

## **STEM Goes Back to School**

Labor Day is generally considered the unofficial end of summer. It also marks the time of year when students from kindergarten through college head back to school.

Education is always a hot topic in America. From standardized testing to student loan debt to core curriculums, how to best prepare students for life and work seems to always invite debate.

For the past few years, there has been the increased promotion of STEM (Science, Technology, Engineering, and Math) education to increase the number of students pursuing career paths in scientific and technical disciplines. Proponents of STEM-based curricula often cite the need for a future workforce capable of meeting the demands of a data and technology driven world economy.

While math and science test scores for American students have been slowly improving, the United States still ranks in the middle of the pack internationally (Hong Kong and Singapore hold the top spots). The challenge is to not only get students to study STEM subjects, but to provide hands-on projects, mentoring and collaboration with industry.

"The process controls industry has truly been pushing STEM," said Mike Marlowe, Managing Director and Director of Government relations for the Automation Federation. "STEM is a key element in educating well-rounded students about career paths in automation."

Organizations such as FIRST (For Inspiration and Recognition of Science and Technology) and Project Lead the Way work with students and teachers at the K-12 levels to create learning environments that spark interest in scientific and technical subjects. Higher education is also getting involved. Olin College of Massachusetts features a curriculum based around hands-on engineering and design projects. An increasing number of community colleges are offering certification programs in technical disciplines like factory automation and process controls.

Mike Marlowe of the Automation Federation believes efforts to promote STEM based learning must not only continue but increase. "STEM students are vital in all types of automation industry pathways," he said. "We have to have subject matter experts come to the schools and describe in practical detail what type of careers these studies can lead to."

MCAA has pledged its support to assist our members in encouraging young people in their communities to study STEM subjects. We will also partner with companies and other organizations to encourage students to choose careers within the process controls industry. MCAA's website features videos detailing why careers in process controls are both vital and rewarding. Check them out under Workforce Development Initiatives on this site.