**FIRST®, Cisco Systems Bring Innovative Learning to 12 Arizona Schools**

**AT A GLANCE**

**Background**
Arizona’s Yuma County is a rural region along the Mexican border. Inspiring students at a young age to engage in their own education is critical to helping them achieve success later in life, and to help build a solid workforce pipeline for the region.

**Model of Inspiration**
Cisco Systems donated $35,000 to create 20 new FIRST® LEGO® League teams for more than 120 students in grades 4–8. This pilot program also worked to recruit teachers as after-school Coaches; offer professional development for new Coaches and Mentors; and added a FIRST LEGO League qualifying tournament to the region. In addition, it increased the number of female and Hispanic students who participated in FIRST in Yuma County.

**Hard Work Pays Off**
Students were enabled to create innovative solutions to challenges facing today’s scientists; use LEGO MINDSTORMS® technology; apply real-world math and science concepts; develop career and life skills including critical thinking, time management, collaboration, and communication while becoming more self-confident; become more involved in their community.

**Background**
Yuma County is located in the southwestern corner of Arizona, bordering California and Mexico. According to the Arizona Department of Education, of Yuma’s approximately 199,000 residents, 27 percent of people 18 years old and older lack a high school credential; and 10 percent of these individuals live in linguistically isolated households (all members of household 14 years and over have at least some difficulty with English). Inspiring students at a young age to engage in their own education is critical to helping them achieve success later in life, and to help build a solid workforce pipeline for the region.

**Model of Inspiration**
To inspire students in learning, Cisco Systems and FIRST® (For Inspiration & Recognition of Science & Technology) partnered to offer a model to Yuma County educators that provided an exciting, experiential, project-based program that teaches science, technology, engineering, and math (STEM) skills while inspiring innovation and fostering well-rounded life capabilities.

In the fall of 2015, Cisco donated $35,000 to fund a pilot program that introduced 20 new FIRST® LEGO® League teams to schools in Yuma County. In FIRST LEGO League, students grades 4 – 8 are immersed in real-world science and technology challenges. Teams design their own solution to a current scientific challenge, and build autonomous robots that perform a series of missions based on an annual theme. Through their participation, students develop valuable life skills and discover exciting career possibilities while learning that they can make a positive contribution to society.

According to Alex Belous, education portfolio manager at Cisco Foundation, “At Cisco we have always believed that learning by doing is a critical part of the path to a successful future. The enthusiasm, cooperation, team work, persistence, and patience these teams displayed will be as big as any prize they win during competition.”

In addition to 20 new FIRST LEGO League teams, goals of the pilot program included working with local FIRST Partner Arizona State University (ASU) to recruit teachers as after-school Coaches, providing professional development for new Coaches and Mentors, and adding a qualifying tournament at one of the participating middle schools. In addition, the pilot worked to increase the number students reached (especially female and Hispanic students) by FIRST, and to keep students and teachers engaged beyond the first year.
Hard Work Pays Off

The pilot program afforded more than 120 students on 20 teams from 12 schools across Yuma County the opportunity to create innovative solutions to challenges facing today’s scientists; use LEGO MINDSTORMS® technology; apply real-world math and science concepts; develop career and life skills including critical thinking, time management, collaboration, and communication while becoming more self-confident; become more involved in their community; and participate in official tournaments.

One of the pilot teams, the “Scorpiotics” from San Luis, took home top honors by winning the Champion’s Award at the Yuma County Qualifying Tournament. Scorpiotics Coach Mehulkumar Gandhi said the experience has improved the team’s academic success, as well. In fact, some team members have already passed the ACT (American College Test) and are applying to attend a robotics program at John’s Hopkins University. In addition, their success has helped spread awareness about the importance – and usefulness – of science, technology, engineering, and math skills through the San Luis community.

“"I am extremely proud of my team," Gandhi said. "We learned that although many goals are hard to achieve, with team work, they are not impossible."

According to Cassie McIntyre, director of corporate partnerships at FIRST, the combination of an existing relationship with a strong local partner (ASU) and a generous corporate funder (Cisco Systems) – both dedicated to helping educators inspire students – paved the way in setting up an infrastructure that made it easy to create, nurture, and provide ongoing support for 20 FIRST LEGO League teams.

As a result of this successful pilot, FIRST and Cisco are making plans to roll out a similar strategy to other regions across the country.