

Building a Community

2017 Annual Impact Report



FOR INSPIRATION & RECOGNITION OF SCIENCE & TECHNOLOGY



The impact of *FIRST*[®] is bigger than STEM. We're **building a community** — one where students feel inspired and empowered to channel their curiosity into the big ideas that will change the world.”

— Dean Kamen, Founder



Building a Community

2017 Annual Impact Report

It takes a pretty big village to raise a generation of young people who will go on to make our businesses healthier, our global economy stronger, and our society more resilient. *FIRST*® (For Inspiration and Recognition of Science and Technology) is this village. We are proud to connect students, educators, and professionals to a community where we can nurture, embrace, educate, and empower today's youth as they chart their paths, while developing the science, technology, engineering, and math (STEM) skills they will need to be successful in any career.

As a not-for-profit organization, we rely on our expansive network of volunteers and leaders in business, government, media, education, and entertainment to carry out our mission, and we couldn't be more grateful. With their tireless support, we help our students become well-rounded adults who can persevere in an ever-changing workforce.

Our innovative, inspirational community is millions of people strong and growing every day. We meet in classrooms, in each other's homes, in community centers, in makerspaces, and on social media all year round. We help each other solve problems, have fun, and challenge ourselves. Creating opportunities for connection and mentorship in an inclusive environment is integral to accomplishing our goal of inspiring innovation and leadership in young people.

The *FIRST* community has created a transformative movement.

The *FIRST* community has created a transformative movement, and we're stronger than ever. Together, we span demographics, ages, races, and professions, but we're brought together by a shared responsibility to affect and inspire a better world. *FIRST* is the community that's building global, national, and local networks to not only inspire kids to pursue STEM education and careers, but to solve problems, drive innovation, and create positive change that benefits us all.

Table of Contents

Impact That Builds Community	4
Founder's and Co-Chairs' Letter	7
President's Letter.....	9
Fantastic Facts.....	11
Progression of Programs	13
Expanding Access to the <i>FIRST</i> ® Community	14
Season Highlights.....	17
<i>FIRST</i> , Inspire Gala.....	18
<i>FIRST</i> Championship.....	20
<i>FIRST</i> ® LEGO® League Jr.	22
<i>FIRST</i> ® LEGO® League.....	24
<i>FIRST</i> ® Tech Challenge	26
<i>FIRST</i> ® Robotics Competition	28
Sponsors	30
Contributors.....	32
Founder's Award.....	33
Woodie Flowers Award.....	37
Alumni.....	44
<i>FIRST</i> Scholarship Program	45
<i>FIRST</i> LEGO League Global Innovation Award	47
Financials.....	54
Leadership.....	55

Will you join us
as we come
together to build
a better world?

Join the *FIRST* movement. Learn more at www.firstinspires.org.

Impact That Builds Community

A decade of verifiable data shows that **exposing kids to fun, exciting *FIRST* programs builds 21st century work skills and greatly increases their motivation to seek education and careers in STEM fields.** Three years of data* from a rigorous longitudinal study of *FIRST* indicates that girls in *FIRST* are significantly more likely to have even greater gains in STEM than their peers or boys in *FIRST*.



ULTIMATE IMPACT 75%+ of *FIRST* Alumni are in a STEM field (student or professional)

Inspired to learn more? www.firstinspires.org/about/impact

STEM Exposure

FIRST STUDENTS

- 84%** build the robot
- 88%** work on robot design strategy
- 60%** program/code
- 77%** learn about STEM jobs
- 97%** have FUN!

GIRLS IN *FIRST*

- 75%** build the robot
- 89%** work on robot design strategy
- 61%** program/code
- 78%** learn about STEM jobs
- 97%** have FUN!

STEM Interest & Skills

FIRST STUDENTS

- 88%** more interested in learning about STEM
- 88%** better understand how STEM is used to solve real-world problems
- 98%** increase teamwork skills
- 93%** increase problem-solving skills

GIRLS IN *FIRST*

- 85%** more interested in learning about STEM
- 92%** better understand how STEM is used to solve real-world problems
- 99%** increase teamwork skills
- 98%** increase problem-solving skills



Education, STEM Careers

Long-Term Outcomes

FIRST STUDENTS

- 86%** more interested in doing well in school
- 84%** motivated to take challenging math or science classes (*FIRST* Robotics Competition, *FIRST* Tech Challenge)
- 94%** embrace the importance of *Coopertition*[®], *Gracious Professionalism*[®]
- 80%** more interested in jobs that use STEM

GIRLS IN FIRST

- 83%** motivated to take challenging math or science classes (*FIRST* Robotics Competition, *FIRST* Tech Challenge)
- 98%** embrace the importance of *Coopertition*, *Gracious Professionalism*
- 82%** more interested in jobs that use STEM (*FIRST* Robotics Competition, *FIRST* Tech Challenge)

FIRST ALUMNI ARE*

- 1.8x** more likely to be very interested in computer science majors
- 2.3x** more likely to be very interested in engineering majors
- 3.9x** more likely to be very interested in robotics majors
- 2.3x** more likely to take an engineering course their freshman year

FEMALE FIRST ALUMNAE*

- 3.1x** more likely to be very interested in majoring in computer science
- 3.2x** more likely to be very interested in majoring in engineering
- 5.1x** more likely to be very interested in majoring in robotics
- 3.4x** more likely to take an engineering course freshmen year

*Than a matched comparison group. SOURCES: 1) *FIRST* Longitudinal Study, 2015 2) Brandeis University: Cross-Program Evaluation of *FIRST* Tech Challenge and *FIRST* Robotics Competition (2011); 3) Evaluation of the 2012-13 *FIRST* LEGO League Program (2013); 4) More than Robots: Evaluation of *FIRST* Robotics Competition Participant and Institutional Impacts (2005); 5) *FIRST*, 2015 Survey of *FIRST* Robotics Competition and *FIRST* Tech Challenge Alumni



“ Our programs **build communities and relationships** that have the power to change attitudes and upend preconceived notions.”

Founder's and Co-Chairs' Letter

People often define communities as the towns or cities they call home, but as technology changes the way we live and do business, communities continue to cross geographic and physical borders. We're connected with each other in-person and online. Communities are the foundation of our society, and we must continue to foster inclusive, strong, and well-resourced networks for ourselves and our children.

That's where *FIRST* comes in. Our programs build communities and relationships that have the power to change attitudes and upend preconceived notions. Through *FIRST*, students acquire the personal and professional skills they'll need for a lifetime of success, in the workforce and as well-rounded citizens of the world. Our programs provide welcoming, safe, and thought-provoking environments in which students from all walks of life can find knowledge, inspiration, and a sense of belonging – and discover themselves along the way.

FIRST is a movement, and our communities extend far beyond the brick and mortar: We're more than a place, an event, a team, or a program. Mentors guide student experiences and get fulfillment from passing knowledge to the next generation. Alumni dedicate time to their former teams or those nearby, and maintain the lifelong friendships and connections formed through their *FIRST* experience. Volunteers and donors keep our community running, and sponsors build connections and pathways for students seeking experiences, internships, and careers both inside and outside STEM fields.

The power of the *FIRST* community transcends friendships and career prospects; it creates connections to inspire students who face barriers to education. In New York City, a public school district for students with special education needs is using *FIRST*® LEGO® League Jr. to give students their first chance to be part of a team, and they are exceeding all expectations (details on page 23). In Alberta, Canada, educators on remote First Nation reserves are using *FIRST*® Robotics Competition, *FIRST*® Tech Challenge, and *FIRST*® LEGO® League to provide professional development and distance learning opportunities to help students graduate (details on page 15).

We extend our most heartfelt thanks to those who give their time and resources to *FIRST*: Your support, time, and passion have made a difference for millions of kids worldwide. We're proud to continue what you've helped build.

We hope our community and progress inspire you, and we invite you to join us – or grow your support – however you feel most passionate and able. The *FIRST* family is large, and growing, and much work remains; there are students worldwide in need of STEM education, access to mentorship, support networks, and more.

Become a mentor, sponsor a team, commit your company's people and resources, or volunteer at a local *FIRST* event. Our kids deserve so much, and with your help, we can give it to them.



Dean Kamen
Founder



Robert K. Ortberg
Co-Chair, Board of Directors



Bob Tuttle
Co-Chair, Board of Directors

Will you help us grow our community?

Join the *FIRST* movement. Learn more at www.firstinspires.org.



“Communities have a responsibility to help kids become **good citizens** and **critical thinkers** who can collaborate and respect each other. *FIRST* is uniquely positioned to meet these needs.”

President's Letter

Of all the qualities that set *FIRST* apart, I'm most proud of the community we've built. Our students, mentors, educators, sponsors, and supporters bring different backgrounds and experiences to the table. They open each other's eyes to new opportunities and provide inspiration that lasts a lifetime. As a result, *FIRST* students and alumni are already impacting the economy and working to improve social issues. I can't wait to see what they do next.

Communities have a responsibility to help kids become good citizens and critical thinkers who can collaborate and respect each other. *FIRST* is uniquely positioned to meet these needs.

- **Addressing inequality.** Seeing our programs reach students who haven't had an opportunity to engage with a meaningful STEM learning opportunity inspires me. *FIRST* STEM Equity Community Innovation Grants are making more of these connections possible. For example, S.A.Y. Detroit Play Center – an after-school resource for disadvantaged youth – uses *FIRST* programs to provide a stable environment and STEM mentors, which students may otherwise lack (details on page 14).
- **Inspiring lifelong learners.** Our investment in longitudinal research continues to show that *FIRST* works – and the impact on students extends well beyond the classroom. Our growing alumni network knows this best. Many go on to volunteer with *FIRST* and generously give their time and talents in the communities they join.
- **Creating connections.** Teamwork and collaboration across organizations are key to building a tech-enabled community and a STEM-savvy workforce. I'm proud to see *FIRST* expanding its reach through new and revamped partnerships with other nonprofit organizations and industry leaders. Our partnerships with colleges and universities helped increase scholarship opportunities for *FIRST* alumni to more than \$50 million available in 2017.
- **Developing thoughtful citizens.** Inspiring change and encouraging progress are shared responsibilities. *FIRST* is training its mentors, coaches, and volunteers to better support a culture of diversity and inclusion; translating key program materials to improve accessibility; and empowering kids to use their smarts for good.

As we work to reach our goals, *FIRST* must find creative ways to meet our community's needs. For example, we executed our first-ever dual *FIRST* Championship, giving more students the opportunity to attend and make game-changing connections with our network – students like Fredele Burns, from a rural Navajo community in Utah, who attended with his *FIRST*® Robotics Competition team and a robot they built largely out of scrap metal. Fredele's participation earned him a full-ride scholarship, bringing him closer to his dream of becoming a doctor.

To all *FIRST* mentors, volunteers, alumni, sponsors, donors, educators, and other supporters: Thank you for building a community that opens doors and provides lasting connections critical to helping students reach their full potential.

I believe more than ever that the *FIRST* community should be open and accessible to every student, regardless of location, demographic, or background. We all have a part to play to ensure every child has a foundation for success.



Donald E. Bossi
President

Let's work
together to give
every child a
brighter future.

Join the *FIRST* movement. Learn more at www.firstinspires.org.



“**UNITY** is fundamental to *FIRST*. It **is an anchor** for the very large, very effective *FIRST* community.”

— Woodie Flowers, *FIRST* Distinguished Advisor



Fantastic Facts



1989

FIRST is founded to excite young people about science and technology

Gracious Professionalism[®]

"Respect for others, being a good sport, sharing what you've learned"



448,000

participants (ages 6-18)



230,000

mentor/coach/volunteer roles filled



17,000,000

hours donated by volunteers

Coopertition[®]

"Competing teams help and cooperate with each other"



50

U.S. States



85+

countries

~200

scholarship providers



200+

Fortune 500 companies sponsor FIRST



\$50M+

in scholarships



~40,000

robots constructed

12%



growth in number of FIRST teams (over 2016)

Limitless

opportunities for a meaningful experience



It's not about winning...
it's about **teamwork,**
commitment, and
responsibility!"

— FIRST Robotics Competition Team 359 "Hawai'ian Kids" motto

Progression of Programs

A progression of **four programs** gets young people involved early, developing **skills** and building **confidence**, keeping them engaged from kindergarten through high school.

FIRST ROBOTICS COMPETITION

Ages 14-18 (Grades 9-12)

Mentored by STEM professionals, teams compete with 120-pound robots of their own design, combining the excitement of sport with the rigors of science and technology. It's a sport where every student can go pro.

- Robotics
- Learn From the Pros
- Game Play
- Scholarships

FIRST TECH CHALLENGE

Ages 12-18 (Grades 7-12)

Students learn to think like engineers. Teams build robots from a reusable kit of parts, develop strategies, document their progress in an engineering notebook, and compete head to head.

- Robotics
- Engineering Notebook
- Game Play
- Scholarships

FIRST LEGO LEAGUE

Ages 9-16* (Grades 4-8)

*Ages vary by country

Guided by *FIRST* Core Values, teams build and program autonomous robots using LEGO® MINDSTORMS® technology to solve a series of missions on a themed playing field. They also develop research projects based on a real-world theme that changes annually.

- Robotics
- LEGO® MINDSTORMS®
- Game Play
- Research

FIRST LEGO LEAGUE JR.

Ages 6-10 (Grades K-4)

Teams explore today's scientific challenges, then present what they learned using a *Show Me* poster. They also build a LEGO® model and program it to make it move using LEGO® Education WeDo 2.0.

- Engineering Notebook
- LEGO® Education WeDo 2.0
- Research
- Presentations

Expanding Access to the *FIRST* Community

FIRST launched its **STEM Equity Community Innovation Grants** program in the 2016-2017 season to provide grants to underrepresented and underserved communities. Supported by generous sponsors and donors, the grants empower educators and community leaders to develop new, innovative approaches to address inequities in STEM education using proven *FIRST* programs. An evaluation was conducted to assess the implementation, impact, and practices around access, equity, and inclusion.

9 Sites

1,080 Youth Reached

152 Teams Started

Supporting STEM Engagement in Detroit Community Center



S.A.Y. DETROIT PLAY CENTER

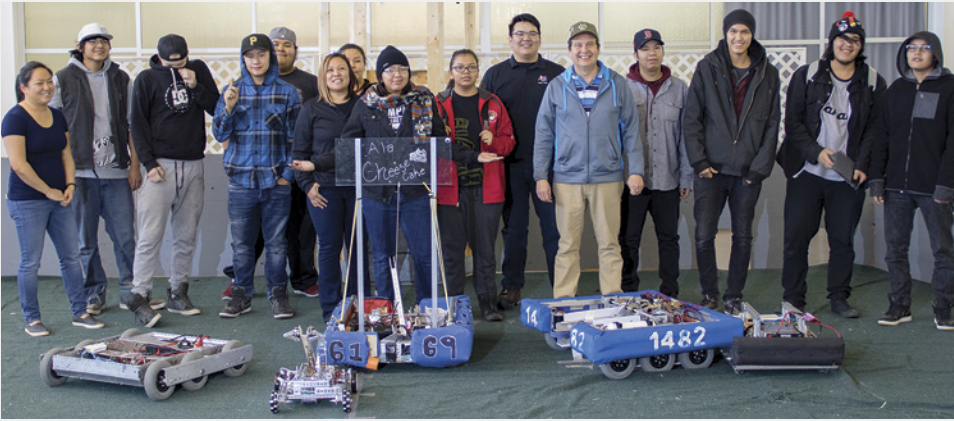
To fill a critical gap in one of Michigan's most disinvested neighborhoods, the **S.A.Y. (Sports. Academics. Youth.) Detroit Play Center** sought high-quality, mentor-driven STEM programs to excite and engage local students at its afterschool tutoring and recreation center, which was opened by philanthropist Mitch Albom in 2015. With funding from a *FIRST* STEM Equity Community Innovation Grant and support from *FIRST* in Michigan leaders and local *FIRST* Robotics Competition Team 503 "Frog Force," S.A.Y. Play added a robotics room, formed *FIRST* LEGO League and

FIRST Tech Challenge teams, and hosted a tournament in its first year.

With *FIRST* programs, S.A.Y. Play is helping fill a void of team-based STEM engagement opportunities in neighborhood schools. In addition to building and programming robots, the S.A.Y. Play students are building positive relationships with STEM role models and learning to collaborate to solve problems, present their ideas to others, and practice public speaking. For the students, these opportunities are incredibly meaningful. "My favorite part is we get to learn new things every day," Tyler, age 8, says.

"[*FIRST* is] opening everyone's eyes to the potential that robotics has. It's not something you see every day [in the community]."

—Lena Pernell, Director, S.A.Y. Detroit Play Center



Breaking Down Barriers to STEM Access in First Nations Communities

ALBERTA DISTANCE LEARNING CENTER

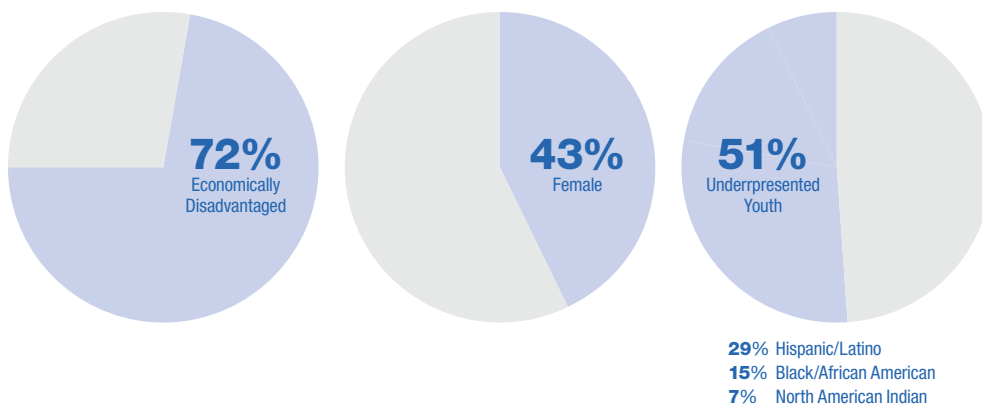
The **Alberta Distance Learning Center (ADLC)** is breaking down access barriers to hands-on, community-based STEM learning experiences in rural and remote First Nations communities throughout Alberta, Canada, with the support of a *FIRST* STEM Equity Community Innovation Grant. The grant helped establish and grow *FIRST* teams at three First Nations schools, including funding ADLC curriculum development, First Nations teacher training, and a celebratory robotics and cultural event.

Young people from First Nations communities experience graduation rates that are lower than the Canadian average, often attributed to low attendance rates and skill shortages. *FIRST* programs fit well with Indigenous ways of knowing and learning, which include mentor-based learning, learning by doing, and learning through community. Through ADLC, First Nations students gained access to credits for participating meaningfully on *FIRST* teams. *FIRST* engaged the students in STEM and helped increase school attendance.

“We’ve never had robotics on our reserve. We felt it was important to help people learn about robotics because from robots you can launch careers into greater things: programming, building, design, repair.”

—Lloyd Verreault, Teacher/Mentor, *FIRST* Robotics Competition Team 6673 “Alexis Tech Warriors”

Reached more underrepresented and underserved youth



Results on this page are from an evaluation of the 2016-2017 *FIRST*® STEM Equity Community Innovation Grant.

Positive outcomes as a result of participation

GAINS IN 21ST CENTURY SKILLS

Teamwork **93%**

Problem Solving **97%**

Leadership **91%**

GAINS IN STEM

STEM Interest **95%**

STEM Awareness **93%**

STEM Career Interest **90%**



Fascination with STEM
STEM Values
Competency Beliefs in STEM
STEM Innovation Stance



STEM Learning Activation

Factors that resulted in success

A local **Champion** with a personal connection to the community

Flexibility holding off-season events and extending the season to accommodate schedules

Removing Barriers providing transportation, food, child care, and coach stipends

Peer Mentoring by other *FIRST* teams

Community Support

Training

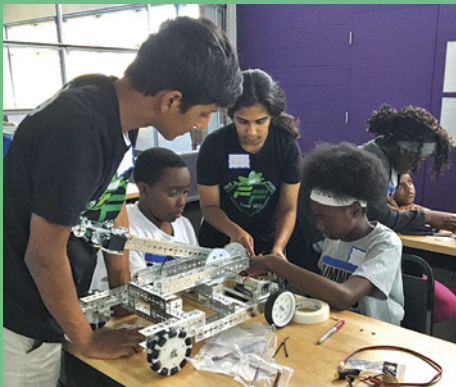
Season Highlights



FIRST is honored to welcome new **Strategic Partners John Deere** and **NRG**. Thank you!



Nine communities reached more than **1,000 underserved and underrepresented students** with hands-on learning and problem-solving opportunities after receiving **2016 FIRST STEM Equity Community Innovation Grants**, sponsored by Alcoa Foundation, The Boeing Company, and Microsoft, among others; 2017 Grant was announced.



Rockwell Automation announced a **four-year, \$12 million commitment** to FIRST to address critical need to inspire and train students for today's industrial careers.



FIRST, Booz Allen Hamilton, and Qualcomm® Incorporated hosted a **Learn. Explore. Inspire. event** aboard the **USS Midway** to rally support for STEM opportunities and student access to San Diego military communities.



Second annual FIRST, Inspire Gala honored **David Siegel & Dana Matsushita, Dr. Irwin M. & Joan K. Jacobs, and Dr. Paul E. & Geneviève Jacobs** for advancing STEM education in underserved communities.



Inaugural dual **FIRST Championship** events took place in **Houston** and **St. Louis**, with the culminating **FIRST Festival of Champions** held in **Manchester, New Hampshire**.



Triangle Fraternity is comprised of members who are pursuing college majors in engineering, math, and the sciences. They formalized an **Alliance** relationship with FIRST in order to help promote our programs among their members and encourage FIRST participation and engagement within their Fraternity Chapters.



FIRST Scholarship program exceeded **\$50 million** milestone.





Building Stronger Communities and Brighter Futures



Second Annual *FIRST*, Inspire Gala

To help expand diversity efforts and STEM opportunities for students in underserved communities, hundreds of *FIRST* supporters gathered at Cipriani 55 Wall Street in New York City for the second annual *FIRST*, Inspire Gala.

The event featured prominent speakers such as Dan Huttenlocher, Dean and Vice Provost of Cornell Tech; Dean Kamen, founder of *FIRST*; and many *FIRST* students, recognizing the impact that the organization has made in STEM education over the past 27 years.

“We come from different backgrounds, different cultures, and different lifestyles,” Eram, a student from Bronx Academy for Software Engineering, told the audience. “But what we all have in common is our passion for *FIRST*. With the skills that we learn and practice through *FIRST* programs, we will be the next generation that can solve some of the world’s biggest problems.”

The charity event included a live auction that featured a clock handmade by Kamen that sold to United Therapeutics. Proceeds from the event further expand opportunities for more students to participate in *FIRST* programs.

“We know that nurturing and strengthening education leads to continued innovation and, in the long run, economic growth. Qualcomm’s support of *FIRST* goes beyond traditional sponsorship. We want to transform young people’s lives and the future of our industry.”

—Paul Jacobs





“FIRST is about helping each other succeed, and building community. Our problems today will be solved by the next generation. I can think of no better organization to solve them than *FIRST*.”

— David Siegel



Six honorees were presented with individual awards for their efforts to advance STEM education in underserved communities:

David M. Siegel, Co-Founder, Two Sigma Investments and member of the *FIRST* NYC Board of Directors, and **Dana Matsushita** earned the John C. Whitehead Leadership Award in honor of the New York City luminary who recognized the need for hands-on activities that inspire youth with the power of STEM.

Dr. Irwin M. Jacobs, Founding Chairman and CEO Emeritus, Qualcomm Incorporated; **Joan K. Jacobs**; **Dr. Paul E. Jacobs**, Executive Chairman, Qualcomm Incorporated; and **Geneviève Jacobs** earned the Community Inspiration Award for inspiring students to pursue STEM and help build stronger communities.

Thank you to our *FIRST*, Inspire Gala sponsors who appear on page 50 of this Report.



\$1.4 million raised to expand diversity efforts and student access to STEM opportunities



CHAMPIONSHIP



FIRST Championship Community Doubles

PRESENTED BY



The annual *FIRST* Championship offered attendees its usual exciting, action-packed experience, but for the first time, twice as many people experienced the heart-pounding thrills and team spirit of this incredible sporting event.

Thanks to the support of *FIRST* sponsors, host cities Houston and St. Louis, and thousands of pumped-up volunteers, more than 30,000 students from 62 countries put their innovation skills to the test at the inaugural dual *FIRST* Championship presented by Qualcomm.

This global celebration of science, engineering, and technology inspired students and adults alike, with intense competitions, opportunities to create connections, shared ideas, and hands-on fun and technology demonstrations at the *FIRST* Innovation Faire.

2017 *FIRST* CHAMPIONSHIP HIGHLIGHTS

2 Championship
Events

Houston & St. Louis



62

*countries
represented*



63,000+

attendees

45,000+

*team participants (students, mentors,
coaches, and adult supporters)*



2,400

volunteers



“FIRST is a robust community of students, mentors, volunteers, and sponsors from all over the world. Each of you has your own unique qualities that make you a champion, but we are all united by our passion for using technology and engineering to make the world a better, safer, and healthier place.” — Donald E. Bossi

2017 FIRST Championship Sponsors

PRESENTING SPONSOR



PROGRAM SPONSORS



SPONSORS

BAE Systems
The Boeing Company
Booz Allen Hamilton
Bosch
The Coca-Cola Company
Dr. William H. Danforth
The Dow Chemical Company
Edward Jones
Hilton

Hilton St. Louis at the Ballpark
IBM Corporation
Mouser Electronics
Nidec Motor Corporation
Phillips 66
Picatinny STEM
PwC US
Southwest Airlines
St. Louis Regional Chamber

St. Louis Union Station Hotel
TE Connectivity
Texas Instruments
Uber
United Technologies
Viasat
Vulcan Spring
Walt Disney Imagineering



FIRST LEGO® LEAGUE JR.

Ages 6-10 (Grades K-4)

Accomplishments

Approximately 64,000 6-10 year-olds participated on 10,655 teams in 42 countries, celebrating curiosity, imagination, discovery, and teamwork.

Competitions

Over 400 regional Expos; FIRST LEGO League Jr. World Festival Expo in Houston and St. Louis.

Noteworthy

Registered teams each received an exclusive LEGO Inspire Model to help start their journey. A grant from the LEGO Foundation allowed more than 8,000 underserved children across five countries to join in the season.

Young children ages 6-10 dove into the animal kingdom to learn how humans and animals help each other every day. Students built LEGO® models and programmed them with LEGO® Education WeDo 2.0 to make them move. They documented their journey in an Engineering Notebook and created *Show Me* posters to represent what they learned.





Sharing in the Community

LESLIE SCHECHT

**FIRST LEGO League Jr. School District, District 75
New York, New York**

New York City's District 75 provides city-wide support programs for 25,000 public school students from pre-K to age 21 with moderate to severe disabilities. As the district's director of STEM, Leslie Schecht is always looking for kinesthetic programs to reach kids with special needs.

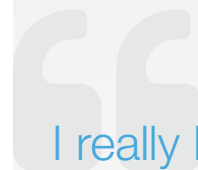
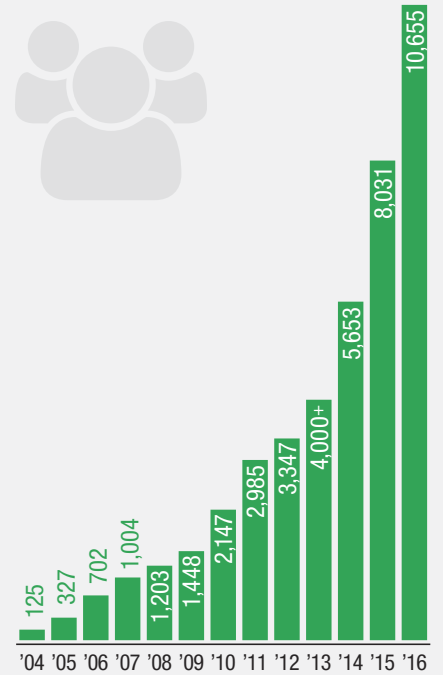
Leslie was interested in *FIRST LEGO League Jr.* for her students because it was hands on and offered meaningful opportunities to collaborate and build social skills. "It's very important, especially for kids on the autism spectrum, to work with other students, and it was the perfect venue for our students."



During the 2016-2017 school year, Leslie worked with *FIRST NYC* to pilot the program in 22 district schools, including providing professional development for teachers and hosting a student expo in the spring at the New York Hall of Science.

The expo, attended by members of the community, has been a key part of *FIRST LEGO League Jr.*'s success in District 75, where the program is growing. "It's inspirational: Kids see each other's work and appreciate each other's work, and they get ideas, so it's all about moving forward," Leslie said.

Team Growth



I really believe that if it's good for general education students, it's good for special education students. It's just a matter of adapting and making it accessible."

— Leslie Schecht, Director of STEM,
NYC Department of Education
District 75

Accomplishments

Approximately 248,000 9-16 year-olds* on 31,079 teams from 86 countries participated in this season's Challenge.

Competitions

1,248 Qualifying Tournaments, 153 Championship Tournaments, 5 Open Championships; *FIRST* LEGO League World Festival in Houston and St. Louis.

Noteworthy

FIRST Steps gave new coaches an online, meeting-by-meeting resource to navigate their first season and connect with their contemporaries.

Global Innovation Award winners The Hydrators of Oakville, Ontario, Canada, created the H₂O Post (Horses Hydrating Outside), an automated water post to monitor the amount of water horses drink using chips implanted in the horse's naval cavity (details on page 47).

Teams explored how we can improve our interactions with animals. Students were challenged to think about all the different ways that people interact with animals, and how we can be better allies.



*Ages vary by country



Connecting communities

ZAINA SIYED

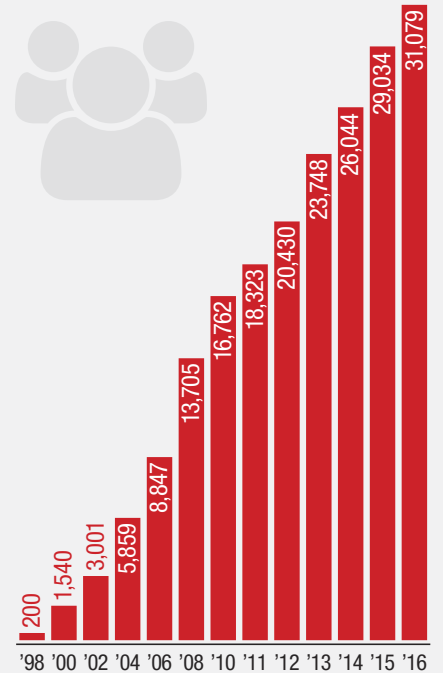
**FIRST LEGO League Team 23772, “FemSTEM”
Chino Hills, California**

At age 16, *FIRST* LEGO League Alumna Zaina Siyed founded the FemSTEM Robotics Scholarship Program, an all-female Muslim robotics team and scholarship fund based in Chino Hills, California. She recruited students, crowdfunded the costs, and coached the *FIRST* LEGO League team out of a local mosque.

Inspired by her own *FIRST* LEGO League experience, where she learned a lot about robotics, teamwork, coding, and perseverance, Zaina sought to awaken Muslim girls to STEM and break down barriers. “I wanted the girls in my community to experience *FIRST* LEGO League and be tech literate, passionate about STEM, and open to STEM careers,” she said. “I wanted them to be leaders and cooperative problem solvers.”

In just four months, Zaina helped eight girls without any prior robotics experience prepare for a *FIRST* LEGO League tournament. Despite being a rookie team, FemSTEM won a first-place overall award and advanced to a state championship. “My community was very proud of them and I think we have encouraged others to join *FIRST*,” she said.

Team Growth



For me, the *FIRST* community has been a uniting force and has helped everyone realize that lots of communities share a passion for science and technology.”

— Zaina Siyed, Founder/Coach, FemSTEM

FIRST TECH CHALLENGE

Ages 12-18 (Grades 7-12)

Accomplishments

Approximately 52,000 participants (ages 12-18, grades 7-12) on 5,222 teams from 23 countries; eligible for over \$50 million in college scholarships.

Competitions

628 Meets, League Championships, and Qualifying Tournaments; 82 Championship Tournaments; 4 Super-Regional Championship Tournaments; *FIRST* Tech Challenge World Championship in Houston and St. Louis.

Noteworthy

This year's challenge introduced the use of Vuforia™ augmented reality software offered by PTC, allowing teams to track the orientation of image targets on the field to assist in autonomous navigation. Such exciting, best-in class technology enhancements are made possible by the powerful Qualcomm Snapdragon processors used by teams.

Teams designed, programmed, and operated robots to place small balls into vortexes, including a Center Vortex on a rotatable stand, light beacons with their alliance's color, and raise a large ball off the playing field and place it in their Center Vortex.



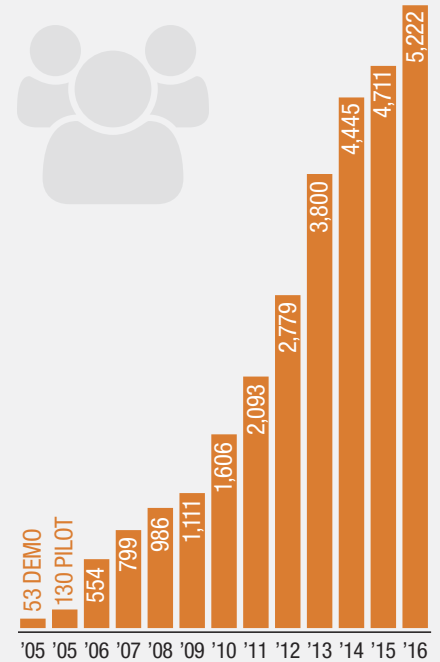
PRESENTING SPONSOR

Qualcomm





Team Growth



Building passion in a tech community

BAILEE ALLEN

Founder, *FIRST* Tech Challenge Team 9761 “The PrestidigiTaters”
Saint George, Utah

FIRST participant Bailee Allen was one of the 50 National Winners of the 2017 National Center for Women & Information Technology (NCWIT) Award for Aspirations in Computing. She plans to major in graphic design and start a web business – and she credits her unwavering passion for technology to the community she’s formed in southern Utah through *FIRST* and *FIRST* Strategic Alliances 4-H and NCWIT.

After participating in *FIRST* LEGO League and taking a programming class through 4-H, Bailee and her *FIRST* friends formed *FIRST* Tech Challenge Team 9761 “The PrestidigiTaters” through a 4-H grant. “That’s when I started to notice the difference the community around me was making on my *FIRST* experience and my path through technology,” she said.

The PrestidigiTaters have made it a priority to give back to the community through outreach events, robotics demonstrations, and teaching at technology and summer camps. The team also hosted a scrimmage for rookie *FIRST* Tech Challenge teams and mentors local *FIRST* LEGO League teams – or “potential PrestidigiTaters,” as Bailee calls them. “*FIRST* Tech Challenge is just fun. We do so many great things,” she said.

“We wanted to give others the same opportunities we’ve been shown through *FIRST* and our tech community here in southern Utah.”

— Bailee Allen, Founder/Student,
The PrestidigiTaters

FIRST ROBOTICS COMPETITION

Ages 14-18 (Grades 9-12)

Accomplishments

84,000 high-school students on 3,357 teams from 25 countries; eligible for over \$50 million in college scholarships.

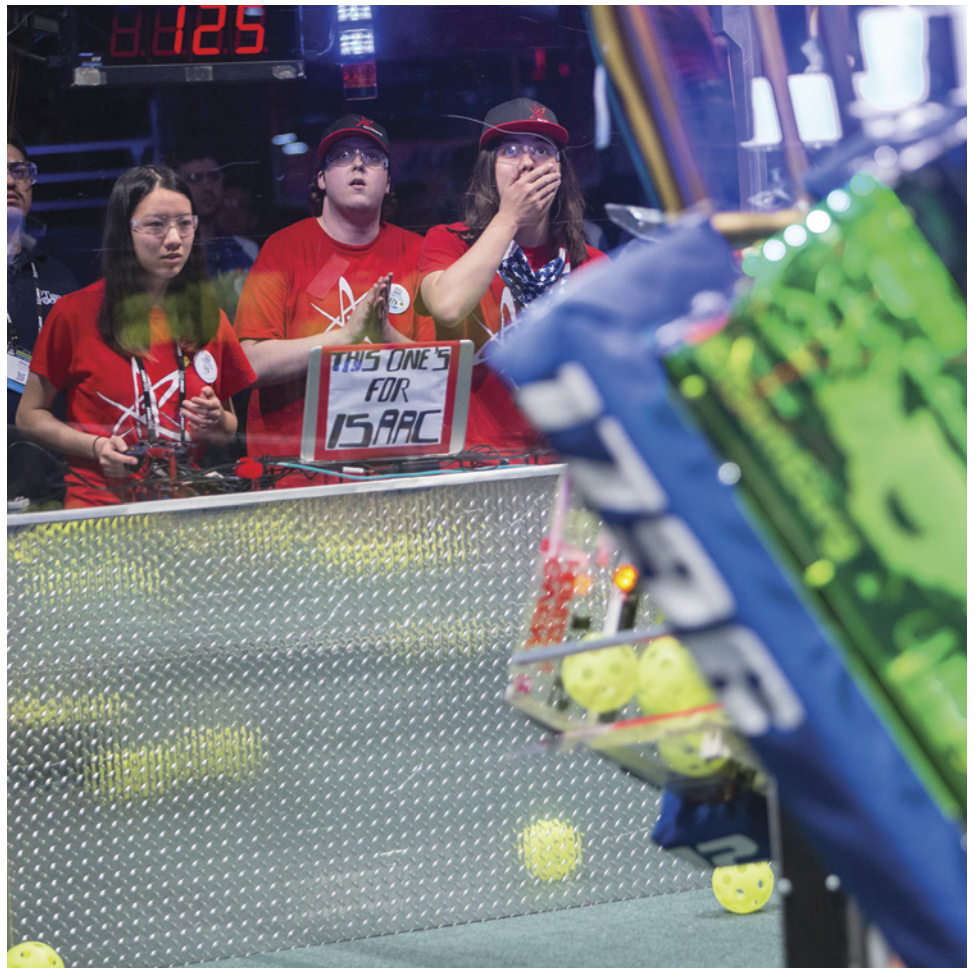
Competitions

80 District Events; 10 State/District Championships; 55 Regional Events; *FIRST* Robotics Competition Championship for over 800 participating teams in Houston and St. Louis.

Noteworthy

For the first time, four human players on the field became an integral part of game play. Our first international Chairman's Award winner, Team 3132 "Thunder Down Under" of Australia, joined Team 2614 "MARS" as shining examples of the *FIRST* community.

FIRST STEAMWORKSSM invited two adventure clubs from an era in which technology relied on steam power to prepare their airships for the ultimate long distance race. Each three-team alliance scored points and prepared to take flight by building steam pressure, gathering materials to start the rotors, and boarding robots onto their airships.





Finding community and thriving

JAWANN ODUMODU

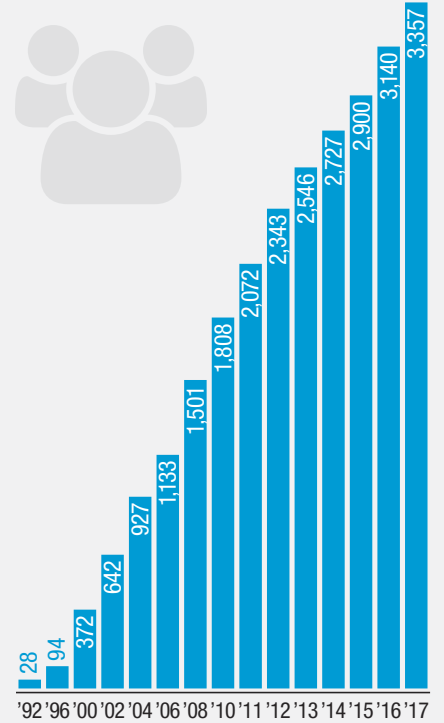
**FIRST Robotics Competition Team 66 “Grizzly Robotics”
Ypsilanti STEMM Middle College, Ypsilanti, Michigan**

Ypsilanti STEMM Middle College is a five-year dual-enrollment high school in Michigan founded around the principles of *FIRST* and its robust afterschool *FIRST* Robotics Competition program, “Grizzly Robotics.” In August 2016, the school, Grizzly Robotics, and the University of Michigan’s Michigan Bicentennial Archive (M-BARC) entered into a three-year partnership to build a prototype of a satellite as a part of a United Launch Alliance CubeSat Grant.

Jawann Odumodu and his teammate, Orlando Garrett, were selected to build the satellite prototype. “It was hard. We spent hours and hours and even our whole spring break at the school every day,” Jawann said. It was also a dramatic turnaround for Jawann, who the previous year had struggled to focus in school following a family tragedy.

After a mentor encouraged him to join Grizzly Robotics, which also included after-school homework supervision, Jawann improved his GPA from a 1.0 to 3.0 average – and his interest in robotics caught fire, leading to the Cubesat opportunity. Jawann, who is considering a career in robotics or medicine, looks forward to seeing a satellite he helped build launched into space.

Team Growth



“What I really liked about *FIRST* is that no matter how you’re doing, you’re always proud of yourself. They always make you feel happy, that you’re welcome.”

— Jawann Odumodu, Student,
Grizzly Robotics

Sponsors

In addition to our sponsors, suppliers, and contributors acknowledged on these pages, *FIRST* extends its sincere appreciation to the tens of thousands of volunteers who generously devote their time and expertise to *FIRST* Robotics Competition, *FIRST* Tech Challenge, *FIRST* LEGO League, and *FIRST* LEGO League Jr. teams and events. *FIRST* could not achieve the impact it does without this tremendous support.

2016-2017

FIRST Strategic Partners



MOTOROLA SOLUTIONS
FOUNDATION



FIRST Founding Sponsors





Booz | Allen | Hamilton



JOHN DEERE



KLEINER
PERKINS
CAUFIELD
BYERS



MOTOROLA SOLUTIONS
FOUNDATION



Contributors

2016-2017 CORPORATIONS AND CORPORATE FOUNDATIONS

\$1,000,000+

Anonymous
The Boeing Company
DoD STEM
National Aeronautics and Space Administration (NASA)
Qualcomm® Incorporated
Rockwell Automation, Inc.
Rockwell Collins, Inc.
United Technologies Corporation (UTC)

\$250,000 - \$999,999

3M Company
BAE Systems
Bechtel Group Foundation
Bloomberg L.P.
Booz Allen Hamilton, Inc.
Caterpillar, Inc.
Corporation for National and Community Service (CNCS)
DEKA Foundation
The Dow Chemical Company
FedEx Corporation
General Motors Company
Google Inc.
John Deere
LEGO A/S
The LEGO Foundation
Lockheed Martin Corporation
Monsanto Company
Motorola Solutions Foundation
NRG Energy, Inc.
PTC, Inc.
TE Connectivity
U.S. Air Force

Up to \$249,999

100 Black Men of Atlanta Inc.
AAON, Inc.
Aaron Raphel Charitable Fund
Aavid Thermalloy, LLC
AB L.P.
ABB Inc.
Abbott Fund
Abbott Laboratories
Ace Pump and Supply
ACS Technologies
ADM Corporation
Adobe Systems Inc.
Adrian Community Chest
Advanced Process Technology, Inc.
Advanced Technology Services, Inc.
Aerogel Technologies, LLC
Aerogel Rocketdyne Foundation
Alabama Army National Guard

Alcatel-Lucent USA Inc. (Nokia Bell Labs)
Alexandria STEM Education Fund
Allegro MicroSystems, Inc.
Allinky, LLC
Altium Ltd.
Amazon.com
American Legion Post 306
American Marriage Ministries
American Society of Mechanical Engineers (ASME)
Andeavor
Andersen Corporate Foundation
Anonymous
Anthony Wayne Rotary
Applied Materials
Applied Medical
Arconic Foundation
ARM, Inc.
Armac Inc. in memory of Henry Villeneuve
Arrowhead Concrete Works, Inc.
Ascent Resources, LLC
ASML
AT&T, Inc.
Autodesk, Inc.
Automatic Data Processing, Inc.
Avon Products, Inc.
BancFirst
Barr Engineering
Baxter International, Inc.
Becton Dickinson
Belden, Inc.
Best Buy Co., Inc.
BlackRock
Bloomberg Philanthropies
BNY Mellon
Bosch Community Foundation
Boston Scientific Corporation
Bridgeview Business Services
Bright Funds Foundation
Bright Horizons
BTIG, LLC
CACI, Inc.
California University of Pennsylvania
Canal Park Business Association (CPBA)
Canal Park Lodge LLC
Canon Solutions America
Cedar Falls Scheels
Cedar Falls Tourism and Visitors Bureau
Center for Energy Workforce Development (CEWD)
CenterPoint Energy
Chapter AO P.E.O. Sisterhood
The Chickasaw Nation
China-US Energy Efficiency Alliance
Cirrus Aircraft

Cisco Systems, Inc.
Citrix Systems
Cleveland Indians
Cleveland State University
CMS Primary Home Care
The Coca-Cola Company
Code School
Cognizant
Colorado Neurodiagnostics
Columbus Ohio Robotics Initiative
Comcast NBCUniversal
Comfort Inn of Duluth
Comfort Suites of Canal Park
Community Foundation for the Greater Capital Region
Community Foundation of West Chester/Liberty
The Community Foundation of Westchester
Competitive Electric Sports LLC
Consolidated Communications Holdings, Inc.
Consolidated Edison Company of New York, Inc.
Consolidated Nuclear Security, LLC
Cooler Master
Cornerstone Research
Corning Incorporated
Courtland Computer Services Inc.
Cox Communications
Credit Suisse (USA), Inc.
CTC Foundation
Dairyland Power Cooperative
Day Automation
DBA Hampton Inn
Dell, Inc.
Delphi Corporation
Delphi Foundation
Dennis, Jackson, Martin & Fontela, P.A.
Denso International America, Inc.
Devon Energy Corporation
Diamond Tools & Fasteners, Inc.
Digi-Key
DISTek Integration, Inc.
Doerfer Companies
Dominion Nuclear Connecticut, Inc.
DonorsChoose.org
Drake University
DRS Network & Imaging Systems, LLC
Duke Energy
Duluth Entertainment and Conference Center
Dunlap Coddling P.C.
Dunwoody College of Technology
DXC Technology
Dynerics, Inc.
Eastman Chemical Company

Eaton Computer Services
Eaton Corporation
Ecolab Foundation
Edison International
Edward Jones Foundation
EFC Systems
Empire Natural Gas Corp.
Employees Charity Organization (ECHO) of Northrop Grumman
Ericsson, Inc.
Ernst & Young L.L.P.
Excel Fund
Exeter Hospital
Express Employment Professionals
ExxonMobil Foundation
FCA Foundation
FHM Parent and Community Association
Fidelity Charitable Gift Fund
Fidelity Investments
Finger Lakes Advisory Board
First American Financial Corporation
First Florida Building Corp.
FirstFuelCells.com
Fleischhacker Foundation
Florida State University
Ford Motor Company
Freestyle
Fulcrum IT Services LLC
Future Seekers Inc.
Gas Processors Association
GE Healthcare
GE Infrastructure and Sensing, Inc.
GE Power & Water
General Atomics Sciences Education Foundation
General Dynamics
General Electric Company
General Electric Energy (Power & Water)
General Electric Transportation
General Motors Tonawanda Engine Plant
Genesis Automation
Genesis Systems
Gentherm
Girl Scouts of Western NY
GitHub, Inc.
Givable St. Louis
The Gleason Works
Glenn Research Center (NASA)
Global Foundries
Globalstar
Goldman Sachs Group, Inc.
Goldman, Sachs & Company Matching Gift Program ♥
Google Matching Gifts Program ♥
Google Mayes County

■ Member of the *FIRST* Board of Directors

▲ Member of the *FIRST* Executive Advisory Board

● *FIRST* Honorary Director

◆ *FIRST* Alumni

* *FIRST* Senior Advisor

♥ Matching Gift

The Graco Foundation
 Grand Canyon University
 Grandma's Adventure Zone
 Granite Bench Charitable Foundation
 Great-West Life & Annuity Insurance Company
 Greenspan Foundation
 Hallmark Corporate Foundation
 Harris Corporation
 Harsco
 Hartel's / DBJ Disposal
 Hartford Steam Boiler
 The Leona M. and Harry B. Helmsley Charitable Trust
 Henny Penny Corporation
 Henry Elliott & Company, Inc.
 Herman Miller Cares
 Hewlett-Packard Company
 Hilton
 HM Health Solutions
 Honda of America Mfg., Inc.
 Honeywell Aerospace
 Houston First (Houston CVB)
 i2E
 i.am.angel foundation
 IBM Corporation
 IBM Employee Services Center ♥
 Inasmuch Foundation
 Indiana Space Grant Consortium
 The Inmar Fund
 Inn on Lake Superior
 Intel Foundation
 International Society of Automation (ISA)
 Inventioners Inc.
 Involta, LLC
 Iowa Lakes Community College
 Isthmus Engineering & Manufacturing Co-op
 Itasca Community College
 Jacobs Technology, Inc.
 JEM Service Center
 Jenner & Block
 Jigsaw Research
 JJ White, Inc.
 John Steele Zink Foundation
 Johnson Controls, Inc.
 Joy Global Inc.
 JPMorgan Chase Bank N.A.
 J.R. Jensen Construction
 JW Faircloth & Sons, Inc.
 JW Welding, LLC
 Kauai Labs
 Kern Community Foundation
 Kerr Foundation, Inc.
 KGRNA
 Kirkpatrick Foundation, Inc.
 Kittias County 4-H Council
 Kitty Hawk Corp.
 KLA-Tencor
 KMFG Fund

2017 FOUNDER'S AWARD

St. Louis Local Organizing Committee



Dean Kamen, John Bettag, Susie Mathieu, Jim Kiske, and Bert Vescolani (four members of the St. Louis Local Organizing Committee for the 2011-2017 *FIRST* Championship).

Each year, the Founder's Award is presented by *FIRST* Founder Dean Kamen to an organization or individual for exceptional service in advancing the ideals and mission of *FIRST*. In 2017, the award was presented to the **St. Louis Local Organizing Committee** for their dedication to making *FIRST* Championship and *FIRST* programs in St. Louis, Missouri, a success.

For the past seven years, the Committee worked tirelessly to welcome thousands of students, mentors, coaches, volunteers, and spectators to the *FIRST* Championship, while continuing to grow *FIRST* programs in the region. Through the work of the Committee, St. Louis expanded from hosting one *FIRST* Robotics Competition Regional event in 2010, to hosting over 60 events across all *FIRST* programs in 2017.

Susie Mathieu, who accepted the award on behalf of the Committee, recognized the lasting impression *FIRST* has made on the heart of the city. Mathieu also thanked the St. Louis area sponsors and community, whose support was instrumental in making *FIRST* programs more accessible.

As *FIRST* Championship moves to new cities, St. Louis has established a special place in *FIRST* history, and the ripple effects of the city's continued partnership with *FIRST* will build a brighter future for generations to come.

2016-2017 Contributors continued

Kraus-Anderson Construction Co.	Nidec Motor Corporation	Raytheon Company	Synnex Corporation
Kwik Trip	The NORDAM Group	Raytheon Space and Airborne Systems	T and T Auto Sales, Inc.
L-3 Link Simulation & Training	Nordson Corporation	Red Rock Spring Water	Tableau Software
Ladish Co. Foundation	North Shore Bank of Commerce	Rensselaer Polytechnic Institute	Target Corporation
Lam Research Foundation	Northern Arizona University	Republic Bank	Teaching Textbooks Inc.
Fund at the East Bay Community Foundation	Northern Door & Hardware, Inc.	Richard+Bauer Architecture	Technical Recruiting Solutions, Inc.
Lamar	Northern Tier Energy	Robinson Fin Machines, Inc.	Tennessee Valley Authority
Leidos, Inc.	Northland Foundation	Robotics Institute of Maine	Teradata Corporation
Level 3 Communications	Northrop Grumman Corporation	Rochester Institute of Technology	Texas Instruments Incorporated
LexisNexis	Novelis Inc.	Rock Flow Dynamics	Thompson Coburn LLP
LGS Innovations	NVIDIA Corporation	The Roddenberry Foundation	Thoughtfulness Cottage Inc.
LHM	NYU Tandon School of Engineering	Royalty Pharma	Thrivent Financial for Lutherans Foundation
Lincoln Sudbury Parents Organization	OGE Energy Corporation	RPM International Inc.	Tidewater Machine Company
Logistics Health, Inc.	Foundation, Inc.	S.A.Y. Detroit	Tiffany and Company
M+W US, Inc.	Ohio Aerospace Institute (OAI)	Sagamore Hills Elementary	Tinker Engineering and Science Leadership Association
Magellan Health, Inc.	Ohio Educational Outreach Foundation	St. John's County Education Foundation	Tooele County 4-H
Mailers Haven LLC	Ohio Space Grant Consortium	St. Jude Medical Foundation	Torch LMS
Martin Engineering	OK Business Roundtable	St. Louis Regional Chamber	TOSA Foundation
MasterCard Worldwide	Oklahoma Aeronautics Commission	St. Luke's	Touchpad Electronics, LLC
MathWorks, Inc.	Oklahoma Center for the Advancement of Science & Technology	Salesforce.org	Toyota Motor Manufacturing
Mattlin Foundation	Oklahoma Christian University	San Diego State University	Toyota Motor North America
Mattson Technology	Oklahoma State University	Sargento Foods, Inc.	Tradebot Systems, Inc.
MCAD Technologies	Oklahoma State University College of Engineering	SASTEMIC	Turner Construction Company
McCalmon Group	Optum Services, Inc.	Satcom Direct, Inc.	Twitch
McElroy Foundation	Oracle Corporation	Saturn Systems Inc.	Two Sigma Investments, LP
Medtronic Foundation	Orange & Rockland	Sauce Science LLC	UBS Financial Services Inc.
Medtronic, Inc.	Orbital ATK, Inc.	Schneider Electric	Underwriters Laboratories, Inc. (UL)
Memphis NSBE	Oregon Aire, Inc.	Science Applications International Corporation (SAIC)	United HealthCare Services, Inc.
Merck Foundation	Orr & Reno	SCREEN Semiconductor Solutions	United Way of Central and Northeastern Connecticut
Mersen USA Greenville	P&G Global Engineering	Shaw Industry	United Way of Coastal Fairfield County, Inc.
Microchip Technology, Inc.	Paragon TEC	Showbest Fixture Corp.	United Way of East Central Iowa
Microsoft Corporation	Parker Hannifin Corporation	Siemens Caring Hands Foundation	University of California, Davis
Microsoft Matching Gifts Program ♥	Parsons Transportation Group	Sierra Lobo	University of Central Florida
MidAmerican Energy	Paycom Payroll, LLC	Sigma Phi Delta	University of Dayton
Mile High United Way	PayPal Giving Fund	Sil-Pro, LLC	University of Illinois at Chicago
Minnesota Power Foundation	PDF Solutions, Inc.	Skadden, Arps, Slate, Meagher & Flom LLP	University of Iowa
Mississippi Power	Pentair Foundation	Skyline Solar LLC	University of Minnesota College of Science & Engineering
MISUMI USA, INC.	People for Leisure and Youth, Inc. (PLAY)	Snaptron, Inc.	University of Minnesota, Duluth
MKThink	PGE Foundation	Society of Women Engineers (SWE)	University of Minnesota Twin Cities
MN State High School League	Phillips 66	Solar Turbines, Incorporated	University of New South Wales
Morgan Stanley & Co., Incorporated	Picatinny Arsenal	Sons of the American Legion	University of Northern Iowa
Morgan Stanley Foundation	Pitney Bowes	Sony Corporation	University of Oklahoma College of Engineering
Moto Inc.	Plexus Corporation Charitable Foundation, Inc.	Soros	University of Tennessee Knoxville
Mouser Electronics, Inc.	Power/mation	The Soter Group LLC	University of Tulsa
MSP Communications	Practical Machinist	Southern California Edison	U.S. Air Force
Munro & Co Inc.	Presbyterian Health Foundation	Southern Company Services (SCS)	U.S. Army
Nakatomi	The Procter & Gamble Company	Southwest Airlines Co.	U.S. Army ROTC
National Grid	Prodco, Inc.	SpaceX	UT-Battelle/Oak Ridge National Laboratory
National Society of Black Engineers (NSBE)	Programming Electronics Academy	SSOE Group	UVAS Foundation
NCR Foundation	Public Service Enterprise Group	Standard General	Vantage Partners LLC
Netflix	Pumping Services, Inc.	The Standard	Verizon Communications, Inc.
News Corp	PwC US	State Street Foundation, Inc. Matching Gift Program ♥	Verizon Foundation
NextEra Energy	Qualcomm Matching Gift Program ♥	Stay in Duluth	Vermeer Corporation
Nrastructure	Quality Sheet Metal & Welding Inc.	SVRC Industries, Inc.	Viasat, Inc.
NH Kicks Taekwondo Family Fitness		Syantec	
NI			

■ Member of the FIRST Board of Directors ▲ Member of the FIRST Executive Advisory Board ● FIRST Honorary Director ◆ FIRST Alumni ✨ FIRST Senior Advisor ♥ Matching Gift

2016-2017 Contributors continued

Vijay Lakireddy dba Golden State Properties
 Viking Pump, Inc.
 Visit Duluth
 VMware Foundation
 Vulcan Spring & Mfg. Co.
 Walt Disney Imagineering
 Walt Disney Parks and Resorts
 The Walt Disney World Co.
 Webster Bank
 Western Digital Corporation
 Whataburger
 Whitman Prevosto Family Charitable Fund
 The Williams Companies, Inc.
 Williams Foundation Fund at the Tulsa Community Foundation
 Wolcott High School
 Wolf, Greenfield & Sacks, P.C.
 Women for a Better Louisiana
 Wonik IPS USA
 Xcel Energy
 Xerox Corporation
 Xilinx
 XPRIZE®

2016-2017 INDIVIDUAL AND FAMILY FOUNDATION DONORS

\$1,000,000+

Argosy Foundation

\$25,000 - \$999,999

John Abele ■
 William Ackman
 Anonymous
 Bruce & Sue Baebler
 Bezos Family Foundation
 Brin Wojcicki Foundation
 Larry & Tami Cohen
 Ann & John ● Doerr
 Jaqui E. Safra & Jean Doumanian
 Walter Havenstein ■
 The Heinz Endowments
 Irwin Jacobs
 Paul Tudor Jones
 Thomas & Paula McInerney
 Scott McKay ■
 McLelland Family Foundation
 M.J. Murdock Charitable Trust
 Newman's Own Foundation
 Ricardo Salinas
 David Siegel ■ and The Siegel Family Endowment
 John Stroup
 Myron Ullman ■
 Weber Family Foundation Inc.
 Josh * & Judy Weston
 The Judy & Josh * Weston Fund

\$5,000 - \$24,999

The Thomas C. Ackerman Foundation
 Anonymous
 Fred Baldwin
 Michael & Liza Ball
 Mark Bezos
 Donald ■ & Susan Bossi
 Don Bulens
 Callahan Family Foundation
 The Curtis L. Carlson Family Foundation
 Jane Chwick
 Jerry Cohen Foundation
 Cosema E. Crawford ▲
 Mark Dalton
 Dr. William H. Danforth
 Peter & Amy Desmond
 James Dimon
 Michael Dubno ▲
 Thomas & Susan Dunn
 Jay Flatland
 Vincent Forlenza
 Arlene Goldman
 Marc Goldman
 Gene Haas Foundation
 The Armand Hammer Foundation
 The Bruce J. Heim Foundation
 Howard Family Foundation
 Paul Jacobs ■
 John Karlen
 Alan Laotrin
 George Loening
 The Milk Money Foundation, Inc.
 Robert Morley
 Mosher Family Foundation
 Jo Moskowitz
 Dennis Muilenburg ■
 Kevin Murai
 Dr. William P. Murphy Jr. *
 The Kenneth T. & Eileen L. Norris Foundation
 Gerald Oppenheimer Family Foundation
 Robert K. ■ & Valerie Ortberg
 John & Laura Overdeck
 Robert ■ & Elizabeth Parkinson
 Stephen & Jill Petty
 James Pulaski
 Chad & Ann Ruble
 Ed & Reka Schmidt
 Bertram Scott
 Melody & Rich Simoncic
 Karl Sprules
 Nandini Srinivasan
 Linda Stone
 Gary ● & Diane Tooker Family Foundation
 Glen Tullman
 Robert ■ & Lynn Tuttle
 James ● & Nancy Utaski

Jeffrey & Celeste Wecker
 Allen Weinberg
 Jim Weinstein
 Elisha & Lynn Wiesel
 Ronald Zarrella
 Christos & Elena Zoulas

Up to \$4,999
 Amy Ackermann
 Kyle Adams ◆
 Virginia Addicott ■
 Perry Adler
 David Afolabi
 Kimberly Aftergood
 Eugene Agafonov
 Atul Agarwal
 Susan Agrawal
 Ben Agron
 Dan Ahearn in honor of Andrea Hatcher
 Alice Air
 Radhika Akella
 Muhammad Alam
 Kennie Albritton
 Anwar Ali
 Bodhi Crapo Allan
 Teresa Allan
 Jamin Almond
 Brandon Amdahl
 Raajkanna Govindaraj Amudha
 Denise Anderson
 Jeffrey Anderson
 R. Dale Anderson in honor of Scott & Kristin Anderson
 Akshaya Annnavajhala
 Anonymous
 Anonymous in honor of Mackay & Jonathan Davidson
 Anonymous in memory of John Korzick
 Anonymous in honor of Katherine Ross
 Anonymous in memory of Kristopher J. Stallman
 Carrie Anton in memory of Evy Titus
 Tim Antos
 Philip Aponte
 Can Aran
 David Arenson
 Edward Arnold
 Gary Arnold in memory of Henry F. Villaume
 Shannon Arnold
 Colleen Arthur
 Phillip Joe Ash
 Steve Ashman ◆
 Victor Atkins
 Crystal Aurand
 Matthew Austin
 Timothy Babco in honor of Team 9958

Graeme Baer
 Timothy Baggs
 Pinar Bahceci
 Cindy Bai
 Yunsong Bai
 Sheila Bailey in memory of Roy Finamore
 Piyush Baiva
 Stephen Baker
 Kara Bakowski ◆
 Sabina Balachandran
 Shree Balasubramanian
 Sridhar Balasubramanian
 Clarissa Jane Birk Balatan
 Pritam Baldota
 Samantha Balin in memory of Alan L. Kilty
 Ronald Ball in memory of Michael Dawkins
 Michael Banigan
 Joel Barbier
 Brian Barnard
 Kenneth & Debbie Baron
 Stacci Barosso in honor of Joseph Barosso Jr.
 Tyler Barron
 Marcella Lucchiarini Putini Barsuglia
 Tony Basile
 Ben Basinski
 Eric Baudouin
 Susan Baumgarten & David Totheroh
 William & Diana Beaulieu
 Richard & Jeanne Belden
 Daphne Bele'n-Cordero
 Ellen Bell
 J.A. Bell
 Cheri Bengsch
 David Benham
 Stephen Bennett
 Matthew Berg
 P.T. Bergen
 Pete Bergeron
 Leshia Berry
 Roger Berry in memory of Henry Villaume
 Kelli Best
 Sunil Bhattad
 Bala Murali Krishna Bheri
 M. Bhoj
 Alfred Bie & Joan Watanabe
 Alexis Billings
 Justin Binder
 Mr. & Mrs. Paul Birdwell
 Chad Bishop
 Gary Blais
 Brooke Blew
 Justin Bloniasz
 Emanuel Bola
 Kari Bolger

■ Member of the FIRST Board of Directors ▲ Member of the FIRST Executive Advisory Board ● FIRST Honorary Director ◆ FIRST Alumni * FIRST Senior Advisor ♥ Matching Gift

2016-2017 Contributors continued

Venkata Siva Sunil Kumar	Amanda Cavaciuti	Tiffani Cortez	Joseph Dreyer
Reddy Bommu	Greg & Anneka Cerny in memory of Kyle Naydo	Kevin Coughlin	Bryan D'Souza
David Bonderman	Joe Cerrone	Brian Covert	Joel & Jane Dubs
Dennis & Denise Bone	Rachel Chamberlain in honor of Norm Whitley	Ellen Crain	Vani Duddilla
Joel Borellis	Thomas Chan	Sally Cram	Jean Dunkerley
Andrei Borodin	William Chan	David Crane ■	Haley Dunn
Stanley & Ann Borowiec	Ron Chaney	Tim Crawford	T.J. Dermot Dunphy
Christopher Bova	Kenneth Chang	Sterling Crockett	Thanh Duong
Eddie Bowen	Charles Channon	James Crompton	James Durand
Leyda Bracho	Pauline Chao	Christopher Crowley	Patti & Terry Durkin in memory of Scott R. Frock
Thomas Bradburn	Aidan Chapman	Charles Cuccaro	Carolyn Duronio in honor of Andre & Maria Duronio
Truman Bradley	Julie Chapman	Carri Cunningham	Maybar Durst
Cliff Bradshaw	William Chapman	Roger Curtis	Simon Dutton
Jeffrey Braun & Susan Holt	Krishna Chari	Josh Cyphers	Jakub Dworakowski
Rachel Braunstein	David & Joy Ann Chartrau in memory of Nicole Jachna	Paulo Cesar Da Costa	Chris Eastman
Jonathan Bredemeyer	Anuj Chatterjee	Lawrence Daddario	Jane & Reed Eberly in honor of Macksy Gunn & Johnathan Davidson
Jeremy Breiding	Rodolfo Chavez	Venky Dahale	Carol Edelman
Barbara Brennan	Arun Chawan	Gabriel Dahl ◆	William Eder
Gray Brenner	Lianchuan Chen	Jaineel Dalal	Nate Edwards ◆
J. Brooks	Qisheng Chen	Marco D'Alessandro	Sean Edwards
Eric Brosch	Yi-Hsiu Chen	Patricia Daly & Henry Schreiber	Chris Eggert
Caleb Brose	Joey Cheng	Mihaela Dancea	Mitzi & Warren Eisenberg Family Foundation
George Brown	Pamela Cheng	Morisha Daniely	Laurie Elkins
Laura Brown ◆	Coffee Cheung	Steven Dao ◆	Richard Elliott
Lisa Brown in honor of <i>FIRST</i> Robotics Competition Team 747	Jedd Chevrier	Abraham Dauhajre	Thomas Elliott
Mark & Tammy Brown	Ying Chi	Alexia Davidson	Joe & Suzanne Elms in memory of John Schnautz
Rod Brown	Wesley Chiha	Kenneth & Lisa Davis	Daniel Elnes
Steve Bucci	Yvette & Celeste Choma in honor of Holly Choma	Robert & Beatrice Davis in memory of Henry Villaume	Alex Enders in honor of The Walsh Family
Daniel Buck	Bhavya Chopra	Robert Debes	Eric Enloe
Darlene Bunca	Paul Chui	Mike Deeks	Diane Enroughty
Terrell Burch	Eric Chun	Dana Dellinger	Douglas Erb
Jim Burger	InYong Chung	Steven Demarzio	Khamla Erskine
Anne Burkholder	Vita Ciullo in memory of Michael Shelton Dawkins	Karen DeMeo	Bil Essling in honor of Nick Hopp & Diana Devries
Carnita Burnett	Brandon Clark	Alma DeMetropolis	Isauro Estevez
Ursula Burns	Eoin Clarke	Jinjun Deng	Robert Evans
William Burr	Toby Clarke	Patricia Desfosses	Steven & Geraldine Evans
Teri Buseman	Mark Clifton	Angela Detzel	Jeffrey Evelhoch
John Bushell	Gordon Climer	Emily-Anne Deutsch ◆	Oliver & Negin Ewald
Laura Butler	Kellie Cloud	Amy Devine	Christopher Eynatian
Lynne Cacciola	Frédéric Clulow	Sanjay Devnani	Randall Fahey
Victor & Barbara Calaba	Philip Coburn	Debadeepta Dey	C. Falar
Donald Callan	Robin Coger ■	Aditya Dharap	Vickie Falzarano
William Cammuso	Bryan Cohane	Martha Dickey	Wadih Fares
Briana Campbell	Ken Cole	Huyen Diep	Jacob Farkas
Pamela Caraballo	Catherine Coleman	Joseph DiFilippo	Susan Farnham in memory of Nicole Jachna
Scott Caradonna	Deborah Collins	Sami Dilaveri	Aaron Feldman
Thomas Carlone ◆	Karen Collins	Elizabeth Dill in honor of Casey Dill	Mariel Feller
Jill Carlson	Radu Coman	Jason & Chris Dillon	Jeff Fenstermaker
Thomas Carney in honor of the Gunn Davidson Wedding	Patrick Connelly	Kevin Dinh	Brittany Ferm ◆
Daniel Cartoon	Joanna Contreras	Eric Dipple	Carlos Fernandez
A.A. Carty	The Leon & Toby Cooperman Family Foundation	Elda Di Re	Sarah Ferraro
Ryan Carver	Maggie Corbett	Filomena DiSisto & John Mancini	Jennifer Fillingames
Sarah Castelblanco	C.J. Cornelius in memory of Nicole Jachna	Irwin & Janet Dorros	
Devin Castellucci in memory of Rebeca Castellucci		Jennifer Dorsey	
Marianne Caswell in honor of Austin		Edward Dougherty	
Rick Caudle		Sarah Douglas	
Stephen Caulk		Dragons Team 5229	
		David Drechsler	
		The Drexler Family Foundation	

■ Member of the *FIRST* Board of Directors ▲ Member of the *FIRST* Executive Advisory Board ● *FIRST* Honorary Director ◆ *FIRST* Alumni ✱ *FIRST* Senior Advisor ♥ Matching Gift

Ilga Finkelshteja
 Christopher Finley
 Andrew Firman
 Corey Fisher
 Erin Fleck
 Joseph & Carolyn Fleischer
 Cherrie Fleisher-Strauss & Leslie & Simon Strauss
 Eric Fleming
 Laurie Flint in memory of Paul R. Frisch
 Howard & Margaret Fluhr
 George Fogwell
 Hao Fong
 Sean Forbes
 Charles Forth
 Justin Foss ◆
 Amy Foster
 Ryan Fowler
 Sergio Franco
 Carolyn Frankowski
 Mary Fraser
 Lance Freedman
 Danny & Althea Freitas
 Shay Freundlich
 Margo Frey
 Adam Friedlander
 Melissa Frye
 Grant Fu
 Brian Furciniti
 Vamsi Gadireddy
 Peter Gael in memory of John Brassfield
 Michelle Gagnon
 Cara Galli
 Lisa Gallo
 Jon Galloway
 Victor & Patricia Ganzi
 Dean Gao
 Eric Gao
 Nathan Gassmann
 Bill & Melinda Gates Foundation
 Robert Gault
 Paul Gautreaux
 Dimitri Geier
 Dmitry Genkin
 Leslie George
 Maryann Germita
 Sunil Gharat
 Tristan Gibeau
 Jason Gilbert
 Joel Gilbert
 The Rosalinde & Arthur Gilbert Foundation
 Laura Gill
 Michael Gindl
 Mark Giordono
 Neal Girard
 Bryan Gislason
 Bruce Gitlin
 Ellen Van Glahn
 Katrina Gloriani

2017 WOODIE FLOWERS AWARD

Developing a Strong STEM Community



The Woodie Flowers Award recognizes mentors who inspire their students to understand the challenges, opportunities, and satisfaction involved in the discipline of engineering and design. **In 2017, it was awarded to *FIRST* Robotics Competition mentor Glenn Lee.**

A former electrical engineer, Lee began teaching at Waiialua High and Intermediate School in Waiialua, Hawai'i in 1994. In 1999, Lee co-founded *FIRST* Robotics Competition Team 359, "Hawai'iian Kids," the first robotics-related program in the state. He believes robotics is a catalyst for opportunity and has inspired hundreds of students by sharing his knowledge, dedication, and enthusiasm.

Yearlong, Lee and Team 359 spread the mission and reach of *FIRST*. In Hawai'i, they mentor local teams and have worked with Hawai'iian legislators to expand access to *FIRST* programs and create STEM opportunities. Lee has also worked as an ambassador to expand *FIRST* Robotics Competition programs in China, Australia, and Japan. He embodies Team 359's motto: "it's not about winning ... it's about teamwork, commitment, and responsibility!"

Lee is described by his students as the linchpin for Team 359. He is a small part of the overall function of the team, but also one of the most vital, holding together hundreds of *FIRST* youth, families, mentors, and colleagues from around the world.

2016-2017 Contributors continued

Kristy Glynn	Lauren Harris	Sharon Jadrnak	Ashish Khetan
Scott Godin	Lonnie Harris	Joe Jagadics ♦ in memory of David Nolff	Mo Kianidehikian
Ankit Goel	Marcy Harris	Nazuk Jain	Wes Kilker
Elizabeth Goff	Andreas Hart	Nandita Jakkidi	Shawn Kilty in honor of Alan Kilty
Dilip Gokhale	Jennifer Hartel	Bill Jansen	Changwook Kim
Susan Gold	Dean Hawkinson	Jim Jarvis	Jim Kim
Jonathan Goldman in honor of Richard Brownell	Barbara Hayes	Pam Jasper	Jon Kim
Alfred Goldstein	Stephen & Lynn Hazard	Lauren Jefferson ♦	Jungtae Kim
Jeffrey & Doris Goldstein	Matthew Healy	Oliver Jenkins ♦	Lloyd Kim
Max Goldstein	George Heaton	Jerry Jerome	Lori King in honor of Jarett King
Monti Gong	Barry Hecker in memory of Annette Barbash	Donna Franke Jeske	Robert Kissell
Peddaredappa Gonichettipali	Lynne & Henry Heilbrunn	Caroline Jessen	Josephine Klapperich
M.M. Gonzalez	Keven Hempel	Jiacen Jiang	Kathleen & George Clinich
Christopher Goodbread	Ryan Henderson in honor of Sigma Phi Delta Beta-Rho Chapter	Bochen Jin	Keith Knapp
Edward Goodman	John Henry	Jessica Johansen	Ben Knight
Jared Goodman	Adam Herbst	Kenneth Johnson	Jesse Knight
Akshob Gopalakrishna	Theresa Hermel-Davidock	Lee & Jana Johnson	Stefanie Koenig
James Gorham	Paul Hernandez	Mark & Carol Johnson	Jeffrey Kohlman
Timothy Goudge	Nancy Herper	Melissa Johnson	Daniel Kohn
Robert Graham	Bryson Hicks	Nancee Johnson	Mison Kollarik
Jordan Grant ♦	Marc Hodosh ▲	Nicole Johnson	Uday Kolli
Kati Grass in memory of Jeremy Hertzberg	Travis Hoffman	Randall Johnson	Harsha Konduri
Helen Greathouse	Ulrike Hoffman-Burchardi	Tara Johnson	William Kong
Peter Green	Darryl Holdsworth	Timothy ♦ & Kim Johnson	Derek & Angela Konigsberg
Andrea Greenan	Lois Holler	Brian Johnston	Atin Kothari
Christopher & Teresa Greene	Jerome Holman	E.J. Jones	Marat Kotik in honor of Sigma Phi Delta
Mark & Melissa Greenlaw	Heddi Holmes	Kelly Jones	Steven Kowalski
Lisa Greenlee in honor of Chesapeake Technology	Robert Holmes & Pamela Abbott	Godwin Joseph	Daniel Krach
Thomas Griffin	Jennifer Holmgren	Dmitry Kachan	Monica Krantz
Christopher Grontkowski	Howard Honig	Bailey Kahl ♦	Heidi Kranz
Adam Grunfeld	Ramona Hood	Maria Kalish	Matthew Krever in honor of <i>FIRST</i> Robotics Competition Team 747
Sunny Guan ♦	J. Hornsby	Pamela Kan	Deborah Krieg
Linda Ness Gulley	Matt Houghton ♦ in honor of Melinda	Sekhar Kancherlapalli	Katavah Kring
Xiaoping Guo	Joseph Houle	Dongyon Kang	Bill & Beth Krueger
Yumin Guo	Marc Howard	Harsha Kiran Kanna	Sarah Kueser in honor of Kim Mackey, Jr.
Ross Gustafson	Jerel Howell	Aneesh Kannankara	Vidya Kukke
Dan Guttman in honor of Matt Ferrisi	Mark Howland	Shobana Kapoor	The Kunkel Family Foundation
Paul Guyermelli	Jill Hrubecky	Timothy Karabian	Steve Kurtz
Mark Guzzo	Chunhua Hu	Sudarshan Karappilli	George Lacherza
Derek Haas ♦	Emma Hu	Bala Kasi	Michael Lacy in honor of Roger Lacy
Thomas Habig & Jane Kammer Habig	Yan Huang & Qinan Zhang	Allen Kassen	Lisa Lafayette
Kris Hackenson	Jennifer Hudak	Richard & Jane Katzman Foundation	John Lai
Stefan Hafenegger	Christopher Hughes	Diane Kauffman	Bradley Laing
Bob Hagh ♦	Kent Hughes ▲	Max Kaznady	David Lam
Michael Hale	Jason Hui	Andrew Keep	Robert Lamaute
Joseph Hall	Amy Lynn Hunt	George & Barbara Kelley	Christian Lambertz
JoAnn Halloran	Jon Hunter	Erika Kelter	William & Beth Landman
Barry Hamilton	Hutchison Family Fund	Charles Kennedy	Greg Landrum
JooHo Han	Janna Hutz	Patrick Kennedy	Etienne Goulet-Lang
Scott Hannula in memory of Nicole Jachna	Simone Iaci	Muhtar Kent ■	Kristina Latha
Harsha Hardhagari	Clarence Ince	John Keough	Sunita Lavin
Tomer Harpaz	Gaetan Issombo	Alexander Kernbaum & Nicole Boxerbaum	Brady Law ♦
Traci Harrell	Sankaran Iyer	Ben Kershaw	E.J. Layne
Glenda Harris	Suresh Iyer	Mr. & Mrs. Steven Kerstein in memory of Roy Finamore	Gavin Lebate
	Liz Jackson	Cheryl Gorman Ketchum in memory of Roy Finamore	Cheyenne Lee
	Richard Jackson		David Lee
	Michael Jacob		

■ Member of the *FIRST* Board of Directors ▲ Member of the *FIRST* Executive Advisory Board ● *FIRST* Honorary Director ♦ *FIRST* Alumni * *FIRST* Senior Advisor ♥ Matching Gift

2016-2017 Contributors continued

Howard Lee	Stacey Maalouf in honor of Ms. Hong	Miriam Melnick	Daniel & Jeanine Nadler
Ji Hyang Lee	Doug Maass	Michelle Mendivil in honor of Heritage H.S. & Erick Mendivil	Eric Naess
Mitchell Lee ♦	Betsy MacDonald	William Mercado	Hareesh Nagaraj
Susan Lee	John & Dudley MacFarlane	Scott Meredith	Rahul Naik
Scott Legasse	Scott Mackenzie	Nicholas Mesenburg	Umesh Naik
Margaret Lehman in memory of Zachary Lehman	Sophia Macris in honor of Harrison Macris	Dayal Meshri	Lalitha Natarajan
Sharon Leitch-Donnelly	Srinivasa Madati	Scott Messick	Joe Nazario
Oscar Leon	Sonal Mahendru	Aaron Meyer	Jose Nazario in honor of Jose Nazario
Simone Leorin	Cristina Mahon	Monte Michaelis	Cecilia Neumann ▲
Laurie Leshin ■	Minh Tuyá n Mai	Rebecca Mikolajczyk	Robson Neves da Silva
Tom Letendre	Zachary Maier ♦	Colin Mildemberger	Ryan Newlin
Greg Lewis	John Mainieri	David & Diana Milich	William Nguyen
Sean Lewis	George Ho Yin Mak	Dan & Kimberly Miller in honor of Scott & Kristin Anderson	S.E. Nibbe
LHB Foundation Fund	Pamela Maker	Miller Family Charitable Foundation	Max Nibert
Brian Li	Gail Makulowich in honor of John Makulowich	Judith Miller	Karen Nichols
Gang Li	S. Malik	M.A. Miller	Prasanna Niphadkar
Jie Li	Amy Mangrum	Michael Miller	Craig Noble
Jing Li	Carrie Mann	Christina Milligan	Joshua Noble ♦
Junyi Li	Melissa Mann	Colleen Milligan	Richard Nolan
Mo Li	Kenneth Mantey	Karen Mink	Linda Nordstrom
Wei Li	The Marcus Foundation, Inc.	Talhah Mir	Matt Nowell
Xiaodong Li	Chris Marra ♦ in honor of Al Mothersele	Eric Miraglia	Gene O'Brien
Christopher Liao	Greg Stanton Marra ♦	Jeffrey Misiewicz	Jennifer O'Callaghan
Susan Liddie	Michael Marshall	William Miskoe	Jim O'Connor
Qing Lin	Kip Martell	Alice Mohr	Kevin O'Connor
Shi-Key & Irene Lin	Juan Carlos Martinez Jr.	Rita Mollica in memory of Michael Shelton Dawkins	Kevin O'Connor in memory of Roy Finamore
Trudy Lindsley in memory of John Shipp	Marshall Massengill ♦	Atossa Montaser	Morris Offit
Michele Linhardt	Kevin Matherson	Claudia Monteiro	Bruce O'Hurley ♦ in honor of Mark Dotterweich
Laurie Liss in honor of Marie Finamore	Anne Mathieu in honor of Katie Mathieu	Joanne Monty	Okem Okolo-Ebube
Gregory Little	James Mathison	Alex Moon	Tyler Olds ♦
Mark Livschitz	Scott Matloff	Aaron Moore	Jesus Enrique Olivares
Rachel Lloyd	Melissa Matsuoka ♦	John Mora	Chris Oliver
Vida Lloyd	Julie Matteini	Roberto Morales	Chelsea Olson
Jack & Jean Loew in memory of Henry Villaume	Brian Mattson	David Mordecai	Mr. & Mrs. Thomas Olson
Guy Lohman	Samir Mayekar	Rey Moré	Patty Donnelly O'Malley
Lyle Lohman	John McCarthy	Richard More	Dogan Onay
Devin Lombard	Kyle McClellan	Dina Morgan	Kyran O'Neill
Greg Long	Stephen McClellan & Elizabeth Barlow	Rebecca Morgan in honor of the WICT Tech It Out Speakers	Justin Ott
Jeremy Long	Raquel McCollough	Aaron Morse	Erick Ozbun
Michelle Long & Isaac Mishkit	Jonathan McCoy	Donna Morse	Amol Pai
Paul Long	Sheri McCoy	Amy Motta	Sheila & Achinto Pal
Robert & Rosalie Long in memory of Nicole Jachna	Barbara McGuan	B.T. Mueller	Lisa Palathingal
Juan Lopez	Susan McKay	Brian Muirhead	Venkata Raghuram Pampana
Andrew Loulousis	Jeffrey McKittrick	Jennifer Mulcare-Sullivan	Hong Pan
Mike Lozano in honor of Mariah Lynn Argyilan	Andrew McLeod	MultiView in honor of Mouser Electronics	Kai Pan
Jamee Luce	Jacqueline McMullen	Tina Mulvihill	Dwight Panozzo
Maxim Lukiyarov	Tyrone & Lisa McNichols	Christopher Munley	Ravi Papisetti
Kent Lulich	Gillian McPhee & Greg DiCostanzo	Maria Murillo	Sarah Park in honor of Benjamin Fernandez
Min Luo	Jeremy Medford	Marian Murphy	David Parks
Nicholas Luther	Hailie Meehan	Sudipti Murphy	Daniela Pasillas ♦
Bethny Lynch	Archana Mehta	D.T. Murray	Millan Patel
Gerard Lynch in honor of FIRST Robotics Competition Team 747	Kevin Meier	Mike Murtagh	Lisa Peak
John H. Lynch ■ & The Lynch Family Charitable Foundation	Stephen Melamed	Pam Myers	Doug Pearce
	Robert Mellinger in memory of Michael Shelton Dawkins	Robert Myers	Glen Pearson
		Karen Myhr	Jonathan Pederson
			L.C. Pederson

■ Member of the FIRST Board of Directors ▲ Member of the FIRST Executive Advisory Board ● FIRST Honorary Director ♦ FIRST Alumni * FIRST Senior Advisor ♥ Matching Gift

2016-2017 Contributors continued

Ting Pei	Lee Reichman	Lois Sayrs in honor of Daniel Cohen	Gayle Shull in memory of General Robert (Bob) M. Shoemaker
Daniel Pelletier & Mudita Bhargava	Julie A. Reider	Kristi Scarpone	Alex Shum
Yunan Peng	Matthew Reif in memory of Kristopher J. Stallman	Richard Schaden	Frederick Siegel
Arnold S. Penner Foundation Inc.	Stephen Reinert	Sara Schafer	Jeffrey Siegel
Ann Perenyi in memory of Henry F. Villeneuve	Karlo Reyes	Richard Schaffer	Rustin Silberstein
Eric Perkins	Gavino Reyes-Ramon	Jody Schanaman in memory of Kerry Schanaman	Tamara Simon
Dan Perlman	Roy Riccomini	Mark & Juanita Schemel	Lisa Simons in memory of Len & Freda Smith
Abigail Perry	Jamie Rich in memory of Ethel E. (Rich) Carlson	Matthew Schera	Spencer Simonsen
Kyle Persohn	Jamie Rich in honor of Mark Giordano	Judith Schierts	Stephanie Sims
Anne Peterson in memory of Henry Villeneuve	Adriana Richards	Randy Schiestl	Carol Singer & Daniel Singer Bricklin
Bryanne Peterson	Jacqueline Richardson	Lisa Schirf	Anushree Sabhajit Singh
Steve Peterson	Max Richter in honor of Gary Friedlander	Rachel Schmidt	Arvind Singh
Dmitrij Petters	Ariel Rideout	Diane Schmit	Apoorva Singhal
Keith Pflieger	Keith Rieck	Kenzie Schmitt in honor of Daryl Schmitt	Roy Sivley
Stephen Philpott	R. Rigopoulos	Mark Schnesk in memory of Nicole Jachna	Parker Slater
Rachel Philyaw	Stephen Riley	Edward Schorr	John Sleath
Jason Pickard	Heather Rippere	Matthew Schouwink	Stephanie Sloan in honor of Nate Coles & Ashley Walker
Chris Picone ♦	Cristina Roark	Tawnya Schrank	Janee Smith
Stephen Pierce ♦	Garth Roark	Cindy Schroeder-Hennes	Janet Smith
Jennifer Pike	Donald & Sylvia Robinson Family Foundation	Mark Schutte in memory of Pat Miller	Michael Smith
Sachin Pisal	Gary Rodgers	Fred Schwamie	Shon Smith
Michael Pokrandt	Stephanie Rodgers-Ahnen	Karen Schwander	David Sobeck
Naresh Pola	Edmundo Martinez Rodriguez	Charissa Schwartz ♦	Andrea Sobel in memory of Terry Colbert
Tom Polen	Tanya Rodriguez Diaz	Jonathan Schwartz	Andrea Sobel in memory of Patricia E. Klotz
Garrett Ponder	Michelle Roehl ♦	Steven Schwartz	Nathan Sobo
Brad Poppe	Ron Roelker	George Schweitzer	Kurt R. Soderlund
Lisa Porco	Charles Rogers	Anthony Scott	Stanislav Sokorac
Michael Porter	Miriam Roiter	Justin Scott	Glenn Solomon
Thomas Preston	David Roman	Erik Sechser	Miriam Somero
Jane & Thomas Propst	Nicholas Romano	Edward Seeley	Daniel Soto
Mike Pruszinske	Matthew Romero	J.M. Serra	Eileen Span
Kimberley Prygocki-Jeakins ♦ & David Jeakins	Lisa Rose-Fallon	Vanessa Serrano	Jane Spiegel
Mike Pufpaff	Tami Rosen	Iman Session-Brown	Kelly Spier
David Pugh	Rebecca Roser	Elizabeth & Spencer Seufert	Tobey Spitzer in honor of Paul Frisch
Michael Purvis	Angie Roth	Lisabeth Shablin in memory of Nicole Jachna	Omiros Stamelos
Rodney Qualls	Heather Roundtree	Chintan Shah	Thomas Stanis
Leslie, Eileen, Peter & Crisler Quick	Sanchita Roy	Samarth Shah	Lisa Statchen
Keyne Quiroga-Anania in memory of Nicole Jachna	Mark Rushing	Venkat Shan	Thaddeus Stefanov-Wagner
Colette Rabacs	Russell Charitable Fund	Yunlong Shao	James Steiner
Arjun Rad	Christine Russom	Neal Shapiro	Tim Stensby
Philip Radomski	Nick Ruzek	Ralph Shapiro in honor of Andre & Maria Heinz	Roseann & Mark Stevens
Kartik Raghavan	Jarda Ruzicka	Barry Sharp	Linda & Ken Stewart
Harvind Rai	Conor Ryan	Yosif Sharrak	Nicholas Stewart
Srinivasan Rajendran	The Ryan Family Foundation	Gary Shaye	Aaron Stilson
D.L. Rall	Oren Ryngrer	Jingyi Shen	Richard Stocking
Abhishek Raman	Elias Safar	Xudong Sheng	Ted Stokes
Anand Raman	Ezmeralda Sager	Nishant Shenoy	Dia Stolnitz
Juanita Randall	Abel Salazar	Eric & Mary Sherk	Lisa Stone
Jenny Rankin	Sidney San Martan	Yun Shi	John Strand
Arjun Rao	Krishna Chaitanya Sanka	Jason Shirtliff	W. Strecker
Richard Rauh	Erik Santiago	Randy Shuai	Ben Streeter ♦
Murali Ravel	Dilip Sathe	Charlie & Gayle Shull in memory of Donald Wollek	Timothy Strimple
Marjorie Rawhouser	Sohil Sathyanathan	Gayle Shull in honor of Elizabeth & Joe Amato	Elizabeth Su
Farhan Raza	Marjorie & Kenneth Sauer		Siva Subram
Justin Rego	Stephanie Saunders		Shreejit Sugathan
Rona Reich			

■ Member of the FIRST Board of Directors ▲ Member of the FIRST Executive Advisory Board ● FIRST Honorary Director ♦ FIRST Alumni * FIRST Senior Advisor ♥ Matching Gift

2016-2017 Contributors continued

Samantha Suryadevara
 Maryana Svyatskiy
 Debra Swedberg
 David & Deborah Swenson
 Clinton Swett
 Michael Sydney
 Nicolas Sylvestre ◆
 Frank Szita
 Karim Tabet
 Linda Taifouri
 Amin Tanzil
 Melinda Tappen
 Emily Tarbert
 Penelope Tarrant
 Joseph & Arlene Taub Foundation
 Harold Taylor
 Julia Teitelbaum in honor
 of David Kosbie
 James Temple ◆
 Sonca Teng
 Samnang Tep
 Dean Theodos
 Paul Thim
 Kevin Tigges
 Katrina Timko
 Ana Timmins in honor of
 Paul & Chi Timmins
 Shelbe Timothy
 Linda Tingley
 Malick Toguyeni
 Rasam Tooloee
 John & Margaret Torell
 Pedro Luis Tovar
 David Trejo
 Jhon Trujillo
 Sharon Trumpy
 Antony Tseng
 John Tsikerdanos
 Tyler Tucker
 Brian & Kerri Tully
 Mr. & Mrs. Joseph Turckes
 Dylan Turnbull in honor
 of Connor Sexton
 Jennifer Tyll
 Laura Tynan in memory
 of Nicole Jachna
 Sinaida Ugrinsky
 Paul & Judy Ulland
 Darrel Untereker
 Michael Urban
 Haley Urbon
 Mike Uretsky
 Larry Vadakedathu
 Sheri Vammen
 Maarten Van De Bospoort
 Michael Van Glahn
 Michael Van Glahn Jr. ◆
 Donna Van Ness
 Geetha Varadarajulu in memory
 of Rukala N. Varadarajulu

Heather Vargas
 Swapna Varma
 Joe Varnell
 Tejas Vashi
 Vincent Vasquez
 Rama Vedula
 Santiago Velazquez
 Vishak Venkatraman
 Davide Vieira-Leal
 Anup Vijay
 Deeksha Vimmadisetti
 Mark Vissering
 Alberta Vitale in memory of
 Jim Buffa (Founding
 Mentor *FIRST* Robotics
 Competition Team 558)
 Valerie Vogt
 Dave Voyles
 Samantha Vuong
 Lynn Wachtmann
 Lucas Wagner
 Stephen Waldman
 George Walsh
 Frank & Marguerite Walter
 Baoyuan Wang
 David Wang
 Ivan Wang
 Jade Wang
 Kai Wang
 Sisi Wang
 Tim Wang
 Yan Wang
 Allison Wasklewicz
 Josh Wasserman
 Nina & Arnold Wasserman
 Amelia Watkins
 Timothy Watkins
 Gary & Nancy Webber
 M.B. Weingarten
 Shawn Weisfeld
 The Weiss Foundation
 Samantha Welch
 Eric West
 Vincent Westin
 Jennifer Weston
 Bruce Wheton
 Timothy White
 Jordan Whitfield
 Shierly Wibowo
 Brian Wilhite
 Heatharlyne & Jeff Wilkes
 Chris Willett
 Adrienne Williams
 Michael Williams
 Jeffrey Willingham
 Sherri Wilson in honor of
 Bainbridge Island Spartronics
 David Winegar
 Danielle Winget in honor
 of Ferd Winget, III

Moni Wolf
 June & Steve Wolfson
 Family Foundation
 Alex Wolowiecki
 Daniel Wolter
 Alan W. Wong & Wendy
 Guan Wong
 Gail Worm
 Nancy Worsham
 Timothy Wright
 Wan Wu
 Xuan Wu
 Bruce Wyder
 Jerry Wynes
 Yining Xia
 Ying Xiao
 Roy Xie
 Li Xin Xu
 Mingsen Xu
 Sherry Xu
 Ying Xu
 Huili Yan
 Yu Yang
 Yuan Yang
 Connie Yao
 Michael Yap
 Lakshmi Kiranmayi Yeddanapudi
 Grace Yee
 Michelle Yepez
 Philip Youngblood
 Casey Yu
 Iris Yuster
 Aleksandar Zambelli
 Louise Zarrilli & Christopher
 Sargente
 Clifton Zawasky in honor of
 B. Spencer Zawasky
 Nina Zeng
 Xiao Zeng
 Lei Zhang
 Ling Zhang
 Nancy Zhang
 Sally Zhang
 Shengyi Zhang
 Yiping Zhang
 Yunnan Zhang
 Zoey Zhou
 Andy Zhu
 Elizabeth Zimmer
 The Joyce & Bernie
 Zimmerman Foundation
 Daniel Zuck

**THE DR. BART KAMEN
 MEMORIAL FIRST
 SCHOLARSHIP FUND
 CONTRIBUTORS**

John Abele ■ / Argosy Foundation
 Frank DeLorenzo
 Jay Duchin
 Marcia Smith Fleres
 Margaret Frankian
 Bahi Ghazal
 Tuan Hoang
 Marc Hodosh ▲
 Robert Illes
 Dean Kamen ■
 Kaplan Simons Family Foundation
 George Lanigan in memory
 of Claire C. Toohey
 Richard Lanigan in memory
 of Claire C. Toohey
 Lloyd Lee
 Lively Group
 Minh Nguyen
 Van Nguyen
 Anne Ortwert & Mary Gunter
 Judith Peritz
 Ethel Rubinstein
 Lois Sayrs
 Dana & Kathy Seero
 Linda Stone
 Maureen Toohey
 Gary ● & Diane Tooker
 Family Foundation
 Maria Edith Tuiza
 Robert Tuttle ■
 James Utaski ●
 Josh Weston *
 Mr. & Mrs. Vincent ■ Wilczynski
 Sandi Willsey

2017 FIRST ALLIANCES

Alpha Omega Epsilon (A.O.E.)
 American Society for Engineering
 Education (ASEE)
 Automation Federation/ISA
 Boys & Girls Clubs of America
 Electronics Components Industry
 Association (ECIA) Foundation
 Girl Scouts of the USA
 MIT Alumni Association
 National 4-H Council
 National Center for Women &
 Information Technology (NCWIT)
 National Fluid Power
 Association (NFPA)
 National Parent Teacher
 Association (PTA)
 National Robotics Week
 Sigma Phi Delta (SPD)
 Society of Hispanic Professional
 Engineers (SHPE)
 Society of Women Engineers (SWE)
 Yale Science & Engineering Alumni

**2016-2017 SEASON
FIRST LEGO LEAGUE JR.
SPONSORS**

PROGRAM SPONSOR



TOP TEAM SPONSORS

(10 or more teams in 2016-2017)

Sponsors in this section are listed in descending order starting with the sponsor of the highest number of teams.

John Deere
DoD STEM
LEGO Foundation
Youth Fusion
The Dow Chemical Company
United Technologies Corporation (UTC)
Rockwell Automation, Inc.
Science Applications International Corporation (SAIC)
Lockheed Martin Corporation
Cognizant
Tennessee Valley Authority
Qualcomm Incorporated

**2016-2017 SEASON
FIRST LEGO LEAGUE
SPONSORS**

FOUNDING PARTNER



GLOBAL SPONSORS



**FIRST LEGO LEAGUE GLOBAL
INNOVATION AWARD**

Partners in Innovation

Booz Allen Hamilton, Inc.
LEGO® Education
NRG Energy, Inc.

Global Innovation Collaborators

John Deere
Rockwell Collins Inc.
XPRIZE®

In Cooperation with

The United States Patent & Trademark Office

TOP TEAM SPONSORS

(10 or more teams in 2016-2017)

Sponsors in this section are listed in descending order starting with the sponsor of the highest number of teams.

DoD STEM
Tennessee Valley Authority
John Deere
Youth Fusion
Rockwell Automation, Inc.
Lockheed Martin Corporation
The Dow Chemical Company
United Technologies Corporation (UTC)
Cisco Systems, Inc.
The Boeing Company
Apple
Leidos, Inc.
M.J. Murdock Charitable Trust
Rockwell Collins, Inc.
Science Applications International Corporation (SAIC)
Caterpillar, Inc.
Raytheon Company
Motorola Solutions Foundation
National Aeronautics & Space Administration (NASA)
Google, Inc.
Monsanto Company
TE Connectivity
Booz Allen Hamilton, Inc.
GE Healthcare
Bechtel Group Foundation
GE Energy
Qualcomm Incorporated
United Therapeutics Corporation

**2016-2017 SEASON
FIRST TECH CHALLENGE
SPONSORS**

SEASON PRESENTING SPONSOR



OFFICIAL PROGRAM SPONSOR



**OFFICIAL IOT, CAD &
COLLABORATION SOFTWARE
SPONSOR**



TOP TEAM SPONSORS

(10 or more teams in 2016-2017)

Sponsors in this section are listed in descending order starting with the sponsor of the highest number of teams.

PTC, Inc.
DoD STEM
DEKA Foundation
Qualcomm Incorporated
Alcoa Foundation
Lockheed Martin Corporation
John Deere
M.J. Murdock Charitable Trust
Rockwell Collins, Inc.
The Boeing Company
Caterpillar, Inc.
Rockwell Automation, Inc.
United Technologies Corporation (UTC)
Google, Inc.
Monsanto Company
The Dow Chemical Company
Tennessee Valley Authority
Leidos, Inc.
Best Buy Foundation
TE Connectivity
Bechtel Group Foundation
Apple
Motorola Solutions Foundation
National Aeronautics & Space Administration (NASA)
BAE Systems
NRG Energy, Inc.
United Therapeutics Corporation

**2016-2017 FIRST ROBOTICS
COMPETITION SPONSORS**

SUPPLIERS

Crown Suppliers

3M Company
AndyMark, Inc.
Autodesk, Inc.
Bimba Manufacturing
CTR Electronics
EnerSys
FedEx Corporation
Gates Corporation
igus® Inc.
Innovation First International
NI
Onshape Inc.
PTC, Inc.
REV Robotics
Rockwell Automation, Inc.
DS SolidWorks Corporation
Underwriters Laboratories, Inc. (UL)

Diamond Suppliers

Analog Devices Inc.
AutomationDirect.com
Bishop-Wisecarver Group
BURNDY® LLC
GitHub, Inc.
Philips Lighting
WPI

Gold Suppliers

CollabNet
Digi-Key Electronics
Festo
Fluke Corporation
IBM Corporation
Inventables
MaxBotix Inc.
Novelis Inc.
NVIDIA Corporation
Open Mesh Networks
Parker Hannifin Corporation, Fluid System Connectors Division
Ruland Manufacturing Co., Inc.
SolidProfessor
Tableau Software
TE Connectivity
Vulcan Spring & Mfg. Co.
Wolfram Research

Silver Suppliers

Altium
American Button Machines
Anderson Power Products®
Arrobot
BaneBots
Bosch
Clippard Instrument Laboratory
Cooler Master
DENSO/ASMO

2016-2017 Contributors continued

Eaton's Bussmann Division
 ebm-papst Inc.
 Freelin-Wade
 IMI Precision Engineering
 Kent Elastomer Products, Inc.
 Kepware Technologies
 Mastercam / CNC Software, Inc.
 MISUMI USA
 Next Gen Robots LLC
 Sapa Extrusion North America
 Texas Instruments Incorporated
 Tormach
 TransCOR Information Technologies

Bronze Suppliers

Belden, Inc.
 CUI Inc.
 Cypress
 Delphi Automotive PLC
 ECIA—Electronic Components
 Industry Association
 Haydonkerk Motion Solutions
 an AMETEK Co.
 The Heinlein Prize Trust
 Honeywell Sensing &
 Productivity Solutions
 HPE Automation
 Kauai Labs
 Law Logistics

Microsoft Corporation
 NASON
 No Starch Press
 PHD, Inc.
 Qualcomm Incorporated
 Robopromo.com
 RoboRealm, LLC
 Robroy Enclosures Inc.
 The Siemon Company
 Techplex Labs
 Triangle Manufacturing Company
 Walt Disney Imagineering
 WestCoast Products

Contributors

Avnet
 Diamond Technologies
 Epec Engineered Technologies
 Hitec RCD USA, Inc.
 Marsh Electronics
 Panasonic Industrial Devices
 Sales Co. of America
 Riedon, Inc.
 Screensteps
 Spemco Switches
 Starship Technologies
 The XPRIZE Foundation
 Xilinx

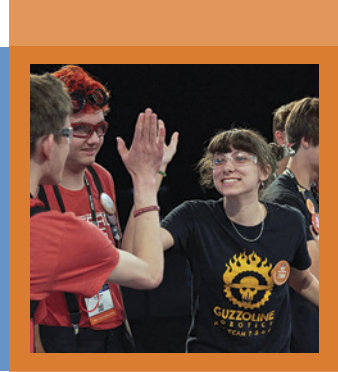
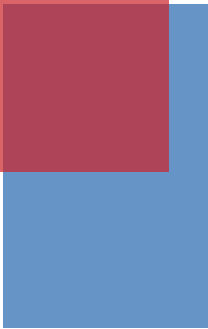
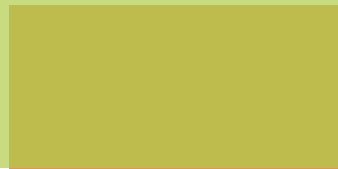
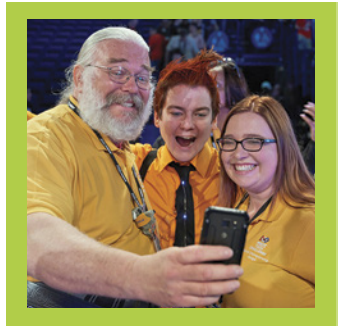
TOP TEAM SPONSORS

(20 or more teams in 2017)

Sponsors in this section are listed in descending order starting with the sponsor of the highest number of teams.

National Aeronautics & Space
 Administration (NASA)
 Argosy Foundation
 DoD STEM
 PTC, Inc.
 United Technologies
 Corporation (UTC)
 Lockheed Martin Corporation
 BAE Systems
 General Motors Company
 Florida Atlantic University (FAU)
 University of Central Florida (UCF)
 Brin Wojcicki Foundation
 Ford Motor Company
 Medtronic Foundation
 Apple
 The Boeing Company
 Google, Inc.
 Rockwell Automation, Inc.
 Leidos, Inc.
 Monsanto Company
 NVIDIA Corporation
 The 3M Company

Comcast NBCUniversal
 Boston Scientific Corporation
 Bechtel Group Foundation
 Picatinny STEM
 The Dow Chemical Company
 Booz Allen Hamilton, Inc.
 Tennessee Valley Authority
 Raytheon Company
 Caterpillar, Inc.
 John Deere
 Abbott Fund
 NRG Energy, Inc.
 Motorola Solutions Foundation
 GE Energy
 Bosch
 GE Healthcare
 Pentair Foundation
 Society of Women Engineers (SWE)



FIRST[®] prepares students for life beyond high school

• Create community • Grow your network • Find internships • Inspire others

ALUMNI

Highest degree expected:

34% Bachelors

41% Masters

19% Doctorate



43%

of alumni still involved in FIRST:

26% are mentor/coaches

18% volunteer at events

15% volunteer (other)

FIRST Alumni gained skills and attitudes needed in today's workforce:

90% Problem Solving Skills

90% Teamwork

87% Innovative Thinking

85% Creative Thinking

85% Perseverance

79% Leadership

FIRST strengthened post-high school success:

83% more confident in leadership roles

78% more confident in time management

74% more prepared for college courses

72% gained access to mentors and peers in STEM

College majors:

54% Engineering

32% Computers/Programming

22% Science

11% Math

78%

of all alumni:

68% of all female

82% of all male

are in STEM fields



FIRST Scholarship Program



In 2017, as part of the *FIRST* Scholarship Program, nearly 200 *FIRST* Scholarship Providers made available over \$50 million in scholarship opportunities to *FIRST* Robotics Competition and *FIRST* Tech Challenge participants and alumni.

The majority of *FIRST* scholarships are made available by specific colleges or universities for enrollment at their campuses; others are made available by corporations, associations, or foundations for use at a selection of schools. The 2017 *FIRST* Scholarships are listed below.

To learn more about the *FIRST* Scholarship Program, or to make *FIRST* Scholarships available from your institution, please visit: www.firstinspires.org/scholarships

2017 FIRST SCHOLARSHIP PROVIDERS

PLATINUM (\$500,000+)

Capitol Technology University
Clarkson University
Florida Institute of Technology
Illinois Institute of Technology
Johnson & Wales University
Kettering University
Lawrence Technological University
Macquarie University
Massachusetts Institute of Technology (MIT)
Michigan Tech University
Milwaukee School of Engineering
Olin College of Engineering
Rensselaer Polytechnic Institute
Rochester Institute of Technology
Stevens Institute of Technology
University of Advancing Technology
University of Rochester
U.S. Navy ROTC–St. Louis Recruiting District
Webb Institute
Worcester Polytechnic Institute
Yale University

GOLD (\$100,000 - \$499,000)

Boston University
Bucknell University
College of the Atlantic
Daniel Webster College
The Dr. Bart Kamen Memorial *FIRST* Scholarship
Drexel University
Embry-Riddle Aeronautical University–AZ
Embry-Riddle Aeronautical University–FL
Hudson Valley Community College
Indiana University
Instituto Tecnológico Autónomo de México (ITAM)
Jacksonville University
Merrimack College
Northeastern University
Randolph College
Rose-Hulman Institute of Technology
Syracuse University College of Engineering & Computer Science
Tulane University
University of Hartford
University of Missouri–Kansas City
Virginia Commonwealth University (VCU) School of Engineering

SILVER (\$40,000 - \$99,000)

American Society of Mechanical Engineers (ASME)
Arizona State University
Bradley University
Case Western Reserve University
Fairleigh Dickinson University
Hallmark University
Harvey Mudd College
Indiana University–Purdue University Indianapolis (IUPUI)
Lindenwood University
Marquette University
McKendree University
National Fluid Power Association (NFPA)
Northern Arizona University
Northwest Nazarene University Engineering Nuts, Bolts & Thingamajigs Foundation
Pace University, Seidenberg School of Computer Science & Information Systems
Pacific University
Raytheon Company
Seattle Pacific University
SUNY Polytechnic Institute
Temple University
University of Cincinnati–College of Engineering & Applied Science
University of Kansas
University of Minnesota Twin Cities/PTC, Inc.
University of Portland
University of South Carolina, College of Engineering & Computing
University of Southern California Viterbi School of Engineering
University of Texas Arlington
University of Texas at Austin
Vaughn College of Aeronautics and Technology
Washington State University–Volland College of Engineering & Architecture

BRONZE (\$20,000 - \$39,000)

Adelphi University
California University of Pennsylvania
Canadore College
City College of New York
Eastern Washington University
Grand Valley State University
Hofstra University
Lake Superior State University
Make School
Mercer University

Missouri University of Science & Technology
Molloy College
NextEra Energy/Florida Power & Light Company
Nipissing University
Northwestern University
The Ohio State University
Oklahoma State University College of Engineering, Architecture & Technology
Rutgers University
St. Clair College
Southern New Hampshire University (SNHU)
Texas Tech University
University of Maryland, A. James Clark School of Engineering
University of Massachusetts Lowell Engineering
University of Tennessee, College of Engineering
Vermont Technical College
Whitworth University
Xavier University

BRASS (UP TO \$19,999)

American Petroleum Institute
Anoka Technical College
Boise State University
Cleveland State University
The College of St. Scholastica
DePaul University
Eagle Robotics
East Carolina University
Eastern Michigan University
Farmingdale State College
Ferris State University
Gates Corporation
George Fox University
Georgia Institute of Technology
Kansas State University College of Engineering
Los Angeles Robotics/Southern California Regional Robotics Forum (SCRRF)
Maryville University
McMaster University
Metropolitan Community College–Maple Woods
Mineral Area College
Murray State University
New York Institute of Technology
North Carolina Agricultural & Technical University

North Carolina State University
NYU Tandon School of Engineering
Oregon Institute of Technology
Oregon State University
Pennsylvania State University, College of Engineering
Phil Clancy Memorial Scholarship
Plymouth State University
Portland State University
Purdue University
Queen's University
Robert Morris University
Ryerson University–Faculty of Engineering & Architectural Science
St. Louis Community College
ServoCity
SME Education Foundation
Society of Women Engineers (SWE)
South Dakota School of Mines & Technology
Southwestern Michigan College
SpaceX
TE Connectivity
University of Central Missouri
University of Illinois at Urbana-Champaign–College of Engineering
University of Iowa
University of Massachusetts Amherst/PTC, Inc.
University of Minnesota, Duluth
University of Mississippi
University of Missouri
University of Nevada, Las Vegas
University of New Hampshire
University of New Orleans
University of North Alabama
University of Northern Iowa
University of Ontario Institute of Technology (UOIT)
University of Southern Maine
University of Texas at San Antonio
University of Toronto
University of Waterloo
University of Windsor
University of Wisconsin, Madison
Viterbo University
Washington State University–CAHNRS
Western Carolina University
Western Technical College
Western University
York University
Youngstown State University College of STEM

Partners

2016-2017

FIRST LEGO LEAGUE JR.

The following key organizations and volunteers in the field organize the FIRST LEGO League Jr. program in their respective regions.

GLOBAL PARTNERS

Australia

Luan Heimlich
Macquarie University

Canada

ONTARIO

Christine Bibic
FIRST Robotics Canada

NEWFOUNDLAND/LABRADOR

Steven Noseworthy
FIRST Technology Association, Inc.

QUÉBEC

Rachid Abiza
FIRST Robotics Québec

Chile

Lith Pasten
Fundación SparkTalents

China

Eugene Zhang
Semia Limited

Chinese Taipei

Rene Cheng
K Kingdom Inc.

Costa Rica

Natalia Nunez
Aprender Haciendo

Denmark

Nina Sivertsen
Stian Elstad
FIRST Scandinavia

Egypt

Ayman El Kabbany
Techno Future Egypt

Estonia

Heilo Altin
MTÜ Robotika

Greece

Kostas Vasileiou
EduACT

Germany

Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Hong Kong

Eugene Zhang
Semia Limited
The Hong Kong Youth Federation

India

Sudhanshu Sharma
India STEM Foundation

Ireland

Mandy Workman
The Institution of Engineering
and Technology

Israel

Yaarit Levy
Keren Muchnik
FIRST Israel

Italy

Franco Finotti
Stefano Monfalcon
Fondazione Museo Civico di Rovereto

Japan

Hideki Kamoshida
Takahiro Kondo
FIRST Japan

Jordan

Ismail Yasein Hasan
King Hussein Foundation

Lebanon

Ghazi Mtaweh
Cedars Cultural School-Education
and Technology Center

Lithuania

Kristijonas Vasiliauskas
Robotikos Akademija

Mexico

Bárbara Gómez de Navarro
Explora, Descubre Y Crea, AC

The Netherlands

Tamara Derksen
Mark Franken
Stichting Techniekpromotie

Norway

Mariann Johnsen
Stian Elstad
FIRST Scandinavia

Pakistan

Rehan Ahmad
Robo Campus

Panama

Fabiana Pedrini
Plan Ceibal

Qatar

Ismail Yasein Hasan
King Hussein Foundation

Republic of Korea

Professor Kyoung-Mihn Do
FEST (Feeling and Enjoying Science
& Technology Organization)

Russia

Aleksei Kornilov
Maxim Petrov
Oleg Deripaska's Volnoe
Delo Foundation

Singapore

Nualwon Cha-ume
Pittayut Tangsatjatham
Duck Learning

Slovenia

Natalija Premuzic
Zavod Super Glavce

South Africa

Johannes de Vries
Tshwane University of Technology

Spain

Ricard Huguet
Montse Bover
Fundación Scientia

Sweden

Nina Sivertsen
Stian Elstad
FIRST Scandinavia

Turkey

Ozlem Mutlu Dogan
Bilim Kahramanlari Dernegi

Ukraine

Oksana Stoyetskaya
Prolego Ltd.

United Arab Emirates

Khushboo Samkaria
ATLAB Trading, LLC

United Kingdom

Mandy Workman
The Institution of Engineering
and Technology

United States

ADVENTIST ROBOTICS LEAGUE
Mel Wade

ALABAMA

Taylor Whisenant
FIRST in Alabama

ALASKA

Rebecca Soza
Juneau Economic Development Council

ARIZONA

Hilary Mitchell
Arizona State University, College
of Technology & Innovation

CALIFORNIA – CENTRAL

Michael Adam
Santanu Banerjee
Clovis Unified School District

CALIFORNIA – NORTHERN

Jill Wilker
Playing @ Learning

CALIFORNIA – SOUTHERN

Lynn Crockett
LEGOLAND®

COLORADO

Katherine Aschenberg
Colorado Robotics Excelling at
Science and Technology Inc.

DELAWARE

Teshenia Hughes
Eric Cheek
Delaware State University

FLORIDA – CENTRAL

Joyce Walters
Polk State University

FLORIDA – NORTHEAST

Rajiv Gupta
Renaissance Jax

FLORIDA – NORTHWEST

Rick Soria
Dolittle Institute

FLORIDA – SOUTH

Stacey Jones
Green Mouse Academy

GUAM

Charika Garcia
Dr. Ajay Sunga
Science is Fun and Awesome

HAWAII

Sheree Herrera
Hawaii FIRST LEGO League

IDAHO

Timothy Ewers, Ph.D.
Robin Baumgartner
Extension 4-H, University of Idaho

ILLINOIS

Mary Buchanan
Thomas Kleinschmidt
INSciTE Illinois

INDIANA

Carol Dostal
Nicole Mauntel
College of Engineering, Technology
and Computer Science
Indiana University–Purdue
University, Fort Wayne

IOWA

Camille Sloan-Schroeder
College of Engineering,
Iowa State University

KANSAS – LIBERAL

Ramie Wetzberger
Mid America Air Museum

KANSAS – KANSAS CITY

Gretchen Neis
KC STEM Alliance

LOUISIANA

Carol Cancienne
Annette Oertling
BLaST, Inc. (Building Louisiana
Science and Technology)

MARYLAND

Bill Duncan
STEMaction, Inc.

MICHIGAN

Cindy Nader
Gail Alpert
FIRST in Michigan

MINNESOTA

Cheryl Moeller
Jeannie Badger
High Tech Kids

MISSISSIPPI

Eddie Melton
Robotics Alliance of Mississippi

MISSOURI – KANSAS CITY

Gretchen Neis
KC STEM Alliance

MISSOURI – ST. LOUIS

Kathie Reuter
Jill Zuehlke
St. Louis Community College–
Florissant Valley

NATIONAL SOCIETY OF BLACK

ENGINEERS (NSBE)
Brittany Boyd

NEBRASKA

Brandy Wagner
Lindsay Sherer
University of Nebraska–Lincoln
4-H Youth Development

NEVADA – LAS VEGAS

Jean Hoppert
FIRST Nevada

2016-2017 Partners continued

NEVADA – RENO

Dee Frewert
FIRST Nevada

NEW JERSEY – NORTH

Ernest DiCicco, Jr.
Mount Olive Robotics Education Association

NEW MEXICO

Chris Morgan
Sandy Trissell
FIRST LEGO League New Mexico

NEW YORK – FINGER LAKES

Elayne Stewart
Kyle Doyle
University of Rochester

NEW YORK – LONG ISLAND

Rick Ramhap
SBPLI, Inc.

NEW YORK – MID-HUDSON VALLEY

John Houston
Dutchess County Community College

NEW YORK – NEW YORK CITY

Norm Sutaria
Pat Daly
NYC FIRST

NEW YORK – UTICA

Janice Martino
SUNY Institute of Technology

NORTH CAROLINA

Marie Hopper
Julia Wagner
FIRST North Carolina

OHIO

Kelli Dubendorfer
Educational Outreach
Wright Patterson Air Force Base

OKLAHOMA

Scott Taylor
Suzanne Dodson
Oklahoma Science and Engineering
Foundation (OKSEF)

OREGON

Loridee Wetzel
David Perry
Oregon Robotics Tournament
and Outreach Program

PENNSYLVANIA – SOUTHEAST

Joe McCullough
Dan Ueda
University of Pennsylvania

PUERTO RICO

Miray Ramy
Eureka STEM

RHODE ISLAND

Nick Terry
Rhode Island School of the Future

SOUTH CAROLINA

Louis Rubbo
SC FIRST LEGO League and
Robotics Education, Inc.

TEXAS – ALAMO

Andrew Schuetze
Megan Clark
SASTEMIC

TEXAS – CENTRAL

Jess Jankowitsch
FIRST in Texas

2017 FIRST LEGO LEAGUE GLOBAL INNOVATION AWARD

Young Inventors Solving Problems in their Communities



Across the *FIRST* Progression of Programs, team members are encouraged to ask questions, challenge themselves, and follow their own spark of innovation to improve the world around them. Divergent thinking and community outreach are the norm, not the exception. Using robotics competitions as the vehicle, *FIRST* is inspiring the next generation of leaders, builders, and dreamers to solve problems in their communities.

2017 FIRST LEGO League Global Innovation Award

The *FIRST* LEGO League Global Innovation Award is a competition designed to showcase the real-world, innovative solutions that *FIRST* LEGO League teams create as a result of their Project.

In its seventh year, the 2017 *FIRST* LEGO League Global Innovation Award celebrated the inventions *FIRST* LEGO League teams created to improve how humans interact with animals during the ANIMAL ALLIESSM season. The competition asks teams to consider possible barriers to implementation, document the evaluation of their invention, and validate their design with professionals and gives teams a way to build critical skills in these areas.

“The Hydrators” from Oakville, Ontario, Canada, took the top prize – a \$20,000 cash award – with their H₂O Post (Horses Hydrating Outside), an automated water post that monitors the amount of water horses drink. The post and trough monitor water consumption by using chips implanted in the horse’s nasal cavity. The data is collected through a RFID reader and is sent to the horse’s owner through an app.

TEXAS – NORTH

John Shellene
DFW Technology and Education Council

TEXAS – SOUTHWEST

Gabby Gandara
Virgilio Gonzalez
University of Texas at El Paso

UTAH

Kyle Feuz
Dana Dellinger
Weber State University

VIRGINIA/DISTRICT OF COLUMBIA

Nick Swayne
Krystian Jones
James Madison University

WASHINGTON

Susan Martucci
Washington FIRST Robotics

WEST VIRGINIA

Jaime Ford
NASA IV & V Educator Resource Center

WISCONSIN

Lisa Bartig
BadgerBOTS

WYOMING

Cathy Bisiar
Natrona County School District

**2016-2017
FIRST LEGO LEAGUE**

The following key organizations and volunteers in the field organize the FIRST LEGO League program in their respective regions.

GLOBAL PARTNERS

Australia

Luan Heimlich
Macquarie University

Austria

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Belgium

Tamara Derksen
Mark Franken
Stichting Techniekpromotie

Bolivia

Raul Ontiveros
ONTI Foundation

Brazil

Barbara Cambraia Trajano
Danielle Abreu
SESI–Brazilian Social Services of Industry–National Department

Bulgaria

Kostas Vasileiou
EduACT

Canada

ALBERTA
Walter Kowalchuk
Alberta Youth Robotics Association

BRITISH COLUMBIA

Philip Pierce
St. Margaret’s School

NEWFOUNDLAND AND LABRADOR

Clarence Button
O’Donel High School

NOVA SCOTIA

Gary Walsh
Acadia University

ONTARIO

David Ellis
FIRST Robotics Canada

QUÉBEC

Rachid Abiza
FIRST Robotics Québec

SASKATCHEWAN

Daryl Hepting, Ph.D.
University of Regina

Chile

Kirstin Engemann
Fundación SparkTalents

China

Eugene Zhang
Semia Limited

Chinese Taipei

Johnson Jan
K Kingdom Inc.

Colombia

Mónica María Sánchez Colorado
Fundación Global Arte Ciencia y Tecnología

Cyprus

Kostas Vasileiou
EduACT

Czech Republic

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Denmark

Nina Sivertsen
Stian Elstad
FIRST Scandinavia

Dominican Republic

Abraham Dauhaje
Fundación para el Desarrollo de las Ciencias y Tecnología

Egypt

Ayman El Kabbany
Techno Future Egypt

Estonia

Heilo Altin
MTÜ Robotika

Faroe Islands

Nina Sivertsen
Stian Elstad
FIRST Scandinavia

France

Bernard Thiery
Erwan Gallee
FOL de la Nièvre–Centre de Ressources en Robotique Educative et Professionnelle

Germany

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Greece

Kostas Vasileiou
EduACT

Haiti

Odule Augustin
Kinvil Jean
FEDUDEVH

Hong Kong

Eugene Zhang
Semia Limited
The Hong Kong Youth Federation

Hungary

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Iceland

Birgir Urbancic Ásgeirsson
FIRST LEGO League á Íslandi

India

Sudhanshu Sharma
India STEM Foundation

Indonesia

Bambang Rusli
Mikrobot

Ireland

Gareth James
Mandy Workman
The Institution of Engineering and Technology

Israel

Yaarit Levy
Keren Muchnik
FIRST Israel

Italy

Franco Finotti
Stefano Monfalcon
Fondazione Museo Civico di Rovereto

Japan

Hideki Kamoshida
Takahiro Kondo
FIRST Japan

Jordan

Ismail Yasein Hasan
King Hussein Foundation

Latvia

Heilo Altin
MTÜ Robotika

Lebanon

Ghazi Mtaweh
Cedars Cultural School-Education and Technology Center

Lithuania

Kristijonas Vasiliauskas
Robotikos Akademija

Malaysia

KingHui Law
Kevin Wan
Sasbadi Sdn Bhd

Mexico

Bárbara Gómez de Navarro
Explora, Descubre Y Crea, AC

Moldova

Heilo Altin
MTÜ Robotika

Montenegro

Prof. Srdjan Kadic
Young Inventors of Montenegro

The Netherlands

Tamara Derksen
Mark Franken
Stichting Techniekpromotie

New Zealand

Jason Kyle
Kiwi FIRST

Nigeria

Olajide Ademola Ajayi
CODERINA

Norway

Nina Sivertsen
Stian Elstad
FIRST Scandinavia

Pakistan

Rehan Ahmad
Qamar Iqbal
STARFALL (Science and Technology Awareness and Recognition for All)

Palestine

Ismail Yasein Hasan
King Hussein Foundation

Peru

Luis Linares
Wernher Von Braun IEP SA

Philippines

Mylene Abiva
FELTA Multi-Media, Inc.

Poland

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Portugal

Noah Revoy
Ana Raquel Silva
Evoluir21

Qatar

Ismail Yasein Hasan
King Hussein Foundation

Republic of Korea

Professor Kyoung-Mihn Do
FEST (Feeling and Enjoying Science & Technology Organization)

Russia

Aleksei Kornilov
Maxim Petrov
Oleg Deripaska’s Volnoe Delo Foundation

Serbia

Andrej Bergant
Natalija Premuzić
Zavod Super Glavce

Singapore

Hozefa Aziz Singapore Wala
Duck Learning

Slovakia

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Slovenia

Andrej Bergant
Natalija Premuzić
Zavod Super Glavce

South Africa

Johannes de Vries
Tshwane University of Technology

Spain

Ricard Huguet
Montse Bover
Fundación Scientia

Sweden

Nina Sivertsen
Stian Elstad
FIRST Scandinavia

Switzerland

Stefanie Hauffe
Franzi Ronneburger
HANDS on TECHNOLOGY e.V.

Thailand

Nualwon Cha-ume
Pittayut Tangsatjatham
Gammaco (Thailand) Co. Ltd.

Turkey

Fatma Habip
Davut Habip
Bilim Kahramanlari Dernegi

Ukraine

Oksana Stoyetskaya
Prolego Ltd.

United Arab Emirates

Senthil Kugan
ATLAB Trading, LLC

United Kingdom

Gareth James
Mandy Workman
The Institution of Engineering
and Technology

United States

ADVENTIST ROBOTICS LEAGUE
Mel Wade

ALABAMA

Drew Whisenant
Taylor Whisenant
FIRST in Alabama

ALASKA

Rebecca Soza
Juneau Economic Development Council

ARIZONA

Hilary Mitchell
Ira A. Fulton Schools of Engineering
Arizona State University

ARKANSAS

Richard Cassidy
Amber Williamson
Science and Technology Group, Inc.

CALIFORNIA – CENTRAL

Michael Adam
Clovis Unified School District

CALIFORNIA – LOS ANGELES

Tony Ayad
Girl Scouts of Greater Los Angeles

CALIFORNIA – NORTHERN

Mark Edelman
Jill Wilker
Playing @ Learning

CALIFORNIA – SOUTHERN

Lynn Crockett
LEGOLAND®

COLORADO

Courtney Goeltenleuchter
Kevin Kowalczyk
Kevin Popp
Colorado Robotics, Excelling at
Science and Technology Inc.

CONNECTICUT

Mike Gentry
IngenuityNE Inc.

DELAWARE

Eric Cheek, Ph.D.
Delaware State University

FLORIDA – CENTRAL

Michael Schweim
Polk State College

FLORIDA – NORTHEAST

Kathie Carswell
Mark McCombs
Renaissance Jax, Inc.

FLORIDA – NORTHWEST

Beth Hanning
Doolittle Institute

FLORIDA – SOUTH

Gloria Gibson
Stacey Jones
Green Mouse Academy

FLORIDA – WEST COAST

Desh Bagley
Hillsborough Community College

GEORGIA

Jasmine Patel
Jeff Rosen
Kinyatta Trice
Georgia Institute of Technology

HAWAII

Aaron Dengler
Blaine Kashiwaeda
Hawaii FIRST LEGO League

IDAHO

Robin Baumgartner
Timothy Ewers, Ph.D.
Extension 4-H, University of Idaho

ILLINOIS

Tom Kleinschmidt
Diane Michalczuk
INSciTE Illinois

INDIANA

Carol Dostal
College of Engineering, Technology
and Computer Science
Indiana University–Purdue
University, Fort Wayne

IOWA

Camille Sloan-Schroeder
College of Engineering, Iowa
State University

KANSAS – LIBERAL

Nora Wetzberger
Mid America Air Museum

KANSAS CITY REGION

Gretchen Neis
Curators, University of Missouri

KANSAS – SOUTHEAST

Lisa Blair
Greenbush, Southeast Kansas
Education Service Center

KENTUCKY

Beth Koch
Northern Kentucky University

LOUISIANA

Michelle Sanchez
Annette Oertling
FIRST Louisiana-Mississippi, Inc.

MAINE

Tom Bickford
Maine Robotics

MARYLAND

Jamie Gurganus
Anne Spence, Ph.D.
College of Engineering &
Information Technology
University of Maryland Baltimore

MASSACHUSETTS

Colleen Shaver
Worcester Polytechnic Institute

MICHIGAN

Pamela Williamson
FIRST in Michigan

MINNESOTA

Vicki Coaty
Cheryl Moeller
High Tech Kids

MISSISSIPPI

Eddie Melton
Robotics Alliance of Mississippi

MISSOURI – CENTRAL

Lynna Lawson
Bill Pabst
University of Missouri, Columbia

MISSOURI – ST. LOUIS

LeAnn Ore Heumphreus
Kathie Reuter
St. Louis Community College–
Florissant Valley

MONTANA

Allison Banfield
College of Engineering, Montana
State University

NATIONAL SOCIETY OF BLACK

ENGINEERS (NSBE)
Brittany Boyd

NEBRASKA

Brandy Wagner
University of Nebraska–Lincoln
4-H Youth Development

NEVADA – LAS VEGAS

Pam Garfield
Jean Hoppert
FIRST Nevada

NEVADA – RENO

Dee Frewert
FIRST Nevada

NEW HAMPSHIRE

Brian Belley
Kristen Zuege
BAE Systems

NEW JERSEY – NORTH

Ernest DiCicco, Jr.
Mount Olive Robotics
Education Association

NEW JERSEY – SOUTH

Eric Milou
Rowan University

NEW MEXICO

Chris Morgan
Sandy Trissell
Girl Scouts of New Mexico Trails

NEW YORK – FINGER LAKES

Damian Garcia
Elayne Stewart
University of Rochester

NEW YORK – LONG ISLAND

Janet Anderson
Stephanie Stern
SBPLI, Inc.–LI FIRST

NEW YORK – MID-HUDSON VALLEY

Leah Akins
Casimer DeCusatis
John Houston
Hudson Valley FIRST LEGO League

NEW YORK – NEW YORK CITY

Mark Sharfshteyn
Norm Sutaria
Peter Xanthus
NYC FIRST

NEW YORK – POTSDAM

Jessica Carista
James Carroll
Clarkson University

NEW YORK – UTICA

Elizabeth Rossi
Janice Martino
SUNY Polytechnic Institute

NORTH CAROLINA

Kory Bennett, Ph.D.
North Carolina A&T State University

NORTH DAKOTA

Gwen Klawon
University of North Dakota, School
of Engineering & Mines

OHIO

Katie Jewell
Kelli Dubendorfer
Brenda Ronnebaum
Wright Patterson Air Force Base–
Educational Outreach

OKLAHOMA

Scott Taylor
Oklahoma Science and Engineering
Foundation (OKSEF)

OREGON

Bruce Schafer
Loridee Wetzel
Oregon Robotics Tournament
and Outreach Program

PENNSYLVANIA – NORTHWEST

Melanie Ford
Edward Smith
Penn State Erie, The Behrend College

PENNSYLVANIA – SOUTHEAST

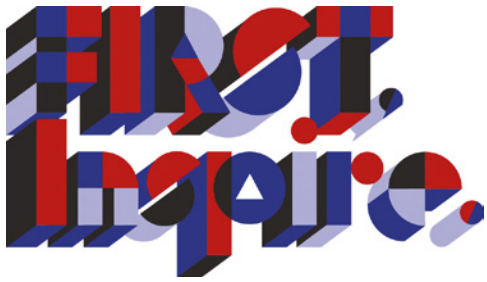
Nate Knauss
Dan Ueda
University of Pennsylvania

PENNSYLVANIA – CENTRAL

Allison Felix
Community Foundation for
the Alleghenies

PENNSYLVANIA – SOUTHWEST

Gordon Walton
BrainSTEM Learning, Inc.



CHAMPION



Jaqui E. Safra & Jean Doumanian

INNOVATOR



MAKER

Larry & Tami Cohen

Morgan Stanley



Karl Sprules

Myron E. Ullman, III



CATALYST

Allen Weinberg, McKinsey and Co.



Booz | Allen | Hamilton



Goldman Family

Walt Havenstein

JENNER & BLOCK

J.P.Morgan

ROYALTY PHARMA



Judy & Josh Weston

HERO

Diana & David Milich
NYU Tandon School
of Engineering
Robert Parkinson

Maria & Ricardo Salinas
Linda Stone
UBS
Nancy & James Utaski

ENTHUSIAST

David Crane
Cherrie Fleisher-Strauss
Kent Hughes

Scott McKay
David K. A. Mordecai
Thompson Coburn LLP

THANK YOU to our Host Committee

Co-Chairs

Bill Ackman
Founder & Chief Executive Officer
Pershing Square Capital Management, L.P.
Jackie Bezos
President & Co-Founder
Bezos Family Foundation

Committee

Virginia Albanese
President & Chief Executive Officer
FedEx Custom Critical
Lawrence Cohen
Partner & Senior Vice President, AB
David Crane & Isabella de la Houssaye
Senior Operating Executive, Pegasus Capital Advisors

Chris Curran
Principal & Chief Technologist, PwC
Michael Dubno
Don Duet
Head of Technology, Goldman Sachs
Jaqui E. Safra & Jean Doumanian
Josh Weston
Honorary Chairman, Automatic Data Processing Inc.

PUERTO RICO

Roberto Gorbea
Miray Ramy
Eureka Enrichment and Learning Center, Inc.

RHODE ISLAND

Rebekah Gendron
Rhode Island School of the Future

SOUTH CAROLINA

Louis Rubbo
SC *FIRST* LEGO League and Robotics Education, Inc.

SOUTH DAKOTA

Amy Engebretson
EmBe

TENNESSEE – EAST

Kris Craven
Paula Suchomski
Bradley Weil
Tennessee Technological University

TENNESSEE – WEST

Tom Banning
Daniel Kohn
Frank Niedzwiedz
University of Memphis and Herff College of Engineering

TEXAS – ALAMO

Megan Clark
Andrew Schuetze
SASTEMIC

TEXAS – CENTRAL

Kristi Cantu
Jesse Jankowitsch
FIRST in Texas

TEXAS – NORTH

Kristi Cantu
Teresa Lenling
Shannon Page
Perot Museum of Nature and Science

TEXAS – SOUTH

Tami Riggs
British International School of Houston

TEXAS – SOUTHWEST

Gabby Gandara
Virgilio Gonzalez
University of Texas at El Paso

UTAH

Jenna Boltz
Utah Valley University

VERMONT

David Feinauer, Ph.D.
Norwich University

VIRGINIA/DISTRICT OF COLUMBIA

Krystian Jones
Nick Swayne
James Madison University

WASHINGTON

Susan Martucci
Erin McCallum
Washington *FIRST* Robotics

WEST VIRGINIA

Todd Ensign
Fairmont State University

WISCONSIN

Lisa Bartig
Ben Senson
BadgerBOTS

WYOMING

Shannon Fischer
Natrona County School District

Yemen

Ismail Yasein Hasan
King Hussein Foundation

2016-2017**FIRST TECH CHALLENGE**

The following key organizations and volunteers in the field organize the *FIRST* Tech Challenge program in their respective regions.

AFFILIATE PARTNERS**Australia**

Luan Heimlich
Michael Heimlich
Macquarie University

Canada

ALBERTA
Philippe Manseau

BRITISH COLUMBIA

Randy Enkin
Society for the Advancement of Young Scientists

China

Eugene Zhang
Semia Limited

Chinese Taipei

Johnson Jan
ESUN Robot Association

Czech Republic

Joe Monks
CEESA School District

Egypt/Lebanon

Ayman El Kabbani
Ghazi A Mtaweh
TechnoFuture Egypt, Education & Technology Center Lebanon

France

Hayate Khennouf
Phelma/Grenoble INP

India

Sudhanshu Sharma
Techtronics Education

Israel

Yaarit Levy
FIRST Israel

Mexico

Bárbara Gómez de Navarro
Explora, Descubre Y Crea, AC

The Netherlands

Lennart de Graaf
Fontys Hogeschool ICT

New Zealand

Jason Kyle
Kiwi *FIRST*

Republic of Korea

Professor Kyoung-Mihn Do
FEST (Feeling and Enjoying Science & Technology Organization)

Romania

Bogdan Enoiu
BV McCann Erickson

Russia

Ekaterina Nikitina
Oleg Deripaska Foundation Volnoe Delo

South Africa

Johannes de Vries
Tshwane University of Technology

United States

ALABAMA
Renee Kozar
Sheryl Darrow
FIRST in Alabama

ALASKA

Brian Holst
Juneau Economic Development Council

ARIZONA

Christine Sapio
Coconino High School

David Thompson

Northern Arizona University

ARKANSAS

Jacquelyn Basinger
Mountain Home High School–
Career Academies

CALIFORNIA – LOS ANGELES

Gigi Johnson
alt-NEXT

CALIFORNIA – NORTHERN CALIFORNIA

Jill Wilker
Mark Edelman
Playing @ Learning

CALIFORNIA – SAN DIEGO

John Brooks
Marion Brooks

COLORADO

Matthew Collier
Kathy Collier
LAUNCH

CONNECTICUT

Evan Barnet

DELAWARE

Eric Cheek
Delaware State University

FLORIDA

Hans Wolf
Tampa Bay Robotics Foundation, Inc.

GEORGIA

Connie Haynes
Georgia *FIRST*

HAWAII

Aaron Dengler
Punahou School

IDAHO

Tim Ewers
University of Idaho Extension 4-H

ILLINOIS

Michael Seedman

INDIANA

Darrin Wilcoxson
Crawfordsville High School

IOWA

Rebecca Whitaker
University of Iowa

KENTUCKY

James Klauber
Owensboro Community and Technical College

LOUISIANA

Annette Oertling
FIRST Louisiana-Mississippi

MARYLAND

Bill Duncan
STEMaction, Inc.

MASSACHUSETTS

Loretta Bessette
MIT Lincoln Laboratory

MICHIGAN HIGH SCHOOL

Betsy Lamb
Ted Lorts
Cranbrook Schools

MICHIGAN MIDDLE SCHOOL

Francois Castaing
Gail Alpert
FIRST in Michigan

MINNESOTA

Cheryl Moeller
High Tech Kids

MISSISSIPPI

John O'Haver
University of Mississippi

MISSOURI

Susie Mathieu

MONTANA

Ed Huth
Oracle

NEBRASKA

Bradley Barker
Nebraska 4-H Youth Development

NEVADA

Jean Hoppert
FIRST Nevada

NEW HAMPSHIRE

Bruce Linton
ingenuityNE

NEW JERSEY

Joel Bloom
New Jersey Institute of Technology

NEW YORK CITY

Pat Daly
NYC *FIRST*

NEW YORK – EXCELSIOR

Janice Martino
SUNY Polytechnic Institute

NEW YORK – EMPIRE

Richard Kline
Pace University

NEW YORK – LONG ISLAND

Yacov Shamash
School Business Partnerships
of Long Island, Inc.

NORTH CAROLINA

Robert Pompey Jr.
North Carolina A&T State University

NORTH DAKOTA

Paul Keidel
Bismarck Career Academy

OHIO

Linda Neenan
iSPACE, Inc.

OKLAHOMA

Brad Fitzgerald
Southwest Oklahoma State University

OREGON

Bruce Schafer
Oregon Robotics Tournament and
Outreach Program (ORTOP)

PENNSYLVANIA

Thomas Zawislak
Pennsylvania *FIRST* Robotics

RHODE ISLAND

Erin Flynn
New England Institute of Technology

SOUTH CAROLINA

William Pedersen
South Carolina Robotics
Education Foundation

TEXAS – DALLAS/FORT WORTH

Dr. Carter Tiernan
College of Engineering
University of Texas at Arlington

TEXAS – LUBBOCK

Richard Gale
Texas Tech University

TEXAS – PASADENA/HOUSTON

Sharon Sledge
San Jacinto College

TEXAS – SAN ANTONIO

Andrew Schuetze
SASTEMIC

UTAH

David Ferro
Weber State University

VERMONT

Douglas Dickey
Kristin Winer
University of Vermont

VIRGINIA

Scott McKay
Virginia *FIRST*

WASHINGTON

Eric Stokely
Washington *FIRST* Robotics

WEST VIRGINIA

Donald Trisel
Fairmont State University

WISCONSIN

Michael Krauski
University of Wisconsin Milwaukee

WYOMING

Bryan Honken
Natrona County School District

PROGRAM MANAGERS

Canada

BRITISH COLUMBIA
Christine Nicholls

China

Andrew Bannish
Flora Li
Xiangpeng Zhang
Sobrina Si
Semia Limited

Chinese Taipei

Rene Cheng
ESUN Robot Association

India

Pooja Sharma
Techtronics Education

Israel

Or Daniel
FIRST Israel

Republic of Korea

Eric Lee
FEST (Feeling and Enjoying Science
& Technology Organization)

Romania

Andrei Toniuc

Russia

Maxim Petrov
Oleg Deripaska Foundation Volnoe Delo

United States

ALASKA
Rebecca Soza
David Patterson

CALIFORNIA – LOS ANGELES

Theresa Klemme

GEORGIA

Robert May

HAWAI'I

Blake Uramoto
Jenny Uramoto

IDAHO

Robin Baumgartner

ILLINOIS

Sue Kunzeman
Jonathan Weiland

INDIANA

Lori Hall

LOUISIANA

Clark Rowley

MICHIGAN MIDDLE SCHOOL

Tammy Damrath

MINNESOTA

Vicki Coaty

MISSISSIPPI

Mannie Lowe

MISSOURI

Tom McGovern

MONTANA

Allison Banfield
Montana State University

NEW JERSEY

Vince Frascella
Patricia Frascella

NEW HAMPSHIRE

Frank Grossman

NEW YORK CITY

Norm Sutaria

NORTH CAROLINA

Dr. Kory Bennett

OREGON

Cathy Swider
Oregon Robotics Tournament and
Outreach Program (ORTOP)

PENNSYLVANIA

Dave Hackett

TEXAS – DALLAS/FORT WORTH

Dave Davis
College of Engineering
University of Texas at Arlington

TEXAS – LUBBOCK

Alan Barhorst
Dina Barhorst
Texas Tech University

TEXAS – SAN ANTONIO

Megan Clark
SASTEMIC

UTAH

Dana Dellinger
Weber State University

VIRGINIA

Maureen Carley

WASHINGTON

Gary Major
Adrienne Rime

WISCONSIN

Julianne Pickering
University of Wisconsin Milwaukee

WEST VIRGINIA

Todd Ensign
West Virginia Robotics Alliance

WYOMING

Shannon Fischer
Natrona County School District

**2016-2017 FIRST ROBOTICS
COMPETITION**

The following organizations partner
with *FIRST* to implement the *FIRST*
Robotics Competition program in a
specified region.

Australia

Macquarie University

Canada

ONTARIO
FIRST Robotics Canada

ALBERTA

FIRST Robotics Society (FRS)

China

China Urban Youth Robot
Alliance (CUYRA)

Israel

FIRST Israel

Mexico

Instituto Tecnológico y de Estudios
Superiores de Monterrey

United States

ARIZONA

AZFirst

ALABAMA

FIRST in Alabama

ARKANSAS

Arkansas *FIRST*

COLORADO

Colorado *FIRST*

FLORIDA

Florida *FIRST* Robotics Education
Foundation, Inc. (FFREF)

GEORGIA

Georgia *FIRST* Robotics Inc.

HAWAI'I

Friends of Hawaii Robotics

IDAHO

Rocky Mountain Robotics

ILLINOIS

FIRST Illinois Robotics

INDIANA

Indiana *FIRST*

LOUISIANA

FIRST Louisiana-Mississippi

MICHIGAN

FIRST in Michigan (FIM)

MID-ATLANTIC REGION

FIRST Mid-Atlantic

MISSOURI – KANSAS CITY

KC STEM Alliance

MISSOURI – ST. LOUIS

Saint Louis Science Center

NEVADA

FIRST Nevada

NEW ENGLAND

ingenuityNE

NEW YORK CITY

NYC *FIRST*

NEW YORK – LONG ISLAND

School-Business Partnerships of
Long Island, Inc. (SBPLI)

NORTH CAROLINA

FIRST North Carolina

OHIO

Ohio Aerospace Institute

OREGON

Oregon Robotics Tournament &
Outreach Program (ORTOP)

SOUTH CAROLINA

Palmetto Partners for Science
and Technology

TEXAS

FIRST in Texas

UTAH

FIRST Utah

VIRGINIA, MARYLAND,

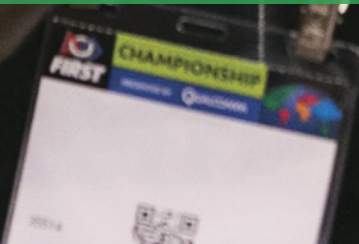
WASHINGTON DC
FIRST Chesapeake

WASHINGTON

FIRST Washington



Financials



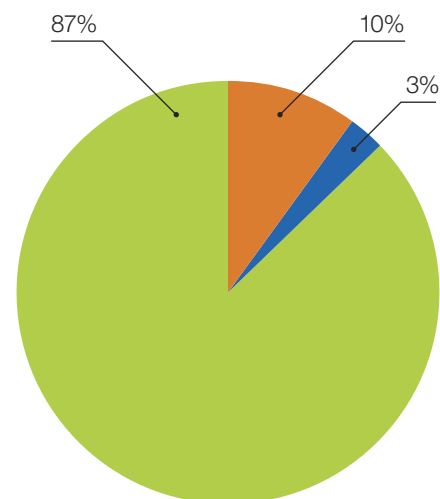
Financials

Our programs' participation growth and mission successes continued once again in fiscal year 2017. We continue to have relatively balanced growth in both operating revenues and expenses, including additional investments in our Youth Protection Program, Information Technology, Program Evaluations, Diversity & Inclusion Program, and our Education Initiative. Contributions remained strong, as many individuals, small businesses, corporations – including over 200 of the *Fortune* 500 companies – and foundations maintained or increased their support, while many new sponsors joined *FIRST*. This contributed support provided very meaningful experiences to approximately a half-million youth engaged worldwide in the *FIRST* Progression of Programs.

As noted in the graph, and in keeping with long-time practices, *FIRST* continues to apply the maximum percentage of funds possible to directly benefit *FIRST* participants. Included within the modest G&A expenses are several significant investments in infrastructure enhancements, including those noted above.



FIRST achieved its twelfth consecutive four-star rating from Charity Navigator, certifying our continued commitment to accountability, transparency, and sound fiscal management. This consecutive rating places *FIRST* in the top 1 percent of the U.S. charities annually evaluated by Charity Navigator.



- Team services & growth of programs
- G&A expenses
- Fundraising costs

STATEMENTS OF ACTIVITIES	JUNE 30, 2017	JUNE 30, 2016
Revenues and other support:		
Program registration fees	\$ 28,433,710	\$ 26,625,176
Contributions and grants	14,720,452	15,760,543
Other income, net of expenses of \$102,065 in 2017 and \$98,515 in 2016	1,313,487	934,573
Special event income, net of expenses of \$395,911 in 2017 and \$434,286 in 2016	529,054	483,854
Net assets released from restrictions	27,339,944	22,253,335
Total revenues (losses) and other support	72,336,647	66,057,481
Expenses:		
<i>FIRST</i> Robotics Competition	43,886,704	38,649,008
<i>FIRST</i> LEGO League and <i>FIRST</i> LEGO League Jr.	9,056,033	7,097,363
<i>FIRST</i> Tech Challenge	8,339,600	8,590,482
Net cost of building space occupied by unrelated not-for-profit organizations	268,304	257,648
General, administrative and supporting services, and fundraising	8,849,470	8,584,578
Operation of <i>FIRST</i> facilities	417,706	416,527
Depreciation	718,742	604,220
Total expenses	71,536,559	64,199,826
<i>Operating surplus</i>	<u>800,088</u>	<u>1,857,655</u>
STATEMENTS OF FINANCIAL POSITION	JUNE 30, 2017	JUNE 30, 2016
Assets:		
Cash and cash equivalents*	16,612,801	17,029,618
Short-term investments*	10,750,000	11,000,000
Pledges, receivables, program supply inventory, and other assets	15,572,532	12,684,582
Net property, plant, and equipment	5,294,793	5,060,032
Total assets, end of year	48,230,126	45,774,232
Liabilities and net assets:		
Total liabilities, end of year	4,391,581	3,095,896
Net assets:		
Unrestricted	25,434,899	24,634,811
Temporarily restricted	18,403,646	18,043,525
Total net assets, end of year	43,838,545	42,678,336
Total liabilities and net assets, end of year	\$ 48,230,126	\$ 45,774,232

For each of the two fiscal years summarized above, *FIRST* received unmodified (unqualified) opinions from its independent auditor, BerryDunn.

*Note: The cash and short-term investments are comprised of both unrestricted funds and donor temporarily restricted funds. The total liquid assets balance available to *FIRST*, for operating purposes, at June 30, 2017, is equivalent to approximately four months of *FIRST* operating expenses.

The financial information presented here is condensed and does not include the value of all donated services and materials. Audited Financial Statements (AFS) are readily available on the website at www.firstinspires.org under "About/Annual Report." Certain amounts reported for 2016 have been restated. For details, please refer to the accompanying notes which are an integral part of the AFS, at the above web address.

Leadership

BOARD OF DIRECTORS

Robert K. Ortberg – Co-Chair

Chairman, President & Chief Executive Officer
Rockwell Collins

Robert M. Tuttle – Co-Chair

General Partner
1848 Associates

Dr. Laurie Leshin – Vice Chair

President
Worcester Polytechnic Institute

Dr. Vincent Wilczynski – Treasurer

Deputy Dean, School of Engineering & Applied Science
Yale University

Dr. Donald E. Bossi – Secretary

President
FIRST®

Dean Kamen – Founder

President
DEKA Research & Development Corporation

John E. Abele

Founding Chairman, Retired
Boston Scientific Corporation

Virginia Addicott

President & Chief Executive Officer
FedEx Custom Critical, Inc.

Dr. Robin N. Coger

Dean, College of Engineering
North Carolina A&T State University

Walter P. Havenstein

Chief Executive Officer, Retired
Science Applications International Corporation (SAIC)

Karen Horting

Executive Director and CEO
Society of Women Engineers

Dr. Paul E. Jacobs

Chairman & Chief Executive Officer
XCOM

Lonnie Johnson

President and Founder
Johnson Research and Development Corporation

John H. Lynch

Former Governor
State of New Hampshire

Scott McKay

Former Executive Vice President of Business & Product Strategy
Genworth Financial

Dennis A. Muilenburg

Chairman, President & Chief Executive Officer
The Boeing Company

Dr. David Siegel

Co-Chairman
Two Sigma Investments

Myron (Mike) E. Ullman, III

Chairman
Starbucks;
Chairman & CEO, Retired
JCPenney

HONORARY DIRECTORS

Paul A. Allaire

FIRST Chairman: 1995-2000
Chairman & Chief Executive Officer, Retired
Xerox Corporation

J.T. Battenberg III

Chairman & Chief Executive Officer, Retired
Delphi Corporation

François J. Castaing

Executive Vice President, Retired
Chrysler Corporation

L. John Doerr III

Chairman
Kleiner Perkins Caufield & Byers

Gary L. Tooker

Chairman of the Board, Retired
Motorola, Inc.

James R. Utaski

FIRST Chairman: 2000-2002
Corporate Mergers & Acquisitions Officer, Retired
Johnson & Johnson

SENIOR ADVISORS

Dr. Shirley Ann Jackson

President
Rensselaer Polytechnic Institute

Kjeld Kirk Kristiansen

Deputy Chairman of the Board
LEGO Foundation & KIRKBI A/S

Dr. William P. Murphy, Jr.

Founder
Cordis Corporation

Steve Sanghi

Chairman of the Board, President, and Chief Executive Officer
Microchip Technology, Inc.

The Honorable

Jeanne Shaheen

United States Senator
New Hampshire

Josh S. Weston

Honorary Chairman
Automatic Data Processing, Inc.

EXECUTIVE ADVISORY BOARD

Dr. Woodie Flowers – Co-Chair & Distinguished Advisor

Pappalardo Professor Emeritus of Mechanical Engineering
Massachusetts Institute of Technology

Kevin Ross – Co-Chair

Founder
Washington FIRST Robotics

Ray Almgren

Chairman
FIRST in Texas

Gail Alpert

President
FIRST in Michigan

Mark Breadner

President
FIRST Robotics Canada

Sujeet Chand

Chief Technology Officer & Senior Vice President
Rockwell Automation, Inc.

Cosema (Connie) Crawford, P.E.

Senior Vice President
The Louis Berger Group, Inc.

Michael Dubno

Head of Global Markets & Research Technology, Retired
Bank of America Merrill Lynch

Greg Hale

Vice President & Chief Safety Officer
Walt Disney Parks & Resorts

Erik Halleus

President & Chief Executive Officer
EuroScandia Enterprises

Luan Heimlich

Manager, Technology-based Outreach, Dept. of Engineering
Macquarie University

James E. Heppelmann

President & Chief Executive Officer
PTC

Marc Hodosh

Co-Creator
TEDMED

Kent H. Hughes

Public Policy Scholar
Woodrow Wilson International Center for Scholars

Esben Stærk Jørgensen

President
LEGO® Education

David Lavery

Program Executive for Solar System Exploration
NASA

Paul Lazarus

President
White Dwarf Productions

Susie Mathieu

Partner
Spirit Hockey, LLC

Ceci Neumann

Independent Law Practice
Professional

Nancy Quan

Chief Technical Officer, North America
The Coca-Cola Company

Heidi Sipe

Superintendent
Umatilla Public Schools

Robert Sobolewski

President & Chairman
ingenuityNE

Dave Wilson

Vice President of Product Marketing, Academic
National Instruments

LEADERSHIP TEAM

Donald E. Bossi

President
FIRST

Terry Durkin

Vice President, Finance
FIRST

Erica Fessia

Vice President, Field Operations
FIRST

Mark Giordono

Vice President, Development
FIRST

Mark Greenlaw

Vice President, Strategy and Impact
FIRST

Listing current as of June 30, 2018

Vision

“To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders.”

— Dean Kamen, Founder



Impact

BUILDING COMMUNITY

FIRST participation is proven to encourage students to pursue education and careers in STEM-related fields, inspire them to become leaders and innovators, and enhance their 21st century work-life skills.



Mission

To inspire young people to be science and technology leaders and innovators, by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

200 Bedford Street ■ Manchester, NH 03101 ■ 800.871.8326

www.firstinspires.org

FOR INSPIRATION & RECOGNITION OF SCIENCE & TECHNOLOGY

