

TARGETING OUR RESOURCES FOR GREATER IMPACT IN STEM

Our philanthropic strategy is shaped by industry, company and community needs. Our holistic approach makes the best use of Rockwell Automation capabilities, improves the quality of life in our communities and creates a talent pipeline for our company and industry. To ensure a skilled workforce, one that reflects the diversity of our customers and partners, we focus on improving and increasing STEM (science, technology, engineering and math) education, particularly among young women and underrepresented groups.

At the same time, we know we must contribute to the vibrancy and sustainability of our communities through support of programs that provide basic services, offer arts and cultural opportunities, foster civic leadership and aid during disaster.

Continue reading to learn about our STEM Strategy, STEM Partners (FIRST, PLTW and ST Math) Post-Secondary Education programs and our STEM Ecosystem.

Rockwell Automation



For more than a decade, our philanthropic approach has been aligned with our global business strategy and future workforce needs. Rockwell Automation is at its core a technology company and innovation requires a diverse, skilled workforce.

We also recognized at that time large demographic shifts were taking place in the global workforce, particularly given the aging population in the U.S. The availability of engineers and skilled technical talent was anticipated to become even scarcer, diminishing our talent pipeline.

Our conclusions on competitive pressures were set against the backdrop of a study referred to as the "Gathering Storm." The report focused on the ability of Americans to compete for jobs in the evolving global marketplace. STEM education was identified as a critical aspect of innovation and competiveness and it was clear that the U.S. was falling behind when compared to other countries.

Stronger and more dedicated support for K-12 through post-secondary STEM education was a natural fit for our company — foundational to the engineering of our products, services and solutions.

With our innate innovation skills and talent needs, we knew we could make a greater impact on our educational system by focusing our resources — including financial support, expertise and products — on key schools (urban areas) and universities.

To provide greater impact on select organizations, we began by reducing almost 60 percent of the grants we awarded, allowing us to increase grant amounts by 80 percent.

This focus allowed us to deepen our relationships with educators and academic institutions, build stronger partnerships in our communities and leverage the skill of our employees as mentors and role models.

Creating a STEM Education Pipeline

Our goal then and today is to build a pipeline of diverse public school students who are interested in pursuing a STEM education and ultimately, join Rockwell Automation as well as our industry partners and customers.

With our company's expertise in innovation and technology, we selected program partners with a proven track record to fulfill the educational need — partners that are experts in their fields.

Through STEM programs like *FIRST*® (For Inspiration and Recognition of Science and Technology) Project Lead the Way (PLTW), and ST Math, we are furthering our goal and building connections to support STEM education and corporate sustainability, with in-school and afterschool programs.

Both FIRST and PLTW were cited as model programs in the Harvard University "Pathways to Prosperity" report.



► FIRST is our after-school program of choice, proving extra-curricular mentor-based activities for young people worldwide. Over the last 10 years, our company has been a proud FIRST Strategic Partner. We re-affirmed our commitment in 2016 by making a four-year \$12 million commitment.

The mission of *FIRST* (For Inspiration & Recognition of Science & Technology) is to inspire youth to become science and technology leaders and innovators, by engaging them in exciting, mentor-guided programs that build science, engineering and technology skills, inspire innovation and foster well-rounded life capabilities including self-confidence, communication and leadership. *FIRST* progression of programs; *FIRST* Robotics Competition (FRC), *FIRST* Tech Challenge (FTC), *FIRST* LEGO League (FLL) and Jr. FLL, reaches nearly 500,000 young people worldwide.

In a FIRST Longitudinal Study, the results demonstrate that FIRST participants show positive, statistically significant impacts on all STEM-related measures.

Our support of STEM programs like *FIRST* are the best investment we can make for our company and industries future. We support multiple *FIRST* activities, competitions and awards, including:

- · Global sponsorship of FLL
- Innovation in Control Award sponsored by Rockwell Automation
- Sponsorship of 200+ sponsored FRC, FTC, FLL and Jr. FLL teams with engaged Rockwell Automation employee mentors
- Donation of products for all FRC teams (Kit of Parts) and all FRC Competition Playing Fields

In addition to financial and in-kind support, employees share their expertise by volunteering as team mentors, subject matter experts, judges and referees. Many of our employee volunteers are former *FIRST* participants and continue their involvement by serving as program mentors and volunteers. We support our *FIRST* volunteers with a dedicated intranet resource site and reimbursement for travel to competitions.

As the *FIRST* program continues to grow globally and more participants pursue post-secondary certifications and/or degrees, we are creating greater awareness of Rockwell Automation as a partner and potential employer. Leveraging our FLL global sponsorship, we are working with our regions to expand support globally.

Urban outreach

Understanding the challenges our urban students face, we provide additional support to address these needs such as, t-shirts, food, transportation, supplies, extra scrimmages and more. We also know that aside from their coaches, students in our urban initiative programs have less access to mentors and subject matter experts, let alone engineers who look like they do. So, we engage our employee resource groups. From the near-peer young professionals, to our ethnically diverse groups, these individuals' unique experiences and perspectives resonate and impact the students in many ways.



▶ PLTW is our in-school program of choice in the U.S. This nationally acclaimed, hands-on pre-engineering curriculum for elementary, middle and high school students promotes critical thinking, creativity, innovation and real-world problem solving.

Rockwell Automation helps educators bring STEM education directly into the classroom through our partnership with Project Lead the Way (PLTW). PLTW is a nationally acclaimed hands-on pre-engineering program to inspire and empower K-12 students. PLTW programs are designed to appeal to all students, from those who are already interested in STEM to those not yet interested in traditional science and math curricula. Courses help students make the critical connection between STEM principles and solving real challenges in our communities and the world.

Our investment in PLTW supports labs, evaluations, teacher professional development and recognition with our Ohio and Wisconsin public partner schools. In addition, Rockwell Automation employees mentor in PLTW classrooms.

Focus on Public Schools

PLTW Ohio has more than 300 registered programs in the region and we have partnered with sites in the Cleveland area including MC2STEM, East Technical and Garfield High Schools.

Milwaukee Public Schools (MPS) is among the largest districts in the U.S. in terms of the number of PLTW programs offered. Even more impressive is the fact that 86 percent are children of color and 48 percent are female. In partnership with the MPS Division of Career and Technical Education, we developed a plan to support two K-8 MPS partner schools, Rogers Street Academy

(RSA) and Vieau School, located in the vicinity of our Milwaukee, WI headquarters. Support to implement PLTW in these schools was included in this plan. Statistics show that these grades are key years for students in determining how strong a background they will develop in technical fields.

In 2015, a STEM Center opened at RSA. The adjoining Boys and Girls Clubs provided two rooms for use during and after school for a fully equipped computer lab and project lab. Because many of the students who use the Center during the day for PLTW and other STEM activities also participate in the Davis Club after-school activities, the collaboration between the school and Club offers a unique opportunity to extend their learning. This will become a differentiator for RSA and Davis Club, helping support student and staff recruitment and retention.

Our partner school model also includes two key high schools, Bradley Technology and Trade, and Riverside. Results show that students in PLTW programs consistently score higher than their peers on national reading, science and math exams. In the fall of 2012, we nominated Bradley Technology and Trade high school to receive a PRIME (Partnership Response in Manufacturing Education) school designated from the SME Education Foundation.

Professional Development

Professional development for teachers is essential to the success of PLTW. All teachers complete a two-week training session and must successfully complete core training for every PLTW class they teach. Our support includes funding for this core training session for PLTW teachers from our partner schools.

Recognizing that teachers are pivotal to student success and inspiration, we know there is an increased level of difficulty in teaching problem-based curriculum and that it requires additional subject matter knowledge.

We support and recognize PLTW education partners and participants throughout the year in a number of ways:

- Sponsor the Wisconsin PLTW Engineering Design Competition
- Provide support for a MPS PLTW coach to help teachers with implementation and effective practice sharing
- Ensure opportunities for students and teachers to interact throughout the year with Rockwell Automation employees either in the classroom or at our facilities
- Provide summer positions for teachers
- Host recognition events at local cultural and sporting venues including; Discovery World, Bradley Center and Miller Park
- Provide Rockwell Automation classroom items (mouse pads, flash drives, etc.)





Evaluation

A key component of our PLTW funding was a longitudinal study of students in the program by Drs. White and Heywood from the University of Wisconsin-Milwaukee. This complemented a study of high school participants by Dr. Phelps of the University of Wisconsin-Madison Center on Education and Work.

Key findings are:

- PLTW students take more math credits as seniors than non-PLTW peers (Phelps)
- High school PLTW students have higher attendance rates than non-PLTW peers (Phelps)
- PLTW students are more likely to score proficient than peers on 10th grade Wisconsin Knowledge and Concepts Examinations (Phelps)
- PLTW, over three years, appears to reduce and eliminate gaps in educational achievement and attendance at entry into middle school (White)

The partnership between Rockwell Automation and PLTW in Wisconsin is a model for the development of project-based, hands-on learning in STEM education. This partnership has been emulated throughout the PLTW network. We're proud that our approach has been adopted by other regions and school districts.



➤ Rockwell Automation added ST Math, created by the Mind Research Institute, as a strategic STEM partner in 2016. ST Math uses game-based instructional software to boost math comprehension and proficiency for K-12 students.

MIND is a non-profit social benefit organization with the mission to ensure that all students are mathematically equipped to solve the world's most challenging problems. The non-profit was founded in 1998 by scientists from the University of California campuses in Berkeley, Irvine and Los Angeles. These researchers came together to apply neuroscience findings indicating that children interacting with software games using visual, language-independent animation to learn math concepts showed significant improvement in their ability to conduct spatial-temporal reasoning, or the ability to manipulate objects in space and time. These results prompted the scientists to found MIND Research and further develop the visual learning-based Spatial-Temporal (ST) Math® software for use in K-12 schools. Using interactive visual representations of mathematical concepts, ST Math improves spatial-temporal reasoning and math proficiency, while making math fun.

ST Math was recognized by the Business Roundtable as, "an outstanding program that demonstrates a strong potential for helping prepare more K-12 students for college and the workforce." The Business Roundtable is an association of chief executive officers of leading U.S. companies working to promote sound policy and a thriving U.S. economy. Keith Nosbusch (Chairman) and Blake Moret (President and CEO) are actively involved with the Roundtable and have committed to allocating 10% of our education spend to support the ST Math program. ST Math has repeatedly proven to double or triple the growth in math proficiency on state tests. Programs such as ST Math help to address the Business Roundtable's work around how to close the skills gap.

With our support, over 1,600 students at our two K-8 partner public schools, Rogers Street Academy and Vieau School have benefited from ST Math. Through our partnership with ST Math, we host "Family Math Nights." During these events, MIND's goal is to bring math to life by engaging youth and adults through hands-on activities that deepen their interest and appreciation for math and STEM. The Family Math Nights impact 600+ participants including students, families, educators and Rockwell Automation employee volunteers. These events generate a tremendous amount of interest and enthusiasm from the communities impacted.





Our Community Relations and University Relations teams partner closely to ensure our grade K-12 and 13-to-hire strategies link to create a seamless talent pipeline. Our post-secondary scholarship and internship programs give preference to students from our partner MPS high schools who have participated in PLTW, FIRST, ST Math or other STEM programs.

At some companies, an internship or co-op opportunity is a short-term summer job. With Rockwell Automation, it's a chance to launch a career.

We position our internship and co-op positions as opportunities to select and cultivate top talent for future employment with our company, customers and/or distributors.

Other opportunities also offer growth and development for aspiring young professionals, such as networking events with executives, our Scholars Reception, Intern Day of Action with United Way of Greater Milwaukee to seminars on professional skills.

The Rockwell Automation internship program provides real world experience that augments classroom training. In addition, we have funded pre-college programs at University of Wisconsin-Madison and Milwaukee School of Engineering to expand the pipeline.

These programs engage our university campus managers and executives as well as our University and Community Relations teams to support our scholars/interns and university partners. It's a high-touch approach that is getting results.



Our people are our greatest advocates and ambassadors, so with many of our partners we augment monetary contributions with employee involvement to provide thought leadership and support.

We also encourage other funders, particularly large corporations, to support STEM education. We help build organizational capacity for *FIRST*, PLTW and ST Math at local, national and global levels by increasing awareness and encouraging STEM support from all sectors – public, private government and education.

Discovery World

Discovery World connects innovation, science, technology and the environment with exploration and learning through interactive exhibits and experiential learning programs. This educational hands-on venue supports our STEM education strategy and is utilized by many of our youth-serving community partners.

We are a longtime partner and in 2014, we made a three year, \$2.5 million catalyst grant to enhance the Rockwell Automation Dream Machine exhibit. Additionally, our Society of Women Engineers Chapter hosts a special evening during Girls & STEM for over 500 Girl Scouts showcasing our exhibit, connecting concepts that motivate girls to explore and pursue careers in STEM.

Boys & Girls Clubs

We continue to focus our Boys & Girls Club funding and support to ensure sustainability, viability and relevance for the Davis Club, near our corporate headquarters primarily serving African American and Hispanic Youth. Our support includes STEM programming, primarily focused on *FIRST* LEGO League teams and coaches as well as ST Math. Along with monetary resources we incorporate our employees' time and talent. We bring our employees to the Clubs to contribute their expertise to special events and as mentors for FLL teams.

STEM Forward

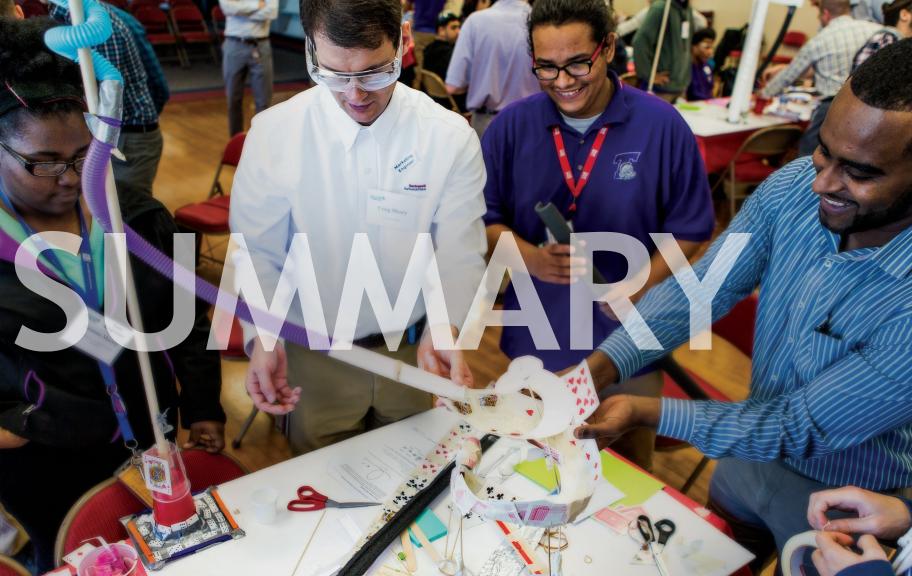
Rockwell Automation is a founding partner of STEM Forward, a leading organization addressing STEM education outreach and talent development in southeastern Wisconsin. We are a proud supporter of the SySTEM Now (Strengthening our Youth in Science, Technology, Engineering and Math) annual conference, a cornerstone of STEM-related awareness in our region. In 2011, we partnered with STEM Forward to develop "Day of Engineering." This program was successfully implemented at our select partner schools, engaging our employee volunteers to speak to PLTW classes about STEM education, engineering careers and opportunities within the company.

Hour of Code

The Hour of Code is part of a global initiative to reach students in an effort to inspire interest in computer science. Each December during Computer Science Education Week, employees are encouraged to share an hour of their time in local schools to assist the teaching staff or mentor students in a computer science activity.

Manufacturing Day & Engineer's Week

During these national recognition events, held on a designated day and week of the year, we invite students to our offices to engage them in tours and a creative, hands-on manufacturing related activity. Employee volunteers develop an interactive program for high school and early college students, teachers and counselors to encourage interest in STEM careers and promote Rockwell Automation within the community.



Through the original "Gathering Storm" report on competitiveness with its subsequent versions, we know the outlook for America's ability to compete for quality jobs continues to deteriorate.

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Overcoming this perilous trend will take all sectors working together — public, private, government and education — to make real progress. We believe large corporations like Rockwell Automation can make an impact by focusing their resources and expertise where they can make the greatest difference.

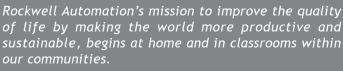
Rockwell Automation recognizes that our future depends on the diverse students of today to help fill the workforce skills gap. We are engineering our future and inspiring young minds for STEM careers through FIRST, PLTW and ST Math. Our company is making a sincere commitment to students

who would otherwise not be encouraged to explore STEM education.

From focused efforts with K-12 students to college internships and connections, we are seeing success in this effort and opportunities continue to surface.

> We took another step to further our commitment in 2016 with the creation of a STEM Ambassador role within our company. This role is dedicated to engaging and motivating STEM students to become tomorrow's innovators, as well as networking across industries and organizations to support STEM education efforts.

of life by making the world more productive and sustainable, begins at home and in classrooms within our communities.





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For more information on Rockwell Automation, visit rockwellautomation.com