LEONI Automation Systems Training

Customized Training Solutions
Systems Training
Training Equipment
Course Instruction
LEONI automation systems training

LEONI specializes in technical training, emphasizing hands-on learning methods with easy-to-understand, well-written courseware. We offer a full range of training options, from delivering courses to course creation, even book printing, all done in-house by our expert staff. Trying to start a technical training program? We have assisted many clients in building comprehensive programs from the ground up. LEONI is a proprietary school licensed by the state of Michigan and has trained more than 20,000 students.

Why choosing LEONI Training is right for you

We know that investing in training is expensive, and having your workforce armed with the right skillset to troubleshoot your equipment can make the difference between success and failure in eliminating downtime. There are five reasons that set LEONI Training apart from others:

1. **We offer a customized training solution.** Our training is customized to your facility's programs and applications, offering flexible topics and curriculum, not a generic “canned” training course with little relevance to your workforce's needs.

2. **We take a systems approach to training.** We cover more than just the pieces — robots, PLCs, drives, conveyors, and field devices, for example. We can cover your entire integrated automation system, and how to troubleshoot from HMIs, down to the component level.

3. **Our training is flexible.** Courses can be hosted at your site with our mobile training equipment, at our training center, or through our college partners.

4. **We teach applications and processes.** Not only is the hardware itself important, a thorough understanding of what it does is equally critical, regardless if it's material handling, palletizing, flow processing, machining, welding, or stamping.

5. **We guide technology migration:** We can show your workforce how to transition from one technology to a newer one. Because our instructors have decades of experience and are cross-trained on multiple technologies, we can do something unique: take your workforce's existing knowledge and tie that into how the new automation is different (for example, migrating to Siemens from Rockwell). This not only saves time but also reinforces confidence in your workforce.
LEONI systems approach to training

1. **We customize to your facility’s applications and programs, offering a plant-specific training focus.**
   Rather than offer generic product training courses, we take the time to review your facility’s applications and programs and incorporate them into the class. This ensures that your training is effective and on-target to your needs.

2. **We are not the OEM. We train you on the total system.**
   Because we don’t make robots, controls, or applications, our training is unbiased, which is very important. We will cover all aspects of your system, including technical concerns most companies would not discuss. We want to ensure your staff is familiar and comfortable with maintaining the system you have by offering a complete training package that covers your facility’s applications and standards.

**System training overview example**

The following example is shown with an Allen-Bradley PLC. This same total systems approach can be taken with Allen-Bradley and Siemens controls, FANUC, ABB, KUKA robotics, and any external applications.

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Our customers’ needs come first, which is why we only develop custom training programs, delivered at your site or at our training facility.
Assessing your skills gaps and training needs with the LEONI Training system

A turnkey systems approach to addressing training needs

<table>
<thead>
<tr>
<th>Analysis phase</th>
<th>Design, creation</th>
<th>Delivery</th>
<th>Post-Delivery</th>
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<tbody>
<tr>
<td>Define student population and skill levels: Maintenance team, engineers, operators</td>
<td>Technology topics: PLCs/robots/drives/HMIs</td>
<td>Customized training solution: Materials created, course scheduled</td>
<td>Training delivered</td>
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<tr>
<td>Applications: material handling, welding, etc.</td>
<td></td>
<td></td>
<td>Training solution evaluated/modified</td>
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Course feedback allows dynamic evolution in a continuous improvement process

Your place or ours, LEONI delivers training you need

LEONI adapts to your specific needs. We offer a total suite of courses at our training studio in Lake Orion, Michigan, from custom courses tailored to your facility’s needs and standards to open enrollment courses when you can only send a few students at a time. Or we can come to your facility and train on your equipment or on custom equipment we supply based on your production lines.
Custom curriculum and documentation

Do you have a custom training need that is not covered in a standard course or require specialized documentation for your particular process? LEONI can help. We have created a multitude of custom-designed courses, curriculums, PowerPoint presentations, and reference aids.

Front-end analysis

By performing a front-end analysis, we can build your training program on a well-informed foundation. From tabletop needs analysis to an in-depth detailed task analysis, LEONI can tailor the right level of assessment and provide the right training for your people.

- Training needs/gap analysis
- Job analysis
- Task analysis

Training outsourcing

Need additional resources for your training needs? You can outsource your entire training operations to LEONI, or pieces of it, regardless if it is for your own employees or end-users of your products and services.

- Training project management
- Training administration and record management
- Curriculum design
- Documentation and curriculum printing
- Skills and needs assessment
- Training delivery
- Testing and certification
- Training equipment management
Train the trainer programs (T3)

LEONI Automation Training offers Train the Trainer (T3) programs that can enable your facility to effectively deliver great training coached and guided by our subject matter experts.

Automation technologies offered

**Robotics:** Most major robot manufacturers
- Operations and operational troubleshooting
- Programming
- Electrical maintenance and troubleshooting
- Mechanical and preventive maintenance

**PLC programs for Rockwell and Siemens:**
- ControlLogix/GuardLogix programming, maintenance, and troubleshooting
- PLC-5 and SLC-500
- Step 7 programming, maintenance, and troubleshooting
- Hardware troubleshooting

**HMI and interfaces:** Siemens, Rockwell
**Communications:** DeviceNet, EtherNet/IP, PROFINET, PROFIBUS, PROFIsafe, Remote, I/O
**Variable frequency drives (VFD):** PowerFlex 70/700/753/755, Kinetix, ArmorStart, SINAMICS G120 and S120

K2XX truck launch: General Motors and LEONI team up for success

K2XX is the name of the General Motors vehicle architecture designed to underpin its 2014 pickup trucks and full-size SUVs. The truck launch was one of the biggest in GM’s history, and LEONI Training as well as LEONI robot dress packages were there to help.

The truck platform — engineered for strength, durability, and reliability — was utilized in the 2014 Chevrolet Silverado and Sierra pickups. Future vehicles look to include Chevrolet Tahoe, Suburban, Yukon, Cadillac Escalade, Silverado Heavy Duty (HD), and GMC Sierra Heavy Duty (HD) trucks.

All three U.S. plants involved in this critical product launch had LEONI Training as its chosen provider of technical training. Topics covered included robotics, controls, drives, and system/cell troubleshooting and maintenance. More than 300 students completed a combined 1,200 weeks of
training curriculum. Additional courses were developed to meet ongoing needs.

The comprehensive training curriculum LEONI developed, which was customized to GM K2XX programs and applications, used plant-floor program files and GM architecture and standards for hands-on labs. Classes were custom tailored for each site. GM Flint Truck, GM Fort Wayne, and GM Arlington all had specific needs, and each site worked closely with our training team to make the classes successful. Students completed pre- and post evaluations and provided excellent input on how to continuously improve the training.

“LEONI provided our plant with the right training on the right topics, when we needed it. Their great instructors, custom programs, and state-of-the-art robotics and PLC training equipment really made excellent classes,” said David Groulx, UAW Training, GM Flint Truck Assembly.

The Applied Troubleshooting (AT) curriculum covered operation, troubleshooting, and recovery procedures required to maintain General Motors’ plant-floor cells and stations.

LEONI Training can be targeted for operators, skilled trades, and/or engineers. Depending on the target audience, participants can learn basic equipment operation and fault recovery all the way to gaining an in-depth understanding of the “handshake” between the PLC and the robot controller and other devices, along with how to trace faults across multiple cells and more.

Applications

- Material handling
- Spot and arc welding
- Advanced material joining technologies (flow-drill screw, riveting, clinching)
- Dispense
- Waterjet cutting
- Laser applications
- Thermal plasma spray coating
- Drilling
- Polishing
- Grinding
- Machine vision
- Stamping and press systems

Industries served

We serve a wide range of industries, including:

- Automotive
- Aerospace
- Metal and plastic processing, stamping, forging, fabrication, molding
- Municipal water systems (water and wastewater); CEC certified and accredited in Michigan and Wisconsin
- Paper processing
- Food, beverage, and packaging industry
- General and heavy manufacturing