

# Qualcomm, *FIRST*® Partner to Foster Future Innovators



## AT A GLANCE

### Background

Qualcomm is laying the groundwork for the next generation of innovators by supporting K-12 STEM education and inspiring greater diversity in the STEM workforce. As a *FIRST*® Strategic Partner, Qualcomm provides a wide range of support that includes technology, thousands of volunteer hours from employees, as well as substantial philanthropic contributions of several million dollars.

### Qualcomm's *FIRST* Priority

During 10 years of collaboration, Qualcomm's support has grown with *FIRST*. Today, it includes integration across all four programs that inspire tens of thousands of students each year, helping to prepare them for the job market. Qualcomm has also aided in *FIRST* global expansion, helped to implement a new game-changing control system for *FIRST*® Tech Challenge, anchored the *FIRST*® Championship for three years in a row, and more.

### Why *FIRST* Support is Important

Qualcomm is helping to build a diverse STEM workforce — for its own future, and that of the world — and thinks *FIRST* plays a critical role in offering students exposure to real-world careers. With its support of *FIRST*, Qualcomm is doing its part to bring innovation, collaboration, and STEM education to students around the globe. In addition, with over 400,000 yearly participants, *FIRST* offers Qualcomm a unique opportunity to showcase products and technologies to its target audiences.

## Background

Science, technology, engineering, and math (STEM) education is essential for invention. And as a company of inventors, Qualcomm is laying the groundwork for the next generation of innovators by supporting K-12 STEM education and inspiring greater diversity in the STEM workforce. This is becoming increasingly important as the Bureau of Labor Statistics reports that although STEM jobs are expected to grow at a rate of nearly double that of other fields, around 1.2 million such positions will be unfilled by 2018 because of a lack of applicable skills in the U.S. workforce.

In the more than 30 years since it was founded, Qualcomm has contributed to education by providing technology, funding programs, promoting community engagement, and more. Since 2006, the company has been a proud supporter of *FIRST*®. As a *FIRST* Strategic Partner, Qualcomm provides a wide range of support that includes technology integration in the *FIRST*® Tech Challenge control system, thousands of volunteer hours from employees across the globe, as well as substantial philanthropic contributions of several million dollars to support teams, events, and program growth.

"The skills that *FIRST* participants learn are a great foundation for their future careers," said Matt Grob, executive vice president and chief technology officer, Qualcomm Technologies, Inc. "These skills are critical to succeed in industries like ours, where brilliant minds need to constantly push the boundaries of what's possible."

## Qualcomm's *FIRST*® Priority

During the 10 years of the *FIRST*-Qualcomm collaboration, *FIRST* has grown from 11,000 teams to more than 44,000. Qualcomm support has grown with it — across all four *FIRST* programs and around the world — by engaging with *FIRST* teams, sponsoring events, providing cutting-edge technology and expertise, and helping to promote the *FIRST* mission to a broad audience. Recently, Qualcomm added *FIRST*® Tech Challenge Season Sponsor, the first sponsorship of its kind, to the list of ways it supports *FIRST*.

A commitment to teams, via direct funding and time donated by hundreds of Qualcomm employees who serve as mentors, coaches, judges, and event volunteers, helps inspire tens of thousands of *FIRST* students each year. Qualcomm has also directly supported several thousand teams globally.

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— MATT GROB, EXECUTIVE VICE PRESIDENT AND CHIEF TECHNOLOGY OFFICER, QUALCOMM TECHNOLOGIES, INC.

Qualcomm’s leadership in promoting STEM education overseas has played a significant role in the global expansion of *FIRST*. In China, Qualcomm has been an integral player in taking the *FIRST* Tech Challenge program from an intramural activity among schools, to a robotics revolution making its way to Olympic-quality stadiums. In just 2015-16, Qualcomm support brought forth 35 robots, over 1,000 competition plays, 1,300 volunteer hours, and over 4,000 spectators across China. Sponsorship of the 2016 Korea Robot Championship enabled the number of *FIRST* Tech Challenge teams to more than double from 13 to 29. In addition, Qualcomm sponsors *FIRST* teams and events in Canada and Israel.

As Presenting Sponsor of the *FIRST*® Championship for the last three years, Qualcomm has helped make science a spectator sport — in 2016, enabling 25,000 students (more than 40,000 people in total) from 40 countries to celebrate STEM in the same way our culture celebrates sports and entertainment.

“Qualcomm’s dedication to the *FIRST* mission continues to grow in exciting, impactful ways. Its long history of generous support is proof of Qualcomm’s commitment to helping young people find pathways to successful futures,” said *FIRST* president, Donald E. Bossi.

In 2015, Qualcomm took its collaboration with *FIRST* to the next level, working to help implement a new control system that put the Qualcomm® Snapdragon™ processor (a product of Qualcomm Technologies, Inc.) at the heart of *FIRST* Tech Challenge. As a result of hundreds of Qualcomm person-hours that were donated for design and architecture support, teams can now create and control their robots using smartphones powered by the Snapdragon processor. This integration is revolutionary for *FIRST* Tech Challenge and gives students hands-on experience with cutting-edge mobile technology

while learning Java — a skill that offers an incredible advantage for *FIRST* students when they enter the job market.

“We’ve seen so many positives as a result of collaborating with *FIRST* on this solution,” says Paul Jacobs, executive chairman, Qualcomm Incorporated. “Thousands of kids who participate in *FIRST* Tech Challenge are now exposed to the power of Snapdragon as they program and control their robots using smartphones.”



*Paul Jacobs, executive chairman of Qualcomm Incorporated, with a FIRST Tech Challenge team member, driving a robot powered by a Snapdragon processor.*

## Moving the Future Forward Faster

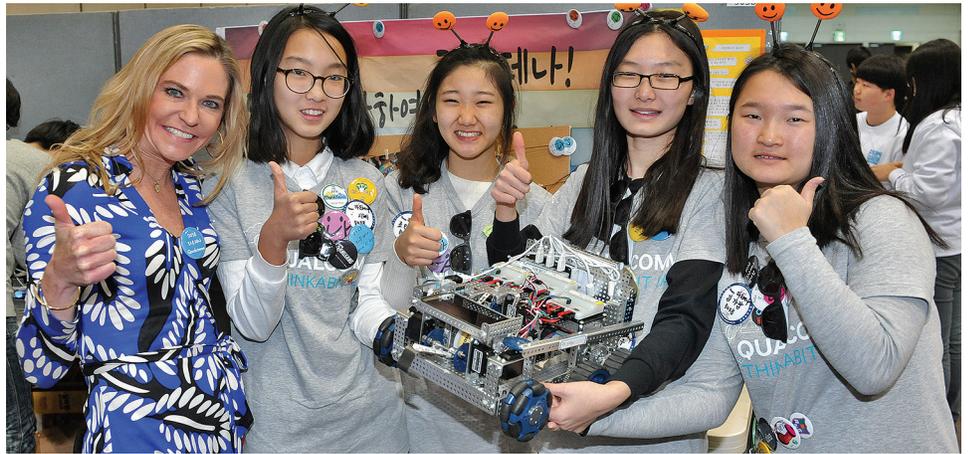
“Qualcomm recognizes the role today’s youth play in a brighter future – and that’s why we support *FIRST*. The program provides students valuable training in technical, leadership, and problem-solving skills. These tools will help them succeed as the next generation of inventors that will drive our industry. It’s also a lot of fun,” Grob said.

With its continued support and commitment to education, Qualcomm is helping to build a diverse STEM workforce – for its own future, and that of the world. In this time of unprecedented technological growth, Qualcomm thinks organizations like *FIRST* play a critical role in offering students exposure to real-world STEM careers.

In addition to the thousands of students impacted by direct team contributions, the tens of thousands of young lives changed at each *FIRST* Championship, and the technological leg-up that approximately 51,500 *FIRST* Tech Challenge participants were afforded by the integration of Snapdragon, Qualcomm continues to inspire young people as *FIRST* Alumni. Qualcomm encourages former *FIRST* team members to continue their development in STEM-related fields post-high school with its internship program – which is one of the best in the country. Some of those students even go on to build their careers at Qualcomm.

“We know that nurturing and strengthening education leads to continued innovation and, in the long run, economic growth. That’s why we’ve developed and sponsored programs, like *FIRST*, designed to inspire young students. Qualcomm’s support to *FIRST* goes beyond a traditional sponsorship. We want to transform young people’s lives and the future of our industry.”

— PAUL JACOBS, EXECUTIVE CHAIRMAN,  
QUALCOMM INCORPORATED



Qualcomm sponsored the only all-girls *FIRST* Tech Challenge team, which competed in the 2015-2016 Korea Robot Championship (KRC) in February and qualified for the international competition held in Australia. Molly Gavin, vice president of government affairs and sustainability at Qualcomm (far left) is pictured with team “Laonjena” and their robot, La Boong.

One such *FIRST* Alum (former *FIRST*® LEGO® League and *FIRST* Tech Challenge team member), Jordan Burkland, was instrumental in working with Qualcomm Technologies’ engineers to implement the *FIRST* Tech Challenge control system.

“Through *FIRST*, I was able to discover my passion for robotics and gain some amazing life opportunities that have led me to the path that I am on now. Because of *FIRST*, I have chosen to double major in Robotics Engineering and Computer Science, and selected WPI (Worcester Polytechnic Institute) based on its hands-on curriculum that is very similar to my *FIRST* experiences,” Jordan said. “I’m really excited to be at Qualcomm because I get to work with the robotics group in R&D testing the new drone platform, and get to work alongside people with real-world robotics experience.”

Similar to other major Qualcomm sponsorships, *FIRST* provides a platform to get Qualcomm technology in front of target audiences. With over 400,000 participants each year, *FIRST* offers a unique opportunity to showcase products and technologies while helping to create the next generation of inventors, tinkerers, and problem solvers. It also provides Qualcomm opportunities to engage with like-minded business partners in meaningful ways.

“We know that nurturing and strengthening education leads to continued innovation and, in the long run, economic growth. That’s why we’ve developed and sponsored programs, like *FIRST*, designed to inspire young students,” Jacobs added, “Qualcomm’s support to *FIRST* goes beyond a traditional sponsorship. We want to transform young people’s lives and the future of our industry.”

## Conclusion

With its support of *FIRST*, Qualcomm is doing its part to bring innovation, collaboration, and STEM education to students all over the world. As technology becomes an essential component of more careers than ever before, proficiency in STEM has emerged as a foundational 21<sup>st</sup> century skill. Qualcomm and *FIRST* are working together to expose students early and give them the confidence they need to be successful members of the STEM workforce.

“When I founded *FIRST*, my goal was to inspire young people to embrace the skills they need to become the next generation of technology leaders and creative problem solvers. More than 25 years later, with support from leading companies like Qualcomm, *FIRST* is nurturing millions of minds that will go on to solve the world’s greatest challenges,” said *FIRST* Founder, Dean Kamen.

[www.firstinspires.org](http://www.firstinspires.org)

