



Innovation and Experience from your single source  
Robotic Systems Integrator



**Genesis<sup>®</sup>**  
**Systems Group, LLC**

[genesis-systems.com](http://genesis-systems.com)

## Who We Are

Genesis Systems Group is a recognized leader in robotic systems integration. In business since 1983, Genesis specializes in factory automation with robots for welding, cutting, non-destructive inspection, adhesive application, material removal, material handling and waterjet cutting. Genesis' solutions focus is backed by expertise in part processing, process development, system and tooling design, motion controls, manufacture, and implementation of industrial automation. With over 4,500 robotic system installations, Genesis has workcells located in 42 states and 15 countries.

Genesis helps its clients manufacture things with robots. We strive to enhance client productivity and profitability through collaborative development of automation robotic systems. Our people have depth and experience. Over 1/3rd of our employees have 15+ years of experience with Genesis in the robotic automation industry.

## What We Do

A successful solution starts with effective planning and analysis. Genesis understands each robotic automation challenge presents numerous variables which can affect the success of a project. Rigorous analysis, detailed design and manufacturing review give us the opportunity to fine-tune your application.

Comprehensive engineering, mutual understanding and planning are crucial to the success of your project. Nothing short of total satisfaction is acceptable.

- Developing robust systems using the correct tools for your application
- Utilizing pre-engineered proven components to control lead time and cost
- Custom engineering to meet individual project requirements
- Collaboration across all departments with one goal...your automation success
- Best in Class support, from Sales to Service, Genesis stands by every system we build

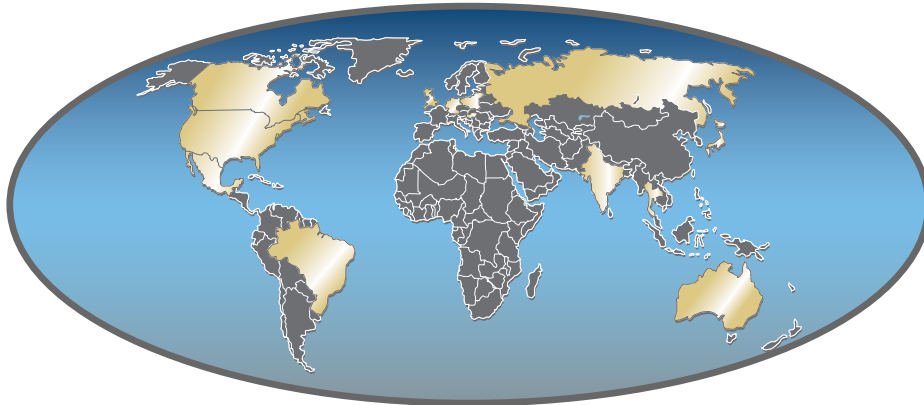


## Solutions

- Welding – arc and resistance spot
- Non-destructive inspection
- Laser and remote laser welding
- Tooling
- Thermal cutting
- Vision
- Adhesive dispensing
- Abrasive waterjet cutting
- Material handling
- Material removal
- Machine tending
- Assembly

## Global Facilities

- United States
  - Genesis Launch Center, Davenport, IA
  - Genesis Versa Factory, Davenport, IA
  - Genesis Sales & Engineering Office, Rochester Hills, MI
- International
  - Genesis-ICESA Systems; joint venture in Mexico
  - Genesis Systems Group, Japan KK; wholly owned subsidiary in Japan
  - Strategic Alliances located in Mexico, Japan, Czech Republic, Brazil, India



# Services

- **Genesis Automated Solutions**

- Process Development
- Engineering studies
- Prototyping, limited production and preproduction runs
- Demonstrations - GMAW, RSW, plasma, laser welding, NDI, vision
- Metlab – cut and etch, photomicrograph, statistical and analytical reporting
- Weld verification – laser/vision, arc data monitoring and reporting

- **Genesis Virtual Solutions**

- 3D Simulation
- 3D Printing – production and prototyping
- 3D Environment
- Offline programming and simulation
- Reach studies
- Workcell and work flow layout

- **Parts and Service**

- 24/7 Hotline / phone support
- Single source warranty and parts
- Field service
- System documentation
- Reintegration services
- Productivity improvement and preventative maintenance services
- Genesis IntelligenceCenter™ – remote production and system monitoring

- **Training**

- Basic and advanced robot programming and system maintenance training
- Certified Robotics Arc Welding (CRAW) Training and Certification Center
- Offline programming training
- On-site and custom training classes

- **Design for Manufacturing and Design for Automation**

- Distortion analysis
- Variation simulation analysis

- **Prototype Tooling**

- **Automation Peripherals**

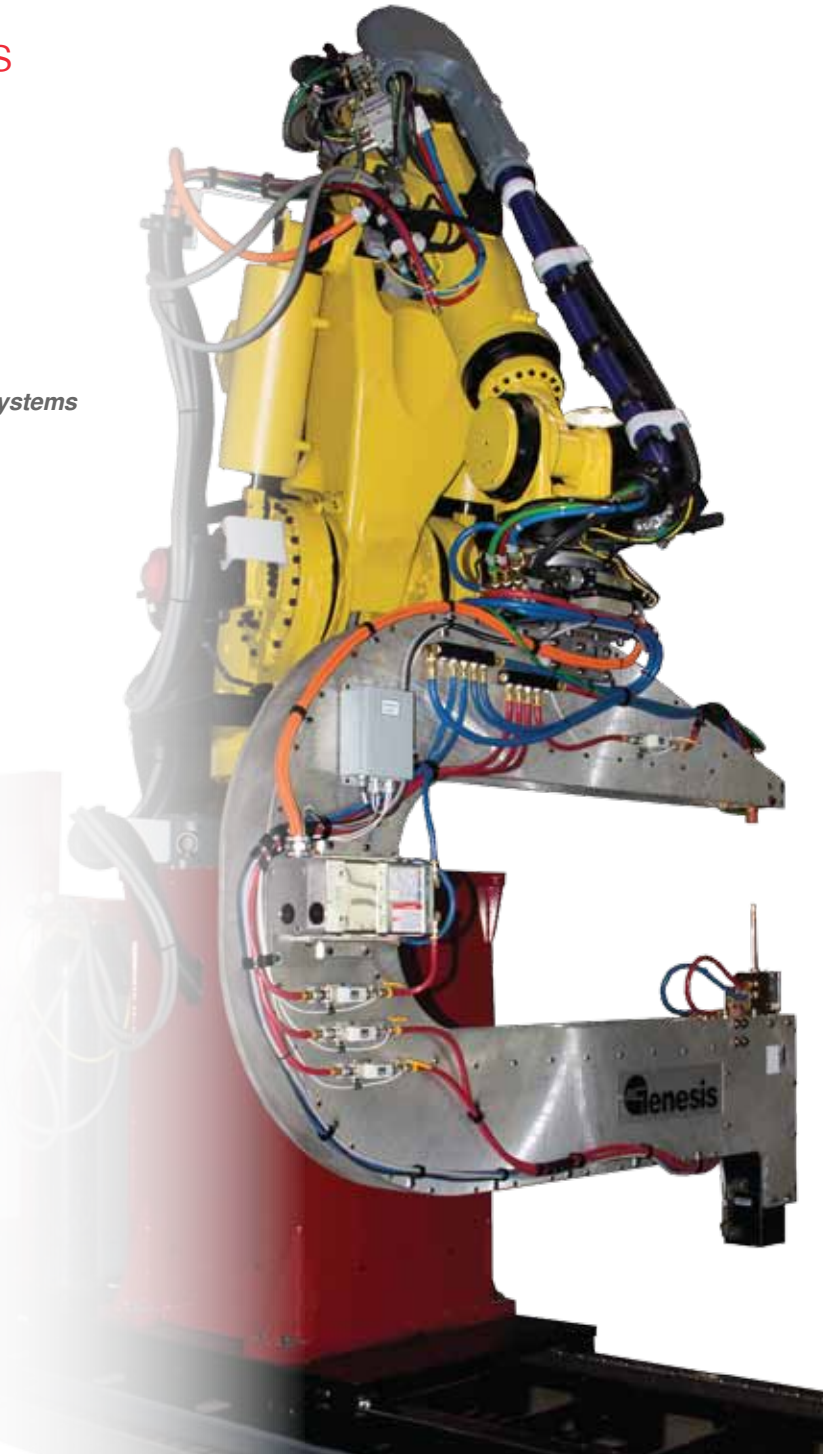


# Operating Principles & Values

- Right Person, Right Place
- Safely, Correctly, Quickly
- Client Focus on Solutions and Process Variety
- Passion for Opportunity

# Core Capabilities

- **Standard Pre-Engineered Platforms, Positioners and Systems**
- **Custom Configured System Solution**
- **Application Engineering**
  - Process development
  - Robot and part programming
  - System controls
- **Tooling**
  - Manual to fully-automated fixtures
  - In-house tool design
  - Dimensional control
  - Adjustability
  - Weld access
  - Heat and spatter resistance
- **Engineering and Project Management**
- **Single Source Customer Service and Support**





# Welding

Welding is the core of many industries and the foundation of business at Genesis Systems Group. Genesis Welding Engineers have the latest technology at their fingertips in our world class Automated Solutions Center and continue to research and develop new processes.

- Gas Metal Arc Welding
- Resistance Spot Welding
- Thick Plate Welding
- Laser Welding
- Thin Gauge Welding
- Plasma Welding
- Laser Hybrid Welding

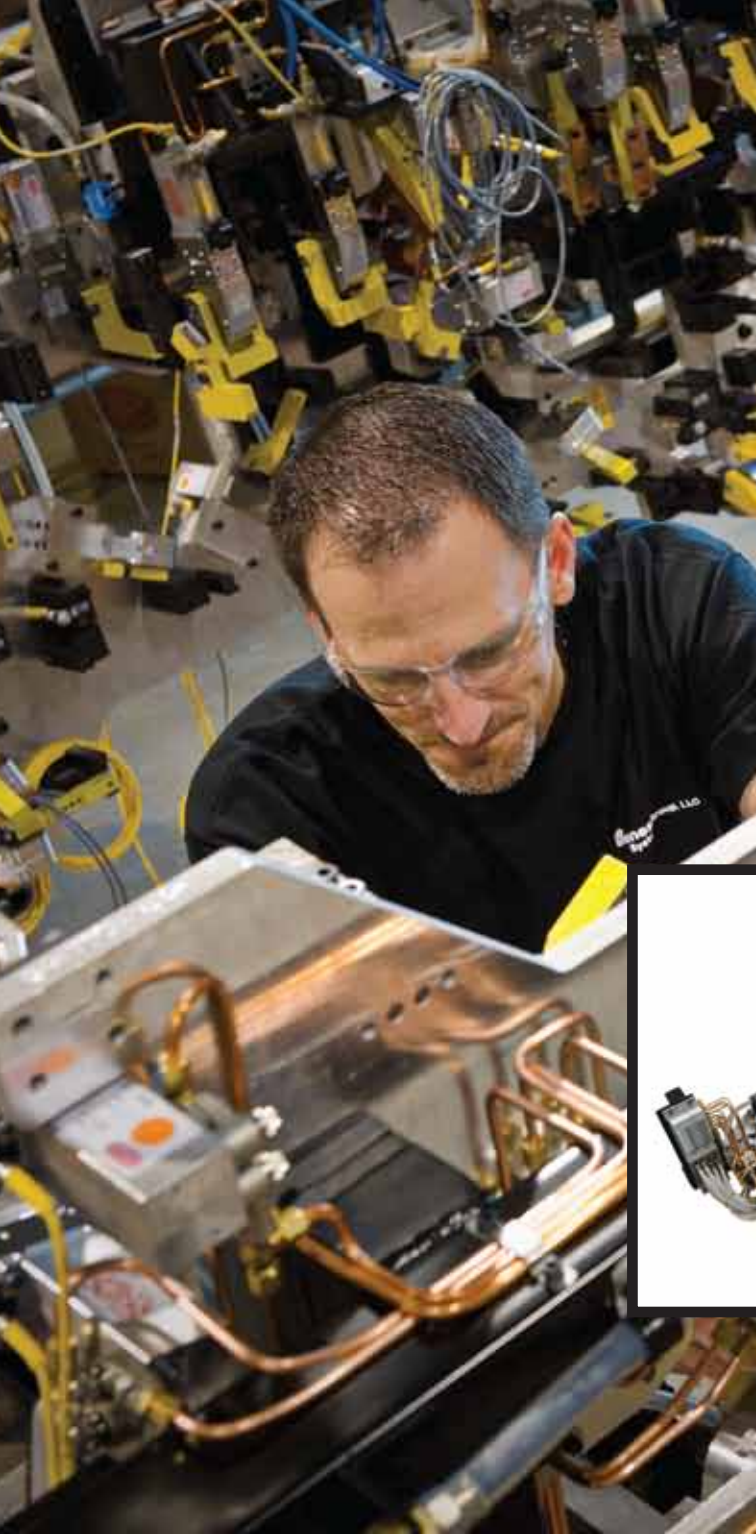
# Laser

Laser Welding and Cutting are challenging processes and Genesis has successfully engineered, programmed and installed multiple laser projects.

An automated solution provides flexibility to move the robot around highly contoured parts with highly repeatable accuracy. Laser beam travel speed can significantly reduce your cycle times. Precise parameter control of the laser beam provides superior quality welds and cut lines, drastically reducing post finishing processes.







## Tooling

Genesis' experience delivering turnkey robotic automation solutions for thousands of applications sets us apart. Genesis understands the process, the environment and what it takes to successfully produce high quality automated assemblies.

Genesis has combined the two strongest links to producing a quality product, Dimensional Engineering and Tooling Proficiency. Genesis offers manufacturers a unique approach for dimensional control and fixtures.

- Commercial Grade Fixtures
- Manual Industrial Grade Fixtures
- Robotic Manual Clamp Industrial Grade Fixtures
- Robotic Auto Clamp Spec Grade Fixtures
- Fully Automated Spec Grade Fixtures
- End of Arm Tool



# NDI

Now, more than ever, the increasing demand for automated Non Destructive Inspection (NDI) Systems requires more advanced capabilities, opposed to traditional manual methods. Increase accuracy, reliability and productivity while reducing costs of NDI.

Genesis' NDI systems combine ultrasonic inspection data with robot positional data and present it as A-Scan, B-Scan and C-Scan images. With the NSpect robotic NDI System, inspectors can focus on interpreting the test data instead of performing manual inspections.



# Material Handling

There are many ways robotic material handling can streamline your manufacturing process; increase productivity, reliability and consistency. The robot handles the same way, each and every day.

Robotic material handling solutions offer several key benefits for your business.

- Improved cycle times
- Pin-point accuracy
- Increased productivity and reliability
- Enhanced ergonomics







## Cutting

Competition has never been tougher. Producing your parts faster and more accurately than ever before is possible. Genesis' automated cutting solutions can trim large contoured parts with your choice of plasma, laser, or thermal cutting solutions. Smaller 3D composite or steel parts can be cut with flexible waterjet technology.



## Adhesive Dispensing

Imagine being able to lay down 24-meters of highly viscous bead in 3.5 minutes. With an automated dispensing system it's more than possible. It's fact. Seam sealing and adhesive applications don't have to be the bottleneck in your process anymore. Automated adhesive dispensing is important; your business will experience a rapid ROI by leveraging the accuracy and consistency of robotic dispensing.



## Material Removal

From heavy grinding to finishing of composites, there is a robotic material removal solution that will fit your needs. Automated material removal processes lead to:

- Improved ergonomics
- Reduction in rework
- Diminished cycle times
- Increased production
- Enhanced safety

Robotic trimming, grinding, routing, and deburring—Genesis can develop a material removal system that fits any need.

# Automotive

Automotive robotic integration requires technology and know-how unique to the industry and business. Genesis' focus on innovation brings the decisive competitive edge you need for next generation part design and processing.

The Genesis Automotive Team of dedicated and experienced sales engineers, project engineers and program managers, will focus fully on your program from start to finish. We strive for consistent, familiar communication to make sure we exceed your expectations. Genesis has production facilities in the US, Mexico and Japan with fluency in English, Japanese and Spanish languages.

Proven success with:

- Axles (Banjo, Salisbury, & Trailing)
- Bumper Beams
- Control Arms
- Cradles
- Exhaust Systems
- Instrument Panels
- PTU/RTU Gear Laser Welding
- Seat Frames
- Side Impact Beams
- Steering Columns
- Shocks / Struts
- Tow Bars / Hitches
- Trailing Arms



# Aerospace

Now, more than ever, the increasing demand for automated robotic motion systems requires more advanced capabilities. Genesis has taken 30+ years of automation experience and successfully applied it to the Aerospace Industry with our NDI workcells. Advanced materials are being used, including carbon fiber, titanium alloys, aluminum, which produce lighter, stronger structures. Increase accuracy, reliability and productivity while reducing costs.

Machine Load is another function in which Genesis has streamlined manufacturing in the Aerospace industry. Airplane components need to be transferred into ovens and presses. Genesis provides systems and end of arm tools to ensure the process runs flawlessly.

- Structural Composite Components
- Non-Structural Composite Components
- Engine Components



# Heavy Industrial

Automation for thick plate heavy welding requires careful consideration. Custom configured multi-axis positioners are utilized to orient the part to ensure weld quality is at its best. Coordinated motion provides in-position welding to produce quality welds, increase travel speeds and reduce cycle times.

Automation goes beyond the following weld processes:

- High deposition tandem wire
- High deposition cored wire
- Adaptive fill
- Through arc seam tracking
- Low spatter welding
- Laser welding and cutting
- High deposition GMAW

Focused Resource for:

- Agriculture
- Construction
- Cylinders
- Lifts
- Rail Car
- Semi Trailers
- Truck & Bus



# Light Industrial

Robotic welding needs for light industrial companies center around products that use gauge material thicknesses. Genesis' engineers provide the competitive edge utilizing the latest welding technology. High speed welding, gap tolerance or high quality cosmetic appearance, we've done it all. Our solutions focus around cold metal transfer, low spatter GMAW, plasma, GTAW, laser welding, laser cutting and resistance spot welding.

- Furniture
- Turf Care
- Exercise Equipment
- Utility Vehicles
- Enclosures
- Appliances
- HVAC
- RV/Vehicle Access







- Cage Code 381R1
- DUNS # 15-114-7931
- ITAR Compliant

## Launch Center – Corporate Headquarters

8900 N Harrison Street

Davenport, IA 52806

563.445.5600

robots@genesis-systems.com

