People can control the world.

Literally.
Every day, in every area of our country, companies are searching for talented minds to help move them into the future. Encourage your students and transitioning workers to become automation professionals, and open their eyes to a career they can be proud of.

So, what IS automation, anyway?

**Automation is the creation and application of technology to monitor and control the production of goods and services.**

Have you watched a TV, driven a car, used running water, listened to an iPod, or worked on a computer lately? Nearly every modern convenience (or necessity) is the result of complex processes. Without talented individuals to design, build, improve, and maintain these processes, modern inventions could never have happened and future innovation would be impossible. Without automation professionals, our world and our future would be very different. Automation professionals literally “control” the world.
Automation professionals work in all kinds of careers, including:
Aerospace
Automotive
Chemical and Petroleum
Computer Technology
Construction and Design
Cybersecurity
Electro-Optics
Environmental
Food and Pharmaceutical
Glass and Ceramics
Management
Marketing and Sales
Mining and Metals
Nuclear
Power Distribution
Process Measurement and Control
Pulp and Paper
Robotics and Expert Systems
Safety
Sensor Technology
Systems Integration
Telemetry and Communications
Test Measurement
Textiles
Water and Wastewater
Wireless Applications
The opportunities in automation are endless, but most jobs fall into four major categories.

**Engineering and design** professionals research, design, build, and operate various systems and instruments to measure, control, and automate manufacturing processes.

**Industrial cybersecurity professionals** help prevent potentially catastrophic cyber damage to the systems and networks used in critical infrastructure, which include power generation, water treatment, petroleum and chemical processing, and other vital operations.

**Sales engineering** professionals advise and assist clients and customers on the application, purchase, installation, and maintenance of available products and systems. They help companies improve efficiency, output, and safety.

Automation professionals interested in **management** careers rise to leading positions throughout the numerous manufacturing and industrial processing sectors of the global economy.

**Control Systems, Instrumentation/Maintenance, and Automation Technicians** play key roles in installing, maintaining, troubleshooting, and repairing various components of automation systems. Industrial cybersecurity professionals help prevent potentially catastrophic cyber damage to the systems and networks used in critical infrastructure, which include power generation, water treatment, petroleum and chemical processing, and other vital operations.

**Automation professionals can be found in many major global companies,** like The Dow Chemical Company, Shell, Sara Lee, Hershey Foods, Eli Lilly, DuPont, GlaxoSmithKline, Emerson Process Management, Honeywell, Siemens, GE, and more.
Dispelling the Myths: Cool Jobs in Automation

Picture your future student or job seeker. Do you think he or she would be attracted to jobs like this?

**Now Hiring: Urgently needed!**  
**Industrial Cybersecurity Technician** to help assess, design, implement, operate, and maintain the cybersecurity defenses within industrial plants and critical infrastructure. Guards against cyberattack that can disrupt safe plant operation and put the environment, economy, and lives in jeopardy.

**Now Hiring: Great Opportunity!**  
**Automation Engineer** to design a computer interface to control real equipment in real time. Position utilizes graphics technology and gaming functions to develop graphics for application in advanced manufacturing environment.

**Now Hiring: Needed Today!**  
**Robotics Professional** to build multifunctional, programmable machines. Position utilizes computer science, applying artificial intelligence and engineering methods to develop robots that perform a variety of functions.

**Now Hiring: Start immediately!**  
**Automotive Manufacturing Technician** to operate, install, maintain, and continuously improve the machinery, processes, and production systems that produce hybrid and next-generation electric automobiles.

**Now Hiring: Wanted now!**  
**Life Support Analyst Manager** to automate mechanical processes for animal environments at major theme park.

**Now Hiring: Competitive salary and benefits!**  
**Environmental Project Engineer** to design systems that automatically sample, measure, record, and report environmentally harmful toxic gas emissions from power generation processes. Works to develop innovative solutions for environmental problems and concerns.

The automation profession has a broad, diverse offering of well-paying, highly rewarding, technically-savvy jobs—and the demand for professionals to fill those jobs has never been higher.
Building the Automation Generation: The Key to Remaining Competitive in a Global Economy

Opportunities abound in the automation profession, today and well into the future. The baby boomer generation is retiring, and we don’t have skilled replacements. More than 65% of surveyed U.S. manufacturers have already experienced a “moderate” to “severe” shortage of engineers and scientists, and that number is expected to increase substantially in the next few years.

Because the demand for qualified employees in automation and engineering far outstrips availability, career prospects are bright for young people who are capable in science, technology, engineering, and mathematics (STEM).

Leading the Way for a Brighter Tomorrow

Companies and manufacturers cannot possibly succeed in the long term without attracting talent from future generations. These are well-paying positions that deliver excellent opportunities to invent, explore, and create new ways of making our economy, our society, and our world better.

Career prospects are particularly bright in the area of industrial cybersecurity. In fact, the demand for cybersecurity professionals is growing 12 times faster than the job market overall.
Together, we can make a difference. You can make a difference in the economy and the competitiveness of our country, and you can make a difference in the lives of our students and workers. You can invigorate them, excite them, and motivate them. You can show them the path to success. You can show them the real American dream—to have the kind of career that continually motivates and inspires you—the kind of career that makes them wake up before the alarm each morning.

Help us create the automation generation.

Visit us at www.automationfederation.org/InControl.
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Email us at info@automationfederation.org.
About the Automation Federation
The Automation Federation is a global umbrella organization of sixteen (16) member organizations and six working groups engaged in automation activities. The Automation Federation enables its members to more effectively fulfill their missions, advance the science and engineering of automation technologies and applications, and develop the workforce needed to capitalize on the benefits of automation. The Automation Federation is the “Voice of Automation.” For more information about the Automation Federation, visit www.automationfederation.org.