

Machine Design, Integration, Build-to-Print & Assembly Services



Machine Solutions Inc. (MSI) has been instrumental in the automation of manual processes within the medical device industry. Solutions involve off-the-shelf technology where appropriate or new invention when needed. From simple to complex, small to large, manual to highly automated, MSI can provide the appropriate design and assembly solution.

The MSI engineering team has extensive experience designing and assembling machinery for a wide range of industries and automation requirements. Our global technical support network provides unparalleled after-sale support at the local level. MSI also offers OEM partnering for product/process improvement and enhancement.

Capabilities

- **Control systems.**
- **HMI programming.**
- **Industrial network interfacing.**
- **Linear and rotary motion.**
- **Feature finding & closed-loop feedback.**
- **Manufacturing work cells.**
- **Machine shop on-site.**
- **Build-to-Print.**



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MSI works with all current control system platforms and manufacturers. MSI's control services capabilities include design-only, build-only, design and build, installation, programming, troubleshooting, and control system retrofits.



Summary of Technology Platforms Utilized

<i>Control Systems Platforms</i>	PLC, PAC, PC
<i>Control System Manufacturers</i>	Allen-Bradley, Beckhoff, Keyence, Omron
<i>Human Machine Interface (HMI) Software</i>	Allen-Bradley, InduSoft, Omron, PanelView
<i>Industrial Network Controls/Interface</i>	MES, OEE, SCADA, Scimetrics, 21 CFR Part 11
<i>Motion Types (Linear)</i>	Lead screw, belt drive, stepper, servo, pneumatic cylinder
<i>Motion Types (Rotational)</i>	Planetary gear, rotary axis, pneumatic rotary actuator
<i>Feature Finding Systems (Manual assist & fully automatic)</i>	Blue Fox, Cognex, Keyence
<i>Part Location, Measurement & Inspection Systems</i>	Machine vision, laser micrometer, IR sensor, laser sensor
<i>Feedback Systems</i>	Rotary encoder, linear encoder, force feedback, lvdt scale potentiometer, thermocouple
<i>Accuracy</i>	Selected to match application requirements

Machine Design & Integration Industry Experience

Aerospace Industry

- Testing platforms.
- Process control systems.

Automotive Industry

- Handicap accessibility.
- Material handling.
- Process control systems.
- Quality control.
- Robotics.

Energy Industry

- Process control systems.
- Solar wafers.

Food Industry

- Dispensing.
- Packaging.
- Process control systems.

Medical Industry

- Assembly.
- Bonding.
- Device testing.
- Process control systems.
- Swaging.

Telecommunications Industry

- Chip packaging.
- Process control systems.

