inductive Automation	Rockwell
Keyence	Siemens
Maple Systems	Wientek

INDUSTRIAL NETWORKS / FIELDBUS

AS-Interface (ASI)
CAN Bus
Devicenet
Industrial Ethernet
CIP Motion
Ethernet IP
Ethernet Powerlink
Mobius TCP/IP
Profinet
Industrial Network Security
Interbus
Modbus RTU
Profibus
Profinet
Safety BUS
Sercos

MOTION CONTROL

AC Tech
Aerotech
Allen Bradley
Control Techniques
Invertek
Leuze
Parker
Rockwell
Schneider Electric
Yaskawa

PLC's

Allen Bradley
GE
Horner
Mitsubishi
Modicon
Omron
Rockwell
Schneider Electric
Siemens
Telemecanique

RFID

Balogh
EMS
RF Ideas
Turck

ROBOTICS

ABB
Adept
Epson
Fanuc
Kawasaki
Kuka
Motoman
Nachi
Seiko
Stäubli
Universal Robotics

SAFETY

Allen Bradley
Leuze
Pilz
Rockwell
Siemens

SCADA

Allen Bradley
GE Cimplicity
Inductive Automation: IGNITION
Parker Interact

VISION

Banner
Cognex
DVT
Fanuc
Keyence
Leuze

PROGRAMMING LANGUAGES

Batch

C++

IEC 61131 - 3 (PLC)

Function Block Diagram
Instruction List
Ladder Diagram
Sequential Function Chart
Structured Text

Java

Javascript

Jython

Python

SQL

TPL / TPP

VAL+

Visual Basic

INDUSTRIES

- | | | | |
|----------------|---------------------|----------------------------|---------------------------|
| • Assembly | • Distribution | • Manufacturing | • Material Handling |
| • Automotive | • Food and Beverage | • Golf Course / Irrigation | • Packaging |
| • Construction | | | • Waste Water / Utilities |

