



Investments in next generation of STEM

Advances in automation and technology are useless without advances in talent. In an Accenture study of CEOs, more than 75 percent said it's important to harness new data for innovations or they'll lose market share. But more than half noted they don't have the right talent to do it.

Without skills and talent, the promise of The Connected Enterprise goes unfulfilled. We must invest in people, education, and training as much as we invest in technology. From school children to college students and new hires to experienced professionals, we focus most of our philanthropic support on workforce development. We inspire innovative thinkers and problem solvers, seeding the next generation of STEM (science, technology, engineering, and math) leaders and fostering a passion for lifelong learning.

STEM EDUCATION

We start with programs that spark interest in STEM education and careers with a strategic emphasis on underrepresented students, especially young women. We partner with leading nonprofits *FIRST*® (For Inspiration and Recognition of Science and Technology), Project Lead the Way, and MIND Research Institute (ST Math), to make STEM exciting, fun, and yes, cool.

Since 2006, we've committed more than \$25 million to *FIRST*, which provides after-school STEM programming. In 2018, we continued to expand our global involvement. We sponsored a team for Singapore's *FIRST* LEGO League (FLL) from TOUCH Community Services, a nonprofit we've supported for years. We also sponsored the Singapore National FLL Championship. About two dozen of our Singapore employees volunteered as mentors, coaches, judges, and referees.

In Australia, we sponsored three *FIRST* Robotics Competition teams and one FLL team. Kerryn Sakko, senior application engineer and our Australian STEM lead,



- 64% Education
- 18% Health and human services
- 10% Civic
- 8% Arts and culture

is one of several employee volunteers. "I get to help kids grow and gain social and technical skills through STEM," she said. "What they manage to build is incredible. Their troubleshooting skills and ability to think outside of the box is true innovation."

For the first time, we sponsored the FLL India program. Our Global STEM Ambassador Jay Flores attended India's FLL National Championship and our colleague Mukta Misra was a keynote speaker. India employees also served as event judges. Jay's India stop was part of an Asia Pacific tour that included several visits with colleagues across the region who are active in STEM activities.

"By supporting our efforts with *FIRST* locally, our employees grow personally and professionally while also making a significant contribution to developing the future talent of our industry," Jay noted. "What we're doing through our STEM work is making sure we're getting into our communities and reaching kids at younger ages when we can encourage their curiosity so that it may lead to a lifelong passion."

Rockwell Automation FIRST season highlights

215 SPONSORED TEAMS
Including at least 1 mentor per team

65 FIRST Robotics Competition	24 FIRST Tech Challenge	108 FIRST LEGO League	18 Junior FIRST LEGO League
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300+ VOLUNTEERS

Supporting teams and competition events



FIRST LEGO League India Team

Supporting education and inspiring STEM in China

Area school students joined the children of our Greater China office employees at our Shanghai Research Center labs for a day of experiments and other activities designed to arouse their interest in STEM. More than 50 of our Shanghai colleagues also serve as volunteer tutors assisting children with homework. In 2018, these employees provided more than 140 hours of tutoring.

Rockwell Automation helps launch MathMINDS Games

Students from our K-8 Milwaukee partner schools, Escuela Vieau and Rogers Street Academy, were the first to experience the MIND Research Institute's newest product, MathMINDs Games. The storybook board games combine math, history, and literacy in a highly connected experience for educators, students, and families. We funded "South of the Sahara," the first suite featuring games based on events from Ghana, Mozambique, and Madagascar.

"With MathMINDs Games, students will be able to see how math has a presence everywhere and in everything," said Brett Woudenberg, MIND's Chief Executive Officer. "The games will allow students to access math beyond the classroom and build a positive relationship with math that will later equip them for the challenges they'll face in higher education and the STEM workforce."

The game earned a 2018 Academics' Choice Award™, the leading international educational award honoring excellence in mind-building media and toys.



Girl CODE: Adventures in Programming

Middle school girls built their own websites at the first-time Adventures in Programming summer camp developed by Maydm, a nonprofit providing girls and youth of color with skill-based training for the technology sector. The camp was hosted at Milwaukee School of Engineering, providing the girls with the opportunity to be on a college campus.

Campers also visited our company and met with some of our female colleagues to learn about career opportunities and gain insights about women in the workplace. We hosted the camp's final day celebration. The girls demonstrated their websites to a large audience of family members and community and business leaders, including our Chief Technology Officer, Sujeet Chand.



FIRST student and mentor returns from international internship

From Riverside RoboTiger to international intern, Javion Mosley's STEM experience has taken him from Milwaukee, Wisconsin to Shanghai, China. A graduate of Riverside High School and *FIRST* member, Javion now mentors his former team. He's also a junior at University of Wisconsin-Milwaukee (UWM) and an application engineering intern at Rockwell Automation. This past summer Javion spent three months at our Shanghai Jiao Tong University (SJTU) automation lab and our Shanghai plant as part of an international student exchange internship program we started with UWM and SJTU in 2016.

"I have a perspective from a different culture that will influence what I do for the rest of my life," Javion said. "Our company invests in its people. This was an opportunity for me to learn and bring that learning back to my job."

Javion also interned with us as part of our high school internship program, an opportunity suggested by his Rockwell Automation *FIRST* mentor Emily Ralph.



HIGHER EDUCATION

The skills industry needs today are different from what we learned, and what's needed tomorrow will be different from what's taught today. To help develop a global talent pipeline with students prepared for careers changing as fast as technology itself, we have more than 150 automation learning labs worldwide.

Together with industry leaders, including Microsoft Corp., PTC, Ansys, FANUC, Cisco, Endress+Hauser (E+H), Amatrol, and FESTO Didactic, we partner with universities and colleges to introduce students to real-world challenges and solve actual customer problems. Students use the same advanced industrial automation technologies found in today's modern, connected manufacturing operations.

"I'm gathering data from real factories right now to use in a course," said Sangkee Min, an assistant professor of mechanical engineering at the University of Wisconsin-Madison, home of recently opened Rockwell Automation Industrial Connected Enterprise Laboratory. "The students will be able to use the lab to model what happens on real factory floors."

Located within the College of Engineering, "The lab is and will be a space that connects people with ideas and technology, serves as a springboard for innovative research and solutions, and adds an additional level of knowledge and preparation for our students," noted Dean Ian Robertson.

At University of Wisconsin-Milwaukee (UWM), construction continued on The Connected Systems Institute, the state's first comprehensive academic industry consortium involving IIoT (Industrial Internet of Things) technologies. Scholars and industry will collaborate on developing new technology applications. Companies will be able to test concepts, train employees, and share cutting-edge ideas. Students will get hands-on learning.

The institute is a multidisciplinary collaboration between UWM's College of Engineering & Applied Science, Lubar School of Business and Lubar Entrepreneurship Center, as well as Rockwell Automation and Microsoft, along with others. The institute opens spring 2019.

In China, the Ministry of Education and Association of Automation named us Automation Company of the Year and Automation Person of the Year for our work to develop a Smart Manufacturing certification program. FANUC, E+H, and Cisco partnered with us to introduce the certification, which will be available at Ministry of Education-designated universities. The program is in addition to the more than 70 automation labs we have in that country.

Global network of automation learning labs

30,000
students annually

150+ Labs

90+ Asia

50+ Americas

5+ EMEA

