







# TABLE OF CONTENTS

Greetings from FIRST® City

Season Highlights Start

5 Leadership Letter Introducing Larry Cohen, FIRST President

FIRST Longitudinal Impact Study

8

Progression of Programs

10

FIRST Equity, Diversity & Inclusion

13

FIRST Community Stories

16

FIRST® RISE™ powered by Star Wars: Force for Change: A Season in Numbers

18

FIRST® LEGO® League

20

FIRST® Tech Challenge

**22**FIRST® Robotics Competition

24

Woodie Flowers' Legacy

26

FIRST, Inspire Gala

Sponsors and Contributors

36 Mission Support Sponsors

37

Gala Sponsors

38

FIRST Scholarship Program

Program Delivery Partners

40

Volunteers of the Year

44 Financials

45

Leadership



This season of *FIRST*, a global community of young people and forward-looking adults came together to build *FIRST* City, a place where we celebrate our differences and embrace innovative concepts and technology to **strengthen our future cities**. In our thriving culture, collaboration and collective wisdom **elevate new ideas** and **foster growth**.

OUR COMMUNITY IS BRIMMING WITH INSPIRATION, CREATIVITY, AND - MOST IMPORTANTLY - HOPE.

Through evidence-based robotics programs designed to **ignite young minds** and the incredible support of mentors, educators, volunteers, sponsors, donors, and alumni, we're helping young people **realize their power** to find a sense of belonging, reach new heights, and **build a better future**.

TOGETHER, WE RISE.

For the 2019-2020 FIRST® season, FIRST teamed up with Lucasfilm and parent company Disney for FIRST RISE® powered by Star Wars: Force for Change, setting out to inspire the next generation of heroes and innovators. Together with all our sponsors, volunteers, partners, and supporters, we met that goal. Here are some key moments from the season.

# amazon future engineer

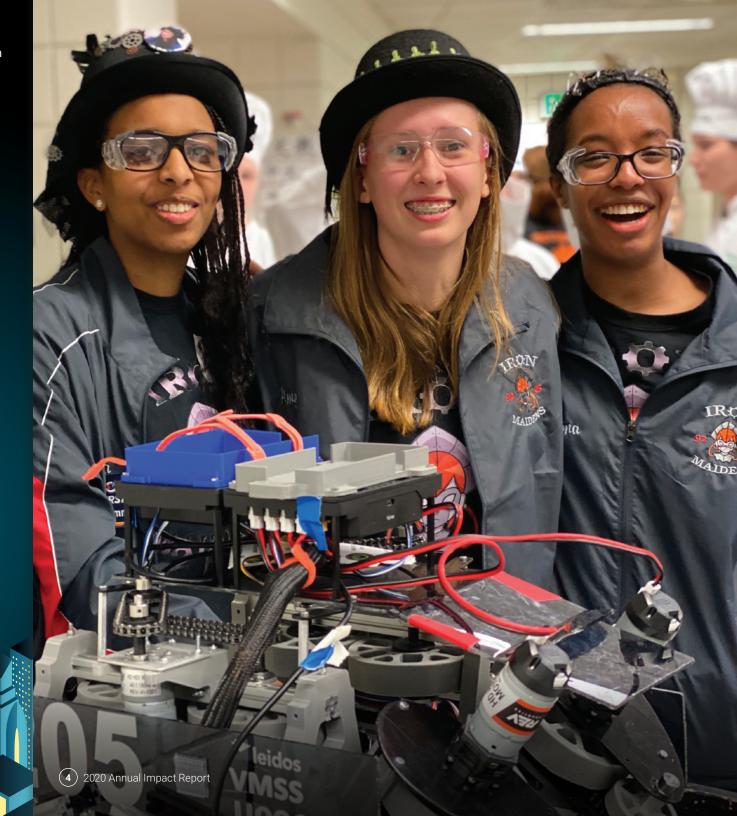
# AUGUST 1, 2019

Amazon partners with FIRST on Amazon Future Engineer Robotics Grants to bring FIRST programs and professional development to schools, reaching thousands of students from underrepresented and underserved communities across the U.S.



#### AUGUST 7, 2019

FIRST introduces new, accessible <u>Class Pack</u> editions, which provide tools to educators to implement FIRST programs flexibly with 30+ students in classrooms or structured after-school programs.



# **LEADERSHIP** LETTER

FIRST was created over 30 years ago to inspire young people to become science and technology innovators and leaders, ready to solve the world's greatest challenges. We've always known FIRST isn't about the robots. That's especially true this season.

Our 2019-2020 season began with a big theme. FIRST RISE powered by Star Wars: Force for Change set out to empower young people to help the places they call home reach new heights and build stronger, more sustainable communities.

After our global competition season ended early, in March, due to the COVID-19 pandemic, our students and alumni used their FIRST-built skills for good. They applied their FIRST learnings to 3-D print face shields for front-line workers, build grocerydelivery robots for at-risk populations, and much more (see page 13).

Our partners stepped up in the face of challenge, too: Many sponsors and donors were able to shift to unrestricted funding to support the FIRST mission, and we are so grateful. Thank you to all our sponsors, donors, mentors, volunteers, educators, alumni, parents, and supporters who help drive our mission forward.

The pandemic reinforces that inspiring science and technology innovators and leaders is critical, and our community's impact shows the FIRST mission is working: Even when teams aren't competing, they're still learning, growing, and innovating together.

There's so much to be proud of this season: We impacted more young people with our programs than ever before. Youth participation worldwide grew 18%, reaching more than 679,000 students in approximately 110 countries.

We believe the opportunities offered by FIRST belong in every school and community, accessible to every student. As part of our strategic objectives, we are investing in removing barriers to entry and ensuring greater, more equitable access to FIRST (see page 10).

In the robotics and STEM education landscape, FIRST leads in the development of critical life skills and creating pathways for the future. To expand the range of youth we reach, we launched flexible new implementation options for PreK-12 learning spaces in our Class Pack program, including a new division of FIRST® LEGO® League designed to introduce the fundamentals of STEM to children ages 4-6 (see page 8).

We invest in rigorous impact reporting. The latest update to our unrivaled longitudinal impact study continues to show positive impacts on STEM-related interests six years after students enter our programs - impacts that are evident across all major population groups and persist into college (see page 6).

To ensure a sustainable community, we continue to engage and support FIRST alumni, including with the FIRST Scholarship Program (see page 38). Funded by generous donors, we're creating a new grant for graduating FIRST students: The Woodie Flowers Memorial Grant is named in memory of the late FIRST Distinguished Advisor and educator Dr. Woodie Flowers (see page 24).

Our priority, as always, is the safety and wellness of the FIRST community. As an organization that inspires young people to solve problems and innovate, we are doing the same, developing remote programming options to ensure we are fulfilling our mission and enabling our community to stay engaged with FIRST programs in the challenging years ahead – and long after.

After seeing our community respond to the challenges of the global pandemic, we're even more confident that, together, we are building a better world filled with innovation, inspiration, inclusion, creativity, and promise for a stronger future. We hope you'll join us as we move forward - and up. Together, we RISE.

Sincerely,

Larry Cohen, President, FIRST Kelly Ortberg, Co-Chair, FIRST Board of Directors Dean Kamen, Founder, FIRST Bob Tuttle, Co-Chair, FIRST Board of Directors



# INTRODUCING LARRY COHEN, FIRST PRESIDENT

Larry Cohen joined FIRST HQ in late 2019 after 35 years in various leadership roles driving business transformation, technology innovation, and talent development. He was most recently a Partner and Head of Operations and Technology at AllianceBernstein (AB), a global investment management and research firm. Highly engaged in AB's corporate responsibility, diversity, and workforce development efforts, he established a partnership with FIRST to sponsor and mentor high school robotics teams and a partnership with Year Up to provide training and career opportunities to young adults, leading to AB's recognition as an Outstanding Employer by the New York City Employment and Training Coalition.

Larry's long history of advancing global causes and giving back to his community also includes:

- Nearly a decade of service on the Board of Directors and Executive Advisory Board for NYC FIRST, New York City's Program Delivery Partner for all FIRST programs.
- Bridge Builder and Past Chair of the Board of Directors for Bridges to Prosperity.
- Mentor at Columbia University for the Master's Program in Technology Management.

#### AUGUST 15, 2019

FIRST and LEGO® Education announced
FIRST LEGO League Discover for PreK-1, as the
BOOMTOWN BUILD™ and CITY SHAPER™ Challenges
kick off to inspire children to build cities of the future.

John Deere joins as a FIRST LEGO League Global Sponsor.



#### SEPTEMBER 1, 2019

The 2020 FIRST Scholarship Program launches to make available over 3,000 scholarship opportunities to FIRST alumni from 200 FIRST Scholarship Providers.

#### SEPTEMBER 7, 2019

Qualcomm hosts FIRST Tech Challenge teams for a livestreamed kickoff event at their headquarters in San Diego, California, for SKYSTONE™ presented by Qualcomm.



# **OUR RISING IMPACT**

Evidence from the ongoing *FIRST* Longitudinal Study, conducted via a multi-year partnership with Brandeis University, demonstrates that *FIRST* is meeting our mission and goals to increase the number of young people interested in STEM – and *FIRST* alumni's interest extends beyond their participation in the program to their educational and career choices.

At the end of six years of rigorous data collection (May 2020), there is strong evidence that *FIRST* participation leads to long-term impact, including sustained attitudes and interest in STEM and persistence in STEM pathways into college and related careers. Both male and female *FIRST* alumni are declaring majors in STEM at greater rates than the study's comparison group. Young women in *FIRST* show the largest gains in STEM attitudes and persistence – significant for a group traditionally underrepresented in STEM fields like computer science and engineering.

# FIRST PREPARES STUDENTS FOR A STEM FUTURE

# Sustained attitudes and interest in STEM

Positive impacts on STEM-related attitudes and interests are evident six years after entering a *FIRST* program. Those impacts are consistent regardless of race, gender, income, or community type and persist into college.

FIRST students are significantly more likely to show gains in STEM outcomes than comparison students:

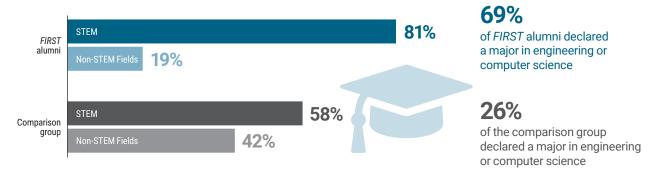
Interest	2.4x
Career interest	2.1x
Identity	2.0x
Activity	1.8x
Knowledge	1.7x



# Persistence in STEM in college

FIRST alumni are significantly more likely to pursue college pathways into computer science and engineering than comparison students, including indicating high interest in, taking courses in, and declaring a major in those fields.

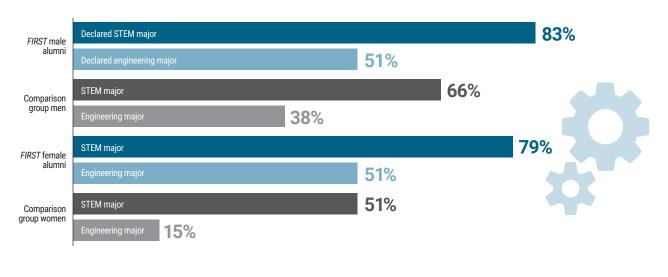
Among the FIRST alumni in the study who had declared a major by the end of year 3 in college, most had chosen a STEM field, and the majority selected engineering or computer science:



# Sustained STEM career paths for female FIRST alumni

Female FIRST alumni continue to show significant sustained impacts related to STEM interest and career pathways. In most cases, those gains for female FIRST alumni were significantly larger than those for male FIRST alumni.

Both male and female FIRST alumni declare majors in STEM at greater rates than their comparison groups. By year 3 in college, female FIRST alumni declared engineering majors at the same rate as male alumni and higher rates than comparison group men and women:



View more information about the study at www.firstinspires.org/impact.

"Many programs don't have the foresight to collect data on the long-term impacts of their activities. FIRST did... This unique longitudinal data set generates critical insights not only for FIRST, but provides valuable data on the effectiveness of after-school STEM programs for the larger field of after-school programming. The FIRST Longitudinal Study is now providing one-of-a-kind data on the impacts of FIRST participation through college, including impacts on course-taking, college majors, and eventually career decisions. FIRST's investment in rigorous data collection and analysis represents an important contribution to the field and reflects its commitment to tracking the impact of its programs and to using data to strengthen and grow its programs."

- Tatjana Meschede, Ph.D., Lead Evaluator, FIRST Longitudinal Study The Brandeis Center for Youth in Communities (CYC), The Heller School for Social Policy and Management



#### SEPTEMBER 26, 2019

New digital video series <u>Galactic Builders</u> **powered by** *Star Wars: Force for Change* premieres on <u>StarWarsKids.com</u>, following *FIRST* teams as they meet with designers and engineers and explore how STEM is used behind the scenes. The series garners more than 1 million views.

# OCTOBER 9, 2019

Thanks to advocacy from the FIRST community, the U.S. Christa McAuliffe Commemorative Coin Act becomes law. The U.S. Treasury will mint coins honoring the teacher and astronaut and designating additional funds to FIRST.





# NOVEMBER 7, 2019

Journalist Soledad O'Brien and FIRST alum Tia Singh are honored at the fifth annual FIRST, Inspire Gala in New York City.



# PROGRESSION OF **PROGRAMS**

FIRST combines the rigor of STEM learning with the fun and excitement of traditional sports and the inspiration that comes from community through a progression of programs that have a proven impact on learning, interest, and skill-building inside and outside of the classroom.

# FIRST® LEGO® League Divisions



ages 4-6

grades PreK-1

### FIRST LEGO LEAGUE DISCOVER

This playful introductory STEM program ignites children's natural curiosity and builds their habits of learning with hands-on activities in the classroom and at home using LEGO® DUPLO® bricks.



AGES 6-10 GRADES

2-4

FIRST LEGO LEAGUE EXPLORE

Teams of students focus on the fundamentals of engineering as they explore real-world problems, learn to design and code, and create unique solutions made with LEGO bricks and powered by LEGO® Education WeDo 2.0.



ages 9-16\*

GRADES 4-8

#### FIRST LEGO LEAGUE CHALLENGE

Teams of students engage in research, problem solving, coding, and engineering – building and programming a LEGO® Education SPIKE $^{\text{TM}}$  Prime or LEGO® MINDSTORMS® robot that navigates the missions of a robot game. They also participate in the Innovation Project to identify and solve a relevant real-world problem.

\*Varies by country



# Young Innovators Use Skills and **Imagination to Solve Problems** as a Team

#### THE CHALLENGE

Through a guided, global robotics program, students are introduced to STEM learning and exploration at an early age. Children can begin with Discover (ages 4-6) and progress through Explore (ages 6-10) and Challenge (ages 9-16\*), or join at any division based on their age or grade level.

#### THE JOURNEY

Young children are introduced to STEM concepts and develop habits of learning through engaging, fun challenges and competitions using LEGO Education materials.

#### THE OUTCOME

Students gain real-world problem-solving experiences that inspire them to experiment and grow their critical thinking, coding, and design skills while building confidence, growing their knowledge, and developing habits of learning.

\*Ages vary by division and country



# It's Way More Than **Building Robots**

#### THE CHALLENGE

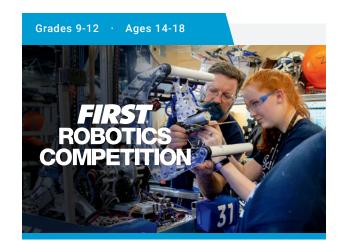
Teams of students design, build, code, and operate Android-smartphone-controlled robots to compete head-to-head in an alliance format. Students are encouraged to create team brands and be an ambassador for FIRST and STEM in their communities.

#### THE JOURNEY

Teams compete at local and regional events, qualifying up to the FIRST Championship. They earn awards based on their teamwork, creativity, innovation, and the engineering design process.

# THE OUTCOME

While developing their STEM skills and mastering engineering principles, students learn the value of persistence, innovation, teamwork, and the engineering design process. High school students are eligible to apply for more than \$80 million in scholarships from colleges, universities, and technical programs.



# **An Exciting Sport Built Around the World of STEM**

#### THE CHALLENGE

Under strict rules, with limited time and resources, high school teams use sophisticated technology to build and program industrial-size robots for a challenging field game. Each team develops a brand, raises funds to meet its goals, and works to promote STEM in the local community.

#### **THE JOURNEY**

At district and regional events, cheering crowds root for qualifying teams as students compete with their robots for prestigious awards and a coveted spot at the FIRST Championship.

# THE OUTCOME

As students learn real-world engineering concepts. they build their confidence and workforce skills and connect with professional team mentors and sponsors who can help them succeed. Plus, they can apply for more than \$80 million in college, university, and technical program scholarships.

#### NOVEMBER 21, 2019

Nine underserved communities receive FIRST STEM Equity Community Innovation Grants to address inequities in access to STEM education, reaching more than 3,000 youth with FIRST programs.



#### DECEMBER 7, 2019

Newly appointed FIRST President Larry Cohen attends the New Hampshire FIRST LEGO League State Championship, his inaugural event as president.



#### DECEMBER 9, 2019

FIRST hosts a global celebration of life and remembrance for Dr. Woodie Flowers (1943-2019), EAB Chair Emeritus & Distinguished Advisor (see page 24).

# **JANUARY 4, 2020**

With help from Star Wars cast and droids, FIRST unveils the 2020 FIRST Robotics Competition season game, INFINITE RECHARGE, in a live global





# WE RISE TO REACH ALL STUDENTS

WE BELIEVE THE OPPORTUNITIES OFFERED BY FIRST BELONG IN EVERY SCHOOL AND COMMUNITY, ACCESSIBLE TO EVERY STUDENT.

For several years, our organization has made equity, diversity, and inclusion (EDI) a strategic priority. Our goal is to serve a population of students that represents the demographic make-up of the communities we serve, and, in addition, to be deliberate and strategic in reaching communities we are not currently serving.

Supported by generous FIRST sponsors and donors, our strategy is focused on removing barriers to access and participation while

increasing opportunities so that any student, anywhere can participate. That includes increasing our capacity to focus on EDI, creating training and resources to support diverse, inclusive programs and teams, and investing in community-based partnerships that help us better reach underserved communities.

We're also investing in reaching more students through schools by increasing our ability to empower educators through curriculum options. professional development, flexible classroom bundles, and other support.

Through these strategies, we are RISING to meet the needs of more students with our programs.







# COMMUNITY INNOVATION THROUGH STEM EQUITY GRANTS

FIRST launched its **STEM Equity Community Innovation Grants** program in 2016 to provide diverse students and disadvantaged communities with hands-on learning opportunities and support inclusion strategies through \$5,000-\$50,000 grants. During the FIRST RISE season, grant recipients reached more than 3,000 youth participants with FIRST programs; 93% were economically disadvantaged, 45% were girls, and 31% were Black.

One grant went to the School District of Palm Beach County in Florida to increase access to FIRST LEGO League Explore in Title I schools through on-going training and a rotation of sessions that allowed for resource sharing among four School Packs. Through a collaboration with local FIRST Program Delivery Partner Green Mouse Academy, the

district's K-12 STEM Department, and additional community partners, over 65 classroom and after-school groups participated, engaging 1,462 students – three times the grant goal. "The shared resource/rotation model demonstrated an affordable, scalable operating model," said Green Mouse Academy's Shane Vander Kooi.

While working creatively, Palm Beach County students practiced taking turns in various roles, communicating with teammates, and working towards a common goal. "Students had no idea they were learning so many 21st century skills while building robots and working together. They were learning through play and enjoying every minute," said one site coordinator

# BUILDING CAPACITY WITH THE AMERICORPS VISTA PROGRAM

FIRST partners with the **AmeriCorps VISTA Program** to recruit members to work in low-income communities in the United States, with a focus on building program capacity to serve a more diverse population. Since 2013, FIRST VISTA members have recruited over 25.000 volunteers and participants, trained nearly 30,000 supporters, and secured more than \$4 million in cash and in-kind donations.

FIRST hosted VISTA members at 22 sites during the FIRST RISE season, including four members in Puerto Rico. Dr. Maria del Pilar Angulo, Nimia Ramos Beauchamp, Heleen Bennett, and Kathleen McTique supported FIRST locally in building more effective and sustainable practices

for outreach, growth, and local engagement. With a range of expertise, they helped build relationships with local schools, add local sponsors, translate materials, and apply for grants. For example, in her first month of service, Kathleen engaged leaders at Becton Dickinson to fund FIRST LEGO League in a public school near a company plant. That school now has the program running in the entire fifth grade.

With the VISTA members' support, FIRST in Puerto Rico reached 25% more students this season. "We are still a small region, but with this powerhouse team, we know that is going to change fast," said Program Delivery Partner Miray Ramy.

# RECRUITING TEAM MENTORS THROUGH COMMUNITY PARTNERSHIPS

Collaboration with community-based youth-serving organizations is critical to successfully reach underserved youth with FIRST programs. FIRST mentors and coaches who understand the students they serve and have access to resources for the team are better positioned to build strong teams. In 2019, FIRST joined forces with nonprofit 100 Black Men of America Inc., recognized as the top African American-led mentoring organization in the U.S., to provide \$5,000 grants to four chapter locations to establish and support their FIRST Tech Challenge teams.

In Chicago, the "Brogrammers" are a team of seventh-totenth grade students who were primarily new to robotics and programming, mentored by volunteers from 100 Black Men of Chicago and Chicago Professional Chapter of the National Society of Black Engineers (NSBE), a FIRST Alliance. By the end of the FIRST RISE season, the Brogrammers built and programmed a competitionready robot to compete in three division meets and alongside seasoned teams at the Chicago South League Championships. "Given the impact of the program as evidenced in the impressive rookie year performance, I look forward to the continuation and expansion of the FIRST program," said team coach and 100 Black Men of Chicago volunteer mentor Aaron D. Dorsey.

# FEBRUARY 25, 2020

FIRST is part of a key storyline on the ABC sitcom "black-ish" featuring several real FIRST teams and a cameo from Dean Kamen.



#### MARCH 10, 2020



FIRST announces Ford Motor Company has joined more than 20 innovative companies as a FIRST Strategic Partner, the highest level of sponsorship of the FIRST mission.

#### MARCH 12, 2020

Following the global outbreak of COVID-19, FIRST suspends the event season and cancels the international 2020 FIRST Championship. FIRST teams mobilize to solve pandemic-related challenges in their communities.

#### APRIL 10, 2020

FIRST launches <u>FIRST</u> <u>@ Home</u>, a free online resource with opportunities for remote learning/skills development, FIRST-supported activities, and staying engaged remotely.



PRESENTED BY Qualcom

#### MAY 2, 2020

Dean Kamen awards the annual FIRST Founder's Award to the FIRST Community during the FIRST Virtual Showcase presented by Qualcomm, an online gathering to recognize achievements of FIRST teams, mentors, and volunteers during the season.









# SCHOOL DISTRICT PARTNERSHIPS INCREASE ACCESS

During the *FIRST* RISE season, more than one-third of public K-12 districts had at least one *FIRST* team, and 45% of U.S. public schools with *FIRST* programs were Title I schools, meaning they serve a high percentage of students from low-income families – students who historically don't get access to the same meaningful opportunities as their peers. To close the gap, many districts implement *FIRST* programs through generous sponsor funding and support from the *FIRST* School District Partnership Program. This season, *FIRST* worked with sponsors to bring millions in funding to school districts in need around the country to increase access to *FIRST*.

The mantra at Greenfield Union School District, which serves approximately 3,600 PreK-8 students in Greenfield, Calif., is "ALL means ALL". With 95% of students from socioeconomically disadvantaged families and 59% English learners (many speak Spanish at home), equity and access are critical when implementing new programs. "We want to make sure that, whatever we do, we do it on a large scale, so every student has that experience," said Superintendent Zandra Jo Galván.

In support of the district's goals, FIRST Strategic Partner Apple provided funding for FIRST Class Packs, FIRST Certified Professional Development, and other materials and support that enabled Greenfield to bring an in-classroom FIRST LEGO League experience to every PreK-6 student in the district. The district also plans to bring FIRST Tech Challenge opportunities to middle school, when students have access to career pathway electives. "The Apple funding has opened doors for our students through innovative technology, professional training, creative spaces, and thoughtful exposure and opportunity to STEM careers," Zandra said. "Imagine the amazing skill level of our students that are going to be entering careers within the vast STEM fields because of Apple and because of FIRST."

COVID-19 interrupted the district's plans for an intra-school celebratory *FIRST* event, but that hasn't slowed excitement for *FIRST* from teachers, parents, and students. "They learn so much conceptually by being able to build and design. They're able to use reading and mathematics and writing and the languages they're learning as it applies to engineering and designing their robots. The kids love it," Zandra said.



# FIRST COMMUNITY RISES AS A FORCE FOR CHANGE

Inspired by the FIRST Core Values and the FIRST RISE powered by Star Wars: Force for Change season, the FIRST community created meaningful change at home this year. The stories that follow are just a sample of the thousands in our community worldwide who embody what it means to be a "force for change".

# FIRST CORE VALUES

We express the FIRST philosophies of Gracious Professionalism® and Coopertition® through our Core Values:

**DISCOVERY** We explore new skills and ideas.

**INNOVATION** We use creativity and persistence to solve problems.

**IMPACT** We apply what we learn to improve our world.

**INCLUSION** We respect each other and embrace our differences

**TEAMWORK** We are stronger when we work together.

FUN We enjoy and celebrate what we do!



# JUNE 22, 2020

FIRST is featured on an episode of Food
Network's "Duff Takes the Cake," where celebrity
baker Duff Goldman delivers a FIRST RISE droid
cake to teams at the INFINITE RECHARGE™
Los Angeles North Regional competition.

# JUNE 29, 2020

Twenty international FIRST LEGO League Challenge teams are honored for their innovative solutions during the remote broadcast of the 10<sup>th</sup> annual FIRST LEGO League Global Innovation Award presented by Disney.

TOGETHER, WE RISE





Students from FIRST Robotics Competition team "Frog Force" deliver PPE in Michigan.



Students from the "Afghan Dreamers" work on a ventilator prototype in Afghanistan.

# FIRST TEAMS SOLVE

Amid a global crisis, the *FIRST* community has demonstrated *Gracious Professionalism*, compassion, and a commitment to community. *FIRST* teams around the world are using available resources, their STEM skills, and *FIRST* values to lend a helping hand to their communities as they navigate the COVID-19 pandemic.

Whether they were **3D-printing PPE** for healthcare workers, **donating items** to local businesses in need, or finding **creative ways to stay connected virtually** or from a safe distance, *FIRST* students, mentors, coaches, and volunteers stepped up to make a positive impact in an unprecedented situation.

For example, the "Afghan Dreamers," an all-girl FIRST team in Herat, Afghanistan, used their limited resources to create a ventilator prototype out of used car parts and provide aid to their community. "It was very important to us if we could save one life through this effort," team member Nahid Rahimi told Fast Company.

In response to the severe shortage of personal protective equipment (PPE) available to frontline workers in the United States, *FIRST* in Michigan launched the nationwide 1 Million PPE Challenge. As of September 2020, *FIRST* teams across 13 states have created and donated a combined 2,261,713 units of PPE to their local hospitals and medical providers.

These stories are a true testament to why Dean Kamen founded *FIRST* 31 years ago: to inspire generations of young people to develop a passion for STEM and innovation and apply their skills to the most pressing challenges humanity faces.





















# TEAM INVENTS ECO-FRIENDLY CONSTRUCTION MATERIAL

When tasked with identifying a real-world problem and providing a solution to improve their local community during the FIRST LEGO League Challenge CITY SHAPER™ season, team "Aldeatron Robotix" of Canary Islands, Spain, rose to the challenge. "We live on an island where resources are scarce, forcing us to import [materials] from the Mainland, increasing environmental contamination and product costs," said team coach Tony Cuesta.

The team, winner of the 2020 Global Innovation Award presented by Disney, put their creative minds together to find a solution and developed E-Wall, a low-cost, light-weight building block made from recycled cardboard and fountain grass, an invasive species in the Canary Islands. E-Wall can be manufactured locally and takes the place of conventional building blocks and insulation, making affordable, comfortable, and eco-friendly homes for everyone in their island community.

# STUDENT ADVOCATES FOR STEM IN HER COMMUNITY

As a young African American woman, FIRST Robotics Competition student Nialah Crosby of Detroit, Michigan, recognized the underrepresentation of people who look like her in STEM fields first-hand. Determined to help transform the statistics, she has dedicated her high school years to growing her STEM skills while advocating for Black rights, recruiting more girls on her robotics team, and making her voice heard in her community.

Because of her commitment to seeing more women of color in STEM, Nialah was crowned the very first Miss Juneteenth in Michigan: "I try to live my life being a 'force for change' as a member of FIRST and as the first to be crowned Miss Juneteenth in Michigan. Usually, Miss Juneteenth is an adult. Why did they crown me? Because despite my young age, I am a 'force for change.' Less than 1% of pilots in the world are African American women, but I am changing that. 19% of robotics engineers are women, but I am changing that."

# **EDUCATOR EXPANDS ACCESS** TO STEM OPPORTUNITY

When Danielle Jenkins found herself immersed in the world of FIRST through her daughter's FIRST LEGO League team, she quickly came to realize that they were part of something life changing. As a special education teacher, Danielle decided to form a FIRST LEGO League Challenge team for her students with intellectual disabilities - the first team of its kind in her state of Georgia – to ensure that her students receive the same STEM opportunities as others. Not only has being a part of FIRST LEGO League changed the ways in which her students view their abilities, but it has also impacted the ways others do too.

"My students are paving the way for other students with disabilities to become more engaged in robotics education. I don't think they realize quite how big their impact has been, but I do know that their confidence levels have sky-rocketed throughout this process," Danielle said.





# A **SEASON** IN **NUMBERS**

infrastructure-themed challenges

students in ~110 countries

mentor, coach, judge, and volunteer roles

20+ million

volunteer hours served

scholarship opportunities totaling

\$80+ million from 200+ providers

official events















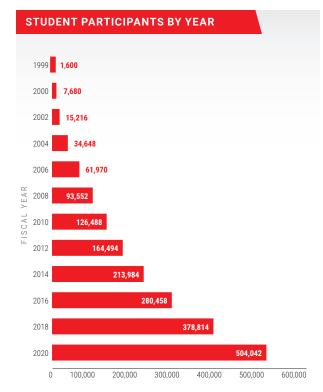
Students worked together to build cities of the future. In **BOOMTOWN BUILD**,<sup>SM</sup> Discover and Explore teams\* used their imaginations to create a building that solves a problem and improves quality of life, built a LEGO® model, and tracked what they learned in an Engineering Notebook. Explore teams brought their model to life using LEGO® Education WeDo 2.0. In **CITY SHAPER**,<sup>SM</sup> Challenge teams\* identified a problem with a building or public space in the community and designed a solution. Each team also built and programmed an autonomous LEGO robot to solve architecture-themed missions on a playing field.



**SEASON SNAPSHOT** Twenty FIRST LEGO League Challenge teams were honored for their innovative solutions during the 10th annual Global Innovation Award presented by Disney, which was held as a remote broadcast on FIRSTtv on June 29. Reviewed by a remote panel of expert judges, submissions ranged from biometric hardhats and sustainable road sealants to inclusive communication tools in playgrounds and created spaces to reduce food deserts. "Team Aldeatron Robotix" (shown above) of the Canary Islands, Spain, won the top \$20,000 prize. Runner-up teams "8 To Automate" of Dublin, Ohio, U.S.A., and "QuickBots" of Dayton, Ohio, each won \$5,000.

"I've been passionate about technology and engineering since I was little. I started a community FIRST LEGO League team after checking out an event in fourth grade with my Dad. After getting hands-on experience, I discovered a specific love for mechanical engineering and plan to major in it in college. I was also able to land an internship last summer, and I adapted much guicker than a typical intern because of all the skills I learned on my FIRST team."

- <u>Ishaan Oberoi</u>, FIRST alum, Rockville, Maryland, United States, FIRST LEGO League Challenge Team "Mindstorm Mastermind" and FIRST Tech Challenge Team "Wizards. Exe" (2019 Inspire Award recipients)



# **SEASON FACTS**

504,000

students in ~100 countries explored STEM concepts and gained real-world problem-solving experiences through the guided, global FIRST LEGO League program.

4,562

**Discover** Class Packs

38,609

Challenge individual teams

Challenge Class Packs

Explore individual teams

337

**Explore** Class Packs

236

**Explore** School Packs





In **SKYSTONE**<sup>SM</sup> **presented by Qualcomm**, teams worked in an alliance to build a superstructure within a burgeoning future city. Students programmed their robots to compete in two-and-a-half minutes of game play with autonomous and driver-controlled sections. Tasks included laying their foundation in their building site, delivering stones from the loading zone to the building zone, placing stones on their foundation, navigating their robots under the bridge, and topping their structure off with a final capstone of their own design.



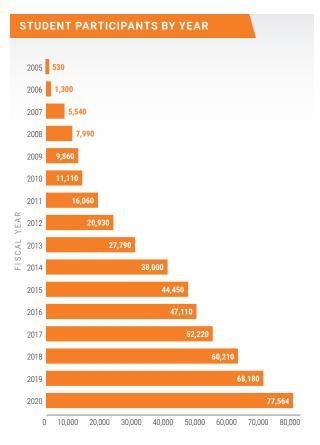
SEASON SNAPSHOT In this episode still from ABC sitcom "black-ish," Jack Johnson (actor Miles Brown) shows his dad, Dre (Anthony Anderson), "LeBot James," his robotics team's robot. The robot (real name: "Sally Ride") was built by FIRST Tech Challenge Team 3526 "Marlbots" for the ROVER RUCKUS™ presented by Qualcomm season and repainted for use on the "black-ish" set. Several FIRST teams participated in filming the episode, which featured scenes at a FIRST event and a cameo from Dean Kamen.

"Robotics changed the outlook of my life. I started to find my purpose. Bruce was there along the way to say, 'You can do this.'"

-<u>DeAnna Kinds</u>, FIRST alum, Chicago, Illinois, United States

"I thought maybe I could learn something as much as I could teach."

- Bruce Peterson, FIRST Tech Challenge mentor, Chicago FIRST Tech Challenge Team 116 "The Crazy Eights"



**SEASON FACTS** 

77, 560

students in ~60 countries developed STEM skills, practiced engineering principles, and explored the value of teamwork through FIRST Tech Challenge.

7,610 individual teams

Class Packs





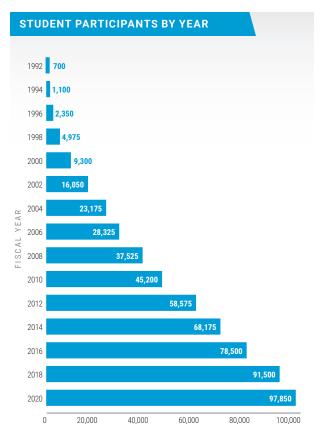
In **INFINITE RECHARGE**, teams worked in alliances to protect *FIRST* City from approaching asteroids. Alliances, along with their trusty droids, were challenged to collect and score Power Cells and manipulate the Control Panel to energize their Shield Generator for maximum protection. Near the end of the two-and-a-half-minute game match, droids raced to their Rendezvous Point and lifted to activate their Generator Switch in order to protect the city.



SEASON SNAPSHOT Star Wars droid R2-D2 makes an appearance at the 2020 INFINITE RECHARGE™ Kickoff event in Manchester, N.H., on January 4, 2020. The event is an opportunity for teams from all over the world to come together as a community to share in the excitement of seeing the new game unveiled. Teams at nearly 160 Kickoff sites in countries all over the world such as Australia, Canada, Dominican Republic, Israel, Mexico, Turkey, and the United States watched the proceedings via live broadcast.

"Before joining FIRST, I was really shy and didn't really fit into the norms of my region. I joined FIRST on a whim. I was plopped into the captain and driver roles by my lead mentor. By the end of the season, my shell had broken. Now I am one of the two lead mentors of our program. I try to carry and develop the same experiences and lessons I learned as a student to my students. I want to make sure the per-student impact is as high as possible, which means a combination of interpersonal development and thoughtful approach to design."

- Jaci Brunning, FIRST alum and mentor, Perth, Western Australia FIRST Robotics Competition Team 5333 "Can't C#" and Team 5663 "Ground Control"



# **SEASON FACTS**

97,850

students in 36 countries unlocked real-world engineering concepts, self-confidence, and workforce skills, supported by professional team mentors and sponsors.

individual teams

rookie teams



# A LEGACY RISES: REMEMBERING DR. WOODIE FLOWERS

# FIRST EXECUTIVE ADVISORY BOARD CHAIR EMERITUS AND DISTINGUISHED ADVISOR

Dr. Woodie Flowers, "Woodie" as he was known to all in the FIRST community, passed away on October 11, 2019, at the age of 75. Woodie, an innovative and beloved Pappalardo Professor Emeritus of Mechanical Engineering at the Massachusetts Institute of Technology, collaborated with FIRST Founder Dean Kamen to develop the FIRST Robotics Competition and coined the phrase Gracious Professionalism, which encourages high-quality work, emphasizes the value of others, and respects individuals and the community in pursuit of a meaningful life.

Survived by his wife and partner, Margaret Flowers, the couple had no biological children, but she said in an interview, "the MIT kids and the *FIRST* kids were our children." Throughout his 30 years of involvement with *FIRST*, the couple, together, were tireless advocates for the organization.

On December 9, 2019, FIRST hosted a global celebration of life and remembrance for Woodie as part of community-wide efforts to celebrate his life and honor his legacy. His legacy will live on as the FIRST community continues to embody his words and actions.



Several previous Woodie Flowers Award recipients presented the 2019 honor to FIRST alum and mentor Allen Gregory IV at the 2019 FIRST Championship.

# WOODIE FLOWERS AWARD

The Woodie Flowers Award (WFA) celebrates effective communication in the art and science of engineering and design. Dr. William Murphy founded this prestigious award in 1996 to recognize mentors who lead, inspire, and empower using excellent communication skills - starting with Woodie himself. WFA winners serve as valued advisors to FIRST. The 2020 WFA was awarded to Lucien Junkin, mentor for FIRST Robotics Competition Team 118 "Robonauts" from Houston, Texas, who has been involved with FIRST for nearly as long as Woodie, mentoring the Robonauts for more than two decades. Also like Woodie, with his boundless enthusiasm and contagious intensity, Lucien's unique style of teaching has ignited a passion for engineering within his students

# WOODIE FLOWERS MEMORIAL GRANT

Starting in late 2020, FIRST will award the Woodie Flowers Memorial Grant annually to one winner of the FIRST Tech Challenge or FIRST Robotics Competition Dean's List Award, which celebrates outstanding student leaders whose passion for and effectiveness at attaining FIRST ideals is exemplary. The Grant, funded by generous donors, is for \$10,000 per year, renewable up to four years, and is applicable for majors in a STEAM discipline and may be used by recipients attending an accredited university of their choice.

## WALK LIKE WOODIE

Founded by students from "Camdenton LASER 3284" FIRST teams and embraced by the FIRST community, #WalkLikeWoodie invites FIRST community members to post photos and memories of Woodie on social media, and to share acts of Gracious Professionalism and ways they intend to follow in his footsteps. Many posted photos wearing Converse, part of Woodie's signature style.



The 2020 WFA was awarded to Lucien Junkin, mentor for FIRST Robotics Competition Team 118 "Robonauts" from Houston, Texas.



#WalkLikeWoodie was founded by students from "Camdenton LASER 3284" FIRST teams and embraced by the FIRST community.

"Think of FIRST as a catalyst in a chain reaction. Each collision releases human potential which feeds an exponential expansion of additional human potential. FIRST students seize this opportunity by being informed, being creative, and thinking hard - all three, all the time." -Dr. Woodie Flowers



# FIRST HONORS SOLEDAD O'BRIEN, PRAISES YOUNG INNOVATORS

The fifth annual *FIRST*, Inspire Gala brought hundreds of *FIRST* supporters to New York City on November 7, 2019, to raise funds to further expand students' access to life-changing STEM experiences that spark interest, inspire self-confidence, and build critical workforce skills.

"In our culture, you get the best of what you celebrate. There aren't a few million positions available in the NBA, the NFL, or Hollywood. There are a few million positions open in STEM industries, and they are desperate for skilled people to fill these roles. It's time to accelerate the rate at which FIRST is adopted."

— Dean Kamen, FIRST Founder

→ Thank you to our *FIRST*, Inspire Gala sponsors who appear on page 37 of this report.



Award-winning journalist, speaker, author, and philanthropist Soledad O'Brien received the "Make It Loud" Award. Since 2014, the Make It Loud Award honors the individual(s) who significantly contributed to raising awareness of FIRST amongst the general public. O'Brien was recognized for her many efforts to "make it loud" for FIRST throughout her career, including a recent in-depth feature for HBO's Real Sports with Bryant Gumbel. At the gala, O'Brien sat down with Megan Gupta-She, a student on FIRST Tech Challenge Team 310 "Stuy Fission," for an uplifting and empowering conversation about education, the importance of storytelling, and the value of hard work.



FIRST alum Tia Singh, an aspiring CTE (Career and Technical Educator), received the "Evelyn Kamen Rising Star" Award for her dedication to continuing to live the FIRST ethos in a way that is inspiring the next generation of FIRST participants. Singh is pursuing an Instructional Technology Master's Degree at New York Institute of Technology and teaching and industry opportunities. As a FIRST alum, she volunteers at FIRST events, mentors her high school FIRST Robotics Competition Team 1796 "RoboTigers," and helps support team sustainability in the FIRST community through workshops and other support.

# SPONSORS AND CONTRIBUTORS

Through *FIRST* programs, kids of all ages and backgrounds are building pathways for their futures. As a nonprofit more than three decades into our mission, we know we would not have this impact without the support of our sponsors, suppliers, donors, and other financial contributors. Their partnership, acknowledged on these pages, enables our participants to have the tools they need to succeed and build a better world.

Together, we RISE.

# 2019-2020 FIRST STRATEGIC PARTNERS















































# FIRST FOUNDING SPONSORS













Johnson Johnson







# 2019-2020 FIRST CONTRIBUTORS

# CORPORATIONS AND FOUNDATIONS

# \$1,000,000+

Amazon Apple

The Argosy Foundation
The Boeing Company
Collins Aerospace
Dod STEM

The LEGO Foundation Lockheed Martin Corporation

National Aeronautics and Space Administration (NASA) Glenn Research Center (NASA)

Qualcomm Incorporated
Qualcomm Matching Gift Program ♥

Raytheon Technologies
Raytheon Intelligence and S

Raytheon Intelligence and Space Raytheon Missiles and Defense Rockwell Automation, Inc.

The Walt Disney Company
Disneyland Resort
Lucasfilm, Inc.
Walt Disney Imagineering
Walt Disney World

# \$250,000 - \$999,999

The 3M Company

Arconic Foundation

BAE Systems

**Bayer Corporation** 

Bechtel Group Foundation

Booz Allen Hamilton, Inc.

Bosch

Caterpillar, Inc.

Corporation for National and Community Service (CNCS)

DFKA Foundation

Dow

FedEx Corporation FedEx Freight

Ford Motor Company

General Motors Company

Google

Google Matching Gifts Program •

John Deere

Leidos, Inc.

Magna International

Medtronic, Inc.

Medtronic Foundation

Motorola Solutions Foundation

NI

PwC US TE Connectivity

Toyota USA Foundation Anne Wojcicki Foundation

Up to \$249,999

AAON, Inc. ABB Inc.

Abbott Fund

Accenture
Actuonix Motion Devices, Inc.

Acxiom

ADCO Manufacturing

Adkins Grading & Excavation, Inc. Advanced Micro Devices, Inc. (AMD) Advanced Research Chemicals, Inc. Advanced Technology Services, Inc. Aerojet Rocketdyne Foundation

AllianceBernstein

Altice USA

American Family Insurance Group

America's Charities

Amgen Foundation

Anonymous

Apex Foundation

Apollo Flight Research

Autodesk. Inc.

Automatic Data Processing, Inc.
Automation Federation/International

Society of Automation (ISA)
Azco, Inc.

Baker Hughes Co.

Balanced Security Ball Corporation

Balsam Ridge Retreat Camping

BancFirst

Bank of America Charitable

Foundation, Inc. In memory of Dr. Woodie Flowers

Bank of America Corporation

Bank of Utica

Barr Engineering
Bartlett Equipment Co.

Bar-Yadin Family Foundation
Baxter International Foundation

Bechtel Group Foundation

Beckman Coulter Foundation

Becton Dickinson Benefitfocus

Benton State Bank Best Buy Co., Inc.

BlackRock

Brooklyn Navy Yard Development Corporation

Cadence Design Systems Inc.

CadTalk

Canal Park Brewing Company

Canal Park Business Association (CPBA)

Canon Solutions America

Casey's General Stores

City of Cedar Falls

Cedar Falls Scheels

Cedar Falls Tourism and Visitors Bureau Channel Education Foundation, Inc.

Charities Aid Foundation of America

The Chickasaw Nation

Cirrus Aircraft
Cisco Systems, Inc.

Citrix Systems

City Year

The Coca-Cola Company Cognizant Technology Solutions

Comcast NBCUniversal
Consolidated Edison Company

Consolidated Edison Comp of New York, Inc.

Construction Engineers
Contura Energy

"FIRST demonstrated to me how life-changing educational access and experiential learning can be to a student's trajectory and how it can set the next generation up for success. Initially I started volunteering to stay connected to the FIRST community and to pay my own experience as a student forward. The longer that I have volunteered, the more important the mission of FIRST, and therefore supporting it financially, has become to me." — Pam Wong, FIRST alum, donor, and volunteer

Applied Materials

Applied Materials Foundation

Aptiv Foundation

Arco Murray Charitable Corporation Arizona Community Foundation

ARM, Inc.

Artificial Intelligence Podcast hosted by Lex Fridman

In honor of Lex Fridman Ascent Resources, LLC

ASMI

ASUS, Inc.

AT&T, Inc. Atlantic Health System

atlasG0

Atlassian Atos North America Bloomberg L.P.

Bloomberg Philanthropies Blue Spruce Brewing Company

BNY Mellon

Bonsall Education Foundation Bowers Consulting Co., LLC

In memory of Bart Kamen & Dr. Woodie Flowers In honor of Josh and Judy Weston

& Jim and Nancy Utaski

Brain Hackers Association
Bridgeview Business Services
In honor of Power Integrations,
Global Media Sales, Anritsu
Company, Hufmann Media, Analog

Devices, Aspencore Media Europe Briggs & Stratton Corporation Converge.Al

Corning Incorporated Cruise Automation

Cummins The Cup Lab, LLC

Davis Research Dell, Inc.

Delphi Corporation Delta Air Lines

Denso International America, Inc.

Devon Energy Corporation Digi-Key Electronics

DISTek Integration, Inc.

DonorsChoose Draper Laboratory

Dropbox

DTE Duke Corporate Accounts Payable Duluth Robotics, Inc. Dunwoody College of Technology DuPont Eastman Foundation Eaton Corporation eBay Inc. **Ecolab Foundation** 

Edwards Vacuum

Essentia Health

Greenspan Foundation Gundersen Health System The Harris Foundation Hartel's / DBJ Disposal HE&M Inc. The Bruce J. Heim Foundation The Leona M. and Harry B. Helmsley Charitable Trust

Helping Hands Foundation

Henny Penny Corporation

Hewlett-Packard Company

HMS Industrial Networks, Inc.

Honda of America Mfg., Inc.

Honeywell International Inc.

Honeywell Aerospace

Hutchinson Aerospace & Industry, Inc.

IBM Employee Services Center ♥

Herman Miller Cares

Hinotronics Inc.

Houston First

Howe Lumber

Hughes Family

Hillrom

Hilton

HelpSystems

Green State Credit Union

John Steele Zink Foundation Johnson & Johnson Family of Companies Johnson Controls, Inc. Johnson Research & Development Co., Inc. JPMorgan Chase Bank N.A. J.R. Automation JumpStart, Inc. Kennametal Foundation

Keysight Technologies

"Star Wars has always inspired young people to look past what is and imagine a world beyond. It is crucial that we pass on the importance of science and technology to young people – they will be the ones who will have to confront the global challenges that lie ahead. To support this effort, Lucasfilm and Disney are teaming up with FIRST to bring learning opportunities and mentorship to the next generation of innovators." - Kathleen Kennedy, president, Lucasfilm

Estée Lauder Express Employment Professionals Fastlane The FCA Foundation FIRST RGV. Inc. FLIR Systems, Inc. Florida Atlantic University Florida Power & Light Company Fluor Corporation Franklin Philanthropic Foundation Freshminds Frontstream GE Healthcare Gene Haas Foundation General Atomics Sciences Education Foundation General Dynamics Information Technology

Illumina Inasmuch Foundation General Electric Company Infineon Technologies Americas Corp. General Electric Energy (Power & Water) General Electric Transportation Intel Corporation Gentherm Intel Foundation GitHub. Inc. Intentional Innovation Foundation, Inc. Givable St. Louis International Paper Global Foundries InterWorks, Inc.

Goldman Sachs Group, Inc. Intuit Google Mayes County Intuitive Surgical, Inc. The GRACO Foundation Intuitive Foundation Grand Forks Visitors Bureau I.S. Technologies LLC dba Computer System Designers Grandma's Restaurant Company Isthmus Engineering & Granite United Way Manufacturing Co-op Great Lakes Science Center Jacobs Technology, Inc. Great Waters Financial

King High Robotics Booster Club, Inc. KIPP Foundation CA KLA-Tencor Komatsu Mining Corp. **KPMG** L3Harris Technologies Lakeside Foundation Lear Corporation Leighty Fund of the Community Foundation of Northeast Iowa LEM USA Inc. Leonardo DRS Political Action Committee Lexus Liberty Mutual Insurance Group Lincoln Savings Bank LinkedIn ListenUp Corporation Little Rock Advertising & Promotion Little Rock Convention and Visitors Bureau Logistics Health, Inc. LyondellBasell MacAir Aviation Make My Donation, Inc.

Martin Engineering

Mass Mutual Financial Group

Mathy Construction Co.

The Merck Foundation

MHI (Material Handling Institute)

Mattlin Foundation

R.J. McElrov Trust

Marvin Windows

Mastercard

News Corp Nidec Motor Corporation Nokia Bell Labs The NORDAM Group Nordson Corporation North Shore Bank of Commerce Northern Clearing Northrop Grumman Corporation Novelis, Inc. NRG Energy, Inc. nVent Management Company **NVIDIA** Corporation OCAST OGE Energy Corporation Foundation, Inc. Oklahoma Aeronautics Commission Oklahoma Army National Guard Oklahoma Business Roundtable Oklahoma Christian University Oklahoma City Convention and Visitors Bureau Oklahoma State University Optum Services, Inc. Oracle Corporation Oracle Foundation Palm Beach County Convention Center Parker Hannifin Corporation Parker Hannifin Foundation Parsons Government Services Partnership For LA Schools Paycom Payroll, LLC PavPal Pentair Foundation Pershing Square Foundation Pfizer Inc. PGE Foundation Phillips 66

Microdesk

Microsoft Corporation

MidAmerican Energy

Mitchell International

Mouser Electronics, Inc.

Moss Adams

National Grid

NCR Foundation

Neurelis, Inc.

NBT Bank

Milwaukee Tool Corporation

Minnesota Power Foundation

Multimedia Training Systems

National Technologies, Inc.

Newman's Own Foundation, Inc.

National Center for the Advancement

of STEM Education (nCASE)

Microsoft Matching Gifts Program •

Picatinny Arsenal Pitney Bowes Pitsco, Inc Plex Systems, Inc. Plexus Technology Group Plunkett Raysich Architects, LLC Power Foundation, Inc. PPG Industries, Inc. Presbyterian Health Foundation Probity, Inc. The Procter & Gamble Company Programming Electronics Academy In honor of Mario Kart, David Kha, Bill Bryd, Carlos Reyes, Fini McGlinchey, Bill Bryan & Jeff Secunda Protolabs Foundation Prudential Financial, Inc. PTC. Inc. Public Service Electric and Gas Questex LLC Ouicken Loans Ouoc Hai-Van Charity Foundation R2OC Rackspace Hosting Rapid 7 In honor of Frank Canapino Rattling Stick, Inc. Renewable Energy Group Repeat Business Solutions Rexnord Corporations Richard Riordan Fund Robison Engineering Company, Inc. Robotics Institute of Maine Rockville Robotics, Inc. The Roddenberry Foundation Royalty Pharma RPM International Inc.

RV Stripes & Graphics, Inc. TRI-COR Industries S&P Global TripAdvisor LLC S&P Global Foundation St. Louis Community College Foundation Salas O'Brien Salesforce.com Saturn Systems Inc. SBIA (SB Investment Advisors US, Inc.) Schneider Electric North America Foundation Science Applications International Corporation (SAIC) Science Channel SCREEN Semiconductor Solutions Seagate Technology, LLC Sensata Technologies

ServiceNow

Silicon Valley Community Foundation

Siemens

SIM Foundation Sisters Gro SMR Automotive Systems The Snowy Owl Foundation Solar Turbines, Incorporated DS SolidWorks Corporation Sony Corporation Southern California Edison SpaceX The Standard Stantec (US) State Farm Companies Foundation Stay in Duluth Stiles-Nicholson Foundation Sunny Days Charitable Foundation SUNY Polytechnic Institute Foundation, Inc. Switch Synnex Corporation Target Taylor Repair and Construction, LLC Tennant Company Tennessee Valley Authority (TVA) Tennessee Valley Robotics Teradata Corporation Texas Instruments Incorporated Thompson Coburn LLP Thrivent Financial Tipalti, Inc. TisBest Philanthropy TN FIRST Tokyo Electron Limited Torch Technologies TraPac TRC Pipeline Services, LLC Triangle Fraternity

> Tudor Investment Corporation Tulsa Technology Center Twitter Two Sigma Investments, LLC **UK Online Giving Foundation**

Underwriters Laboratories, Inc. (UL) United Health Group

United Rentals

United Services Automobile Association

United States Air Force United Therapeutics Corporation

United Way of Greater Nashua Universal Technology Corporation

University of Dayton University of Hawaii

University of Minnesota College of Science & Engineering

University of Tulsa US Bank Valeo Valmet Machine Tool Velmex, Inc. Vestas Americas Veterans of Foreign Wars Viasat, Inc. Viking Pump, Inc. Visit Duluth Warner Bros. Entertainment, Inc. Waterloo Technical Society Waterloo Warehousing & Services Inc. The Wildbasil Fund Williams Company Williams Foundation Fund at the

Tulsa Community Foundation Wisengineering, LLC Wolf, Greenfield & Sacks, P.C. Workday, Inc. Xcel Energy Xerox Corporation Yaskawa America, Inc. Zebra Technologies Corporation Zipline International 7oli

# INDIVIDUAL DONORS & FAMILY **FOUNDATIONS**

# \$100.000+

The Argosy Foundation DEKA Foundation Overdeck Family Foundation Charles and Helen Reichert Family Foundation Jagui E. Safra & Jean Doumanian Burt and Stanley Shaffer Foundation

#### \$25,000 - \$99,999

Anonymous Donald ■ & Susan Bossi Larry - & Tami Cohen Heinz Family Foundation Brady Law • McLelland Family Foundation John & Laura Overdeck

In memory of Dr. Woodie Flowers Robert ■ & Lynn Tuttle

Myron Ullman Josh ★ & Judy Weston

David Siegel

The Josh \* & Judy Weston Fund

#### \$5.000 - \$24.999

Armen Avanessians Bancroft-Clair Foundation Braverman Family Charitable Foundation Don Bulens Callahan Family Foundation

Stephen Charles Nathan Cohen Travis Covington Cosema Crawford A Patricia Daly & Henry Schreiber James Dimon

Michael Dubno ▲ & Loren Blackford Angela & David Filo

Russ Fowles Christopher Fultz Victor & Patricia Ganzi Frank Grossman Walter Havenstein ■

In memory of Dr. Woodie Flowers Howard Family Foundation

Paul Jacobs

The Keough Family Foundation Peter Larocque

Pablo & Almudena Legorreta

Lorelei Lotvin Donald Malone

The Marcus Foundation, Inc. Thomas & Paula McInerney

McMullen Family Foundation The Kenneth T. & Eileen L.

Norris Foundation

Soledad O'Brien

Gerald Oppenheimer Family Foundation Kelly R. ■ & Valerie Ortberg

Stephen & Jill Petty Julie Riggins Kevin W. Ross A

Robert & Lynne Schwartz

Robert Sobolewski A

Karl Sprules Gary & Diane Tooker

Anthony Tran James • & Nancy Utaski

Allen Weinberg

James & Miriam Weinstein Vincent ■ & Jean Wilczynski Wintemute Family Foundation The Zarrella Family Foundation, Inc.

Up to \$4,999

Nagaprasanna A. Christine Abidin Heather Abrams Redmond Abutin

Javson Adamic In honor of Cyrus Adamic

Carl Addu Stephanie Adkins Mark Adler Ahmad Adnan Alok Aggarwal Susan Agrawal Dan Aguayo

Ryan Ahearn

Lorraine Ahern

Steven Ahern

Holly Asti Lisa Aucoin William Aucoin In memory of Dr. Woodie Flowers

Ruben Auer Delena Austin • Wendy Austin Rebecca Avery • Frank Azor Blue Babbitt .

Stephanie Bach Samuel Bacon

Nancy Belkowski-Dudash

Barbara Bell Bob Bell Holly Bender Beth Bennett Christopher Bera Andrew Berger Marilyn Bernstein

In memory of Jesse Laufer

Aldo Bertucci Jayant Bhawalkar Ryan Biddle

"As a scientist, the biggest reward for volunteering is the inspiration from the creativity of youth. I also enjoy the bonding with my children and their friends. It is satisfying to observe in real time that they are gaining confidence through their work and passions and are feeling the real-world impact they have made on themselves and others." - Dawei Lin, FIRST coach, volunteer, and parent

Shane Alayvilla • Tracy Albert

In honor of Michael Albert Kennie Albritton

Manuel Aldana • Eric Aldridae

Samuel & Danielle Alexander •

Robb Allen John Allison Augusto Alonso David Alperovitz

In honor of Noah Alperovitz

Matthew Alvarado Cougar Ameda Shawn Andary Bridget Anderson Dale R. Anderson

In honor of Kristen & Scott Anderson

Denise Anderson Jeffrey Anderson Kaitlyn E. Anderson • Linda Anderson Richard Anderson Darvl Andrews Tarig Anver Philip Aponte Kristen Ardillo David Arenson

Al Arias Drew Armstrong Susie Armstrong Holly Arnold • Janani Arumugam Babak & Lisa Aryan Yong Bai Nitesh Bajaj • Dakota Baker • Julia Baker • Kimberly Balcerzak Karson Baldwin Isaac Bally • Belinda Balz Sharath Bangera Michael Banigan M. Banya Esthel Barbas Jason Bardis

Penny Barker In memory of Kendrick Castillo Caroline Barnes Tim Barrett Theresa Barthauer

Paul Bartomioli Paul Bastone Chris Batsch John & Patsy Batsch Wade Batson Tami Battaglio

In memory of Kendrick Castillo Warren Bauer

Zachary Baughman Paul Bauhahn Susan Baumgarten & David Totheroh

Sharon Baxter Spring Beasley

Beaulieu Family Foundation Brigitte Bedard

Joey Bedsole

Scott Biela Keith Bielat Michael Bigelow Michael Billings Philip Billings Angelique Bilodeau

Amy Binder Maureen Binetti In honor of Biren Rov Lori Birch

Elizabeth Birr . Chad Bishop Matthew Bisson • Rama Biswal Henry Bjorkman Chris Bjornson Mell Blackman Jonathan Blackwell Mary Blaha

In honor of Olivia Blaha

Janet Blair • Gary Blais Karen Blakeslee Damien Blanchard Jane Blandford Rhonda Bleeker Brooke Blew Tina Bliss Rachel Bobbins Elizabeth Boesen Chloe Bohlman BJ Bohnsack Nicki Bonczyk . Barry Bonzack •

Amanda & Robbie Borchik In honor of Brian, Shelley Sweeney, Bloch Mary Borromeo Mark Bouzek JoAnn Bovd Thomas Bradburn Joel Bradshaw Ray Bradshaw Joseph Brady Michele Braidwood Ernest Branigh Sarah Brant Martin Jeffrey Braun & Susan Holt Ellen Bray

Karl Brcker J. Bredemeyer Matthew Breitkreutz Kristin Bridges • Sandra Brino Sam Broadwater Julie Brobera

Christopher & Barbara Brody

J. Brooks Christine Brown Joshua Brown Kristin Brown Lowrie Brown Rebecca Brown Kelly Bryan Rebecca Buell • Mihai Bulic

In memory of Dr. Woodie Flowers **Bullard Family** Michelle Bullard Eva Bultman • Jonathan Bundy • Terrell Burch Maryellen Burchard Andrew Burger

Billy Burkey • Brendan Burkhart James Burns Madeline Burris . Beniamin Burwinkel Christine Bustle Dante Cabello • Carol Cafferty Minsi Cai Eric Calder B.W. Caldwell D.G. Callan Donald Callan Christopher Campbell

Hope Cannon

Thomas Campbell Jackson

Daniel Canterino Jon Capacci Tiberiu Capsali Scott Caradonna Ronald Cardullo Reid Carlberg Steven Carlson Timothy Carlson Lino Carnesecca Benjamin Caron David Carr Emily Carrigg L.F. Carrio Susan K. Carroll Deborah Carstens Ashton Carter Jonathan Carter Daniel Cartoon Donald Cassity Jorge Castro Frank Cavaliere Joe Cerrato Michael Chabinyc Shyanne Chan Thomas Chan Shivali Chandra . Ron Chaney Herbert Chang Powen Chang Pauline Chao Todd Chapman William Chapman Alex Charbonneau • Edward Charbonnet Damon Charity Nikolas Charos Rodolfo Chavez Boyuan Chen Robert Chen Thomas Cheney Susan Cheng Mario Chenier Alexander Chenvainu Nageswar Cherukupalli Ying Chi Yi Chieh Wang Babu Chimata

Mary Chiroi-Murphy Sanjay Choudhary Nina Chow Laura Christie Danielle Chronister Raju Chudamani David Clapp William Clarke

Steven Claucherty . Lynne Clements Guido Climer Caroline Cochran

In honor of Sonja Paige Jared Coke •

Stephen Colavito Jeremy Cole John Cole Karen Collins Melissa Colonna Heather Combs Carol Cone Justin Connell Allison Conrad . Karen Constine Robert Cooper

The Leon & Toby Cooperman Family Foundation

A.M. Cordes Nicholas Corgan **Edward Cormier** Paul Costa Janet Cottingham

In honor of Jason Kardon Sarah Cottingham • Richard Coutant Owen Coyne Julie Crawford Ken Crawford Maxence Crossley Jim Crowley Lydie Crowley Alaina Culleton

Ward Cunliffe James Cuseo Lawrence D'Addario Andrea & David Dahlin

Qing Dai Lori Dale

Anthony D'Alessandro In honor of Dan D'Alessandro

Janna Dallas-Wagner J.L. D'Andrea Jovce Daniel

In honor of Chad Zuber Mark & Betsy Daniels

Steven Dao • Dawn Da Silva

Mary Ann Daszkiewicz-Robertson

Lawrence Daube

In honor of Brian Sweeney

J M David Jonathan David Cindy Davidson

In honor of Bruce Hockaday

Bayleigh Davis •

In honor of Gabriel Alan Wood

Jeffrey Davis Kenneth & Lisa Davis Collins Dawson Gary Debes Robert Debes Bob Debes Jr. Joshua Decker

Thomas DeFeo-Gelman • Lauren Deleo

Steven Demeter

In honor of MedLink Corporation

Kerry DenHerder Gayle Denningham N. Dennis & Emily Ervou T.J. Dermot Dunphy Ellen De Rocco Palak Desai

Ananth Devarahalli Nagaraj Sravva Devi Dogiparthi Gretchen Devine • Laura Devlin Ginger DeVries Robin Dey Bob Dickerson Troy Dietz • Jason Dillon Lisa Di Pietro •

Deb Ditchman Elizabeth DiTucci Sanjay Dixit Emily Dixon

Zachary Dobberthien Brvn Dole In honor of Kevin Torrico

& Heather Bales James Donadio

Michelle Donegan Dominique D'Onofrio

Anthony & Judy Donovan Weiping Dou

Troy Douglas • Arpaporn Drum Jacquelyn Dudzinski • Tabitha Dunn Cindy Duran

Terry & Patti Durkin In memory of Scott R. Frock In honor of the Finance Team

Sophie Dyshlevich Chris Eastman Sean Fhanks Andrew Ebert • Allison Eckel Carol Edelman

William Eder Katherine Edgell Ross Edman Rusty Edwards Mark Eisenberg Richard Elliott Leslie Ellis

Becky Ellison Daniel Elnes Sally Emanuelli Mihaela Enachescu

C.A. Engelsen Shanna Ertell Lalea Evans Jessie F. C.A. Faconti Randall Fahey Patrick Fairbank

Ron Falcone Arif Farjana Shaun Farmer Bradley Faskowitz

Rubab Fatima Alisher Fazilov Lorilynn Feller Mariel Feller Jeff Fenstermaker Lisa Ferguson •

Alexander Fernandez Roslyn Fero • Erica Fessia

Miles Fidelman Eric Field

Brian Flinn

Howard & Margaret Fluhr Bernard Flynn Claire Flynn Marissa Folkert • Adina Forbes James Forbes

In memory of Dorothy Forbes

Richard Foster Robert Foster Caitlin Fowler Sean Fox • Peter Frank Charles Frary Frayne Family Latricia Frederick Ally Freer Altemose Donald French

In memory of Russell Steele

Susan Freng Carly Friedman Denise Friis-Zahrt Susan Fritz

In honor of Nick Bustle

James Fry • Cody Frye Rob Fuentes Tammy Fulton

In honor of Nick Bustle

Jeffrey Funk Michelle Gagnon Hong Gao John Gardberg Rashmi Garg

Tom George Maryann Germita Marissa Getchel Omar Ghani • Alexandra Giacchino Allan Gibbs

Bret Gibson • In honor of Dr. Woodie Flowers

Ruslan Gilfanov Michael Gindl Mark Giordono Pat Girard Bruce Gitlin Fliezer Glik Ayush Goel • Michael Goldfarb Alex Goldstein • Jeffrey & Doris Goldstein

Matthew Goldstein J.S. Golightly George Gomez Maria Gonzalez James Goodwill Jim Gorham Kristen Gorham Gregory Gorman Jane Gossard Timothy Goudge Robert Graham Maggie Grainger James Grant Ronald Gravelle

Peter Graven

"Inspiring next-generation innovators has never been more important in a world where technology is transforming so many parts of our lives so guickly, and only is speeding up. This is why Ford is not waiting for change to happen... To create this future, we are counting on a talented workforce of the type that FIRST's efforts are helping us to secure." - Ken Washington, chief technology officer, Ford Motor Company

James Fillman In memory of Dr. Woodie Flowers Juan Fiscal Carmel Fiscko . Bill Fisher John Fitzpatrick William Flege Edwin Fleischer Cherrie Fleisher-Strauss. Leslie & Simon Strauss

S.P. Fleming

Duane Flier

Michael Garretson Claire Garvin Adolfo Garza M.T. Gaska Amy Gauthier Paul Gautreaux Bruce Gay Feaven Gebrezgi • Jeffrey Gedeon Pat Gencarelli • Anthony Geniec

Barbara George

Ezra Graziano Peter Green John Greeniaus Helen Greiner Kelly Grevis Nate Gridley Eileen Griffee A. Griffin Stephenie Griffin • Joseph Griffith Justin Grindstaff

Christopher Grontkowski Brett Grossman Randy Groves Linda Grusenmever Sunny Guan •

Naoka Gunawardena • Barri Gurau

Stacy Gurel S.R. Gutterson Kariann Hafner

Reginna Hagemeier-Jones

George Hague Karla Hailer J.S. Haimowitz

Christopher Haines Karen Haithcock Paulina Hakopian Dave Hale Diana Haley M. Halford Spillane Reyna Hampton Sam Hand J.A. Harisha Fmma Harrelson •

Ethan Harris • Helen Hart Bruce Hartwell Robert Havlik

Rachel Hawkesworth Kvanne Hawkins Dean Hawkinson Kyle Hayden

Stephen & Lynn Hazard

Jeffrey Headley Carole Healey Katie Healey Spencer Hedlund

Lynne & Henry Heilbrunn Danielle Henderson

Paul Hendry Martina Henninger •

Miles Henninger Alexander Henry S.M. Heranic

Brian & Julie Herrmann

Roger Hertog Marillyn Hewson Barbara Higgins Keith Himstedt B.D. Hinde Jill Hines Karl Hinrichs Gary Hirschhorn

In memory of Marina Gelfand

Julie Hirschi

Beth Hirt • Yary Hluchan Dana Hobbs Evan Hochstein • James Holland

Shanna Jackson • Stanley Jacobs Lauren Jacques In honor of Evan Miracle Dani Jahnes

Jane Kamata Rajesh Kamath Michael Kannenberg An-Chian Kao Kathy Kappes-Sum

"My husband and I met through FIRST in 2001. Today, we're married with two kids who are approaching the age where they can participate in [FIRST LEGO League]. We are working in STEM fields (as an electrical engineer and a human geneticist) and wouldn't be in those jobs without FIRST." - Anonymous FIRST alumni donor

Carol Hollaway Leslie Hollaway Douglas Hong Michael Hooper Nicholas Hope P.J. Hough Bryan Houlberg Joseph Houle Eric Hounchell Beatriz House • Matthew Houser Steven Hovey Marc Howard Pam Howe Yvonne Hoxie Gower

Louis-Alexandre Huard Harry Huazhe Xu Jack Huddleston Francisco Huelsz Prince Alexander Hughes Glenn Hughes Harry Hull Mary Humphrey Jon Hunter Melricca Hunter

Samuel Hunter T.V. Hunter Richard Hurban Hutchison Family Fund L. Hutchinson

Janna Hutz • David Huwaldt Sophie Huynh Hans Hyttel Joseph laquinto Susan Ilax Nick Induni • Isaac Ingram Bruce loki Anne-Marie Ireland Renuka Ivengar

Nikhil Iyer

Ankit Jain Curtis James Austin Jenchi • Oliver Jenkins • DeAnna Jensen Jonas Jensen Haiming Jin Jianhong Jin Meghann Jo Keith Jobe Chris Johannesen Eric Johannsen Carl Johnsen Adam Johnson • Ashley Johnson Carrie Johnson Hans Johnson John Johnson Judith Johnson

Kenneth Johnson

Kurt Johnson In honor of Jim Rothrock Melissa Johnson Matt Johnson Sharon Johnson Taylor Johnson • Tessa Johnson Thomas Johnson In honor of Will Johnson Timothy Johnson Judy Joiner Edward Jones Jones Family Kelly Jones

Fd Jordan • Rob Jordan Andrea Joyce Camille Joyner Daryl Jung Evangeline Junge

Lori Kahn

Mattie Jones

Massoud Karbassian Karim Karim • John Karlen Danielle Kaschube Blaine Kashiwaeda Sumit Katara R.S. Katz Matt Kauppi • Gaku Kayano Mairead Kean C.W. Kebalo Thomas Keith Lara Keller Kvla Kellv • David Kelso In memory of Don Martin

Patrick Kennedy Dominik Kerschbaum • In honor of O Branch Robotics Emma Kerschbaum Ben Kershaw John Kesapradist

Ethan Kessel • Matthew Ketko Christy King Kenneth Kina Margherita King Nancy King Linda Kipp • Aaron Kirk Ann Kirschner Natalie Kirstein

Charles Kennedy

In honor of Bob & Lynn Tuttle

Kristina Klecka .

In honor of Andrew Nichols Jeff Klina

Joseph Kling Kathleen & George Klinich Jesse Knight

Emily Knopf Michael Knowles Jessica Kobierski Jiri Kocab Timothy Koch Stefanie Koenia

Kathleen & Michael Kolberg

Pranathi Kollolli

Derek & Angela Konigsberg •

Darren Kosinski Raghuram Kothakota Andrew Kowalik Edward Kraus Neil Krech William Kreutinger Matthew Krever

Anne Krombach & Mann Stack

Austin Kugler Elena Kuleshov Abhav Kulkarni Ice Kulsetsophon Rahul Kumar Ajay Kumar Natarajan

The Kunkel Family Foundation

Steve Kurtz Julia Kuziomko Llovd Kwan • Michelle Kwan Nathan Kwang • Dustin La • Zvi Ladin Phong Lam Alycia Lambert Trevor Lampe Greg Landry • Lanelle B. Landry

In honor of Louis Landry Stephanie Landry Ken Languedoc Joyce & Kevin Lantry Cuinn Larmon A.F. Latchford Kevin Lavery Jennifer Law • Susan Lawrence Paul ▲ & Kelley Lazarus Kurt & Laura Leafstrand

Daylin Lee Glenn Lee Martin Lee Paula Lee Scott Legasse Susan Leist Francis Lennex James Leonard

Jesse Leonard

J.D. Leonhardt

Laurie Leshin Elizabeth Lesley Carl & Doris Letendre Bilfred Leverette • James Lewey Greg Lewis John Lewis

In memory of Doug Hensley

Yiliang Liang Jordan Liebe • Marcus Lien Shi-Key & Irene Lin Carolyn R. Lindsay Chuping Liu Ningwei Liu Wendy Ljungren

In memory of Terry Mulkern

Donald Localio • David Logan Guy Lohman Wendi Lohmar

Michelle Long & Isaac Mishkit

Quietly Lost Alan Lotvin Daniel Lubin Vincent Lucarelli Jamee Luce Maxim Lukiyanov Jeffrey Lumsden Daniel Luna Nicholas Luther Sharon Lutz Michaela Lydon • Hanson Ma • Kyle Macey Brian Mackey Aimee Maclagger Sunaina Macwan Brianna Magallanes . Karthikeyan Mahalingam

Aaron Mailhot Martin Maikut . Pamela Maker Stacy Malecki Natalie Malone Sandeep Manjunath Camille Mankus

James L. Mann Living Revocable Trust

John Mannisto Kenneth Mantey Kamaraj Manthlakamatchi In memory of Donald Martin

Ian Marcellana George Marchant Beth Marcus Dawn Marie

Debbie Markarian Jason Markesino • Kristofer Maros Vivian Marr Chris Marra . Marianne Marrou Michael Marshall Ramachandran Marti Adam Martin Anya Martin Beniamin Martin . Diana Martin Grayson Martin Heather Martin Janice Martino Dave Mash Marshall Massengil Nicholas Mata .

Robin Matchett David W. Mather James Mathison Gavin Matthews Keith Mattox Joann Maurin Nicholas & Esther May John Maynard Casey Maynes Christian Mazzotta

In memory of Dr. Woodie Flowers

Tammy McCanna In honor of Taylor McCanna

Kathleen McAvoy

Mark McCombs . Tim McCoppen • Manjiri McCoy Loren McDaniel Kelley McDougall Tay McEvers Grace McFarland M.W. McGehee James McGill

In memory of Josephine McGill

K. McGowan William P. McGowan Scott McHugo Cassie McIntyre Scott McKay ■ Lilibeth McKechnev Lara McKenzie-Heckert Nick McMaster Nathan McMurray Byron McNaught Bonnie McNeill Tyrone & Lisa McNichols Kelly McNulty

Larry McWilliams

Darin Meek Chet Mehta Jvoti Mehta Kevin Meier Heather Meiring

In memory of Jason Meiring

Stephen Melamed Julie Mellor Joseph Menin Chris Meno Ranjit Menon Theresa Merino Frank & Deb Merrick Nicholas Mesenburg Samuel Meyers • Jennifer Micacci Dennis Michaud Gustave Michel • Rebecca Mick Christopher Mikus Andrew Milch Colin Mildenberger Crystal Miles

Anastasia Miliano + Dan & Kimberly Miller H. Miller

In honor of Micah Miller

Melvin Miller Richard Miller Wade Miller William Miller

In memory of Max de Esteban Marietta Miniares Gerald Mitchell Jonathan Mittelman Stephanie Monk Kristina Monson Suzanne Monthofer Maria Montiel Esparza Justin Montois Tonia Morawski Drake Morewood • Phyllis Morgan Rylan Morgan Susan Morgan Lauren Moroz John Morrell Elizabeth Morris Haley Morse Robert Morse

Marianne Mowery Peter Mueller

Linda Muhawieh In memory of Kendrick Castillo

Andrew Mullin

Sailaja Mothukuri

Donald Mullin Ben Muma • Aidan Mundy • Michael Muren Colleen Murphy Marian Murphy

In memory of Dr. Woodie Flowers

Mike Murphy Seanan Murphy Angela Murray • Victoria Murray In honor of Bill Murray Saniana Murthy . Sowmya Murthy Karlis Musa S.G. Musgrave Heather Myers Khinlei Mvint-U Daniel Nadeau Ravikiran Nagavarapu Nash Family Foundation Melodie Nathan Denise Naugler Logan Nault Kathy Naum

Jose Nazario In honor of Jose Nazario

Judy Nee Samuel Neff • Natalie Negulescu • Joseph Nelson Michael Nelson Nathan Neumann Ron Newcomb Merle Newlon III Spencer Na • Hien Nguyen Kim Nguyen Thomas Nguyen William Nguyen Max Nibert Isabelle Nichols Karen Nichols Margaret Nichols Thomas Nigl Kymba Nijuck Sheila Nirenberg

Cody Nonemaker In honor of Christopher Senus

Gene R. O'Brien Jennifer O'Callaghan Dan O'Connor Jim O'Connor Morris Offit

Craig Nishimura

John Niski

Diane Okerson In honor of Ryan Okerson

Ryan Okerson Carol Olewine

In memory of Steve Stark Spencer Olin Taylor

Manuel Olivas Patricia Oppenheim Cary Orlandi Lisa Orme Michael Orstrowski Ariana Ortlieb R. Osborn Robert Osborne Barry Ostrowsky Justin Ott

Eve Ou Oyedepo Oyerinde • Nicole Ozark Pushpalatha P. Brittnev Pachucki Cynthia Paden Prasanna Padmanabhan Alexander Padron Albert Pallanti

Priyanka Pant Kelly Parent Donna Parisi Ben Park Justin Park • Javne Parker

Michael Parker Paul Parker David Parks Diane Parks Ryan Parliment Sriharsha Patil Anne Patterson

William Patterson

Michael Pelland

In honor of Michael Pelland Arnold S. Penner Foundation, Inc.

Aaron Peplinski Rodrigo Perales

In honor of Rodrigo Perales

Ludivico Peralta Henrique Pereira Chamal Perera Frica & Francisco Perez Jondyle Perkins Sam Perlmutter Barbara Perlov

Joseph Pernici

In honor of Nicole Ransone

Jordan Perr-Sauer • Michael Petersen In honor of Lillian Smith Steve Peterson Gregory Petrick Alan Pezza Jennifer Pfeffer • Jason Phelps Stephen Philpott Paulina Phu Thomas Pickering Pickett Family Foundation

Andrew Pike David Pikulin Christopher Pinkenburg Chris Pinto Kelli Plasket Nick Plonka Brenda Pluchinsky

Joev Pietrzak

Joseph Polin Michael Pomianek Garrett Ponder

Kevin Porter

In memory of Dr. Woodie Flowers

Shashi Prakash Marcy Prem

Robert & Stacy Pressman

Janet Price Jared Price Chris Prince Nicholas Priore Theo Prodromitis Jane & Thomas Propst Kimberley Prygocki-Jeakins . & David Jeakins

Drew Purdie • Steven Pvatt

In honor of Robert & Lynn Tuttle

Alex Quach Rodney Oualls Deana Quigley Kieffer Ouitaven Elijah Rae Valya Ragu Julia Rahie Geoffrey Rake Sekhar Ramaswamy Gareema Ranjan Scott Rankin Asmita Rao Murli Rao

Aaron Raphel Charitable Fund

Kitty Ratcliffe Jeffrey Rauen Murali Ravel Jeffrey Ray Hari Rebala Rathiha Reddy Abhiram Reddy Satti Michael Reed Susan Reese

In memory of Jeff Reese

J. Reeves

"John Deere's support assists FIRST in inspiring innovators and increasing access to STEM literacy for young people. This includes encouraging participation in STEM curriculum for students who are underserved and underrepresented... Deere recognizes the need to support the innovators who will provide the necessary answers in dealing with new problems."

-Pat Barnes, global program director, STEM & youth education, John Deere

Mary Ann Paul In honor of Robert James Paul Tracey Pause Thaddeus Pazulski Spencer Peat .

Josef Pelei

J.D. Posev Cynthia Potter Jeremy Pound John Powley In memory of Dr. Woodie Flowers Craig Reickert . Stephen Reilly Stephen Reinert Brad Reisner Claire Renner

Aaron Revnolds Michael Reynolds Susan Rhodes Kvle Ribordy • Roberta Riccio

Jennifer Rust The Ryan Family Foundation

Skv Rvbolt . Neha S. Valerie Sachs

Grea Sevcik Stephen Sexton John Sevbold Gaurang Shah Niral Shah

"These students are the innovators of the future, and we're confident that this hands-on experience provided by Amazon Future Engineer will inspire them in their academic pursuits and beyond." - Jeff Wilke, CEO consumer worldwide, Amazon

Robert Richards D. Richev Ariel Rideout Ann Ridge Julia Rieger David Rimkus Joseph Risi •

Tyler Rist

Peggy Ristas

Luis Rivera • In memory of Dr. Woodie Flowers

Adam Rizika Jessica Roach Garth Roark John Roberts Shawna Roberts Curtis Robertson Brennan Robinson Charley Robinson Chris Robinson Kristi Robinson Reginald Robitaille

Andrew Rodebaugh • Jonathan Rodin Gracie Rodman Carlos Rodriguez

Jazmin Rodriguez • Miranda Rodriguez Michelle Roehl .

Chris Rogers Beth Rokus

Brenda Ronnebaum Brendan Ross Elizabeth Ross Stanley Rowin Leonard Rucinski Juana Rugiero Lori Ruhlman

Sam Ruppert Barbara Russell Christopher Russell Lorrie Russell

Rick Russell

Edward Rust

Ashish Sadhu Jordon Sage 4 Ezmeralda Sager Shrey Sahgal Terri Sahli

Roopesh & Shreya Sahu Steven Sahvun Helen Sain Breanne St. Martin Sakamoto Family Fund

Adam Salem Daniel Sallet Owen Salter Oluwafemi Samuel Dolores Sanchez Claire Sanderlin Amanda Sankey Michele Santillan

Jagadeeswari Saravanan Lisa Sarto • Michael Sbarra . K.R. Scalera Kristine Scarpone Kim Schachtele Evan Scheessele William Scheidegger Mark & Juanita Schemel Randy Schiestl

James Schnur James Schreiner • Surbiit Schuler Jordan Schulman Darrell Schultz Lucy Scott Tiffany Sees Nathan Segura .

Cathy Seiford In memory of Dick Schlener

Sarulatha Selvan Ronald Semel Theodore Sender • Irene Sergonis P.M. Sesha Chad Seuser

Harold & Janie Shanafield

Neal Shapiro •

Seth Sheehan • Milnita Shelton Jonathan Shepard Karl Shepherd Brian Sheridan • Eric D. & Mary Sherk Yoji Shimizu Nathan Short Gregory Shoup Ehtisham Siddigui Lou Anne Siefert Jeffrey Siegel Mariana Sigala • Fred Silberberg **Brandy Simmons** 

Ellen Simon William E. Simon Foundation Flisabeth Simonovich • In honor of Da Baes Roger Sinasohn

Donna Sinclair Carol Singer & Daniel Bricklin Naveen Sinha Sandeep Sinnarkar Umesh Sirsiwal

Rick & Dona Sisk

Roy Sivley Lawton Skaling Shari Slate Roni Slavin Perkins In honor of Toby Clarke Kim Sleeman-Ozark Erica Slomka Amy Smith

Beverly Smith David Smith Joan Smith Melissa Smith . Samuel Smith . Tracy Snead Melissa Snider Christopher M. Sobecki Andrea Sobel Jeffrey Soesbe Justin Sohl • Miriam Somero Monika Sommerfeld Sakshi Sood Jason Soucy Eileen Span Glenn Speights Sean Spence

Andrew Spencer Kaitlyn Spencer • Michael A. Sperber Debbie Spoehel Valerie Sposato Cheryl Sprague Stephen & Tina Squeri Nandini Srinivasan Donald Stacy Julia Stander Lynes Stanfield Moira Stanford Greg Stanton Marra .

Jacob Stecher Logan Steffen • Michael Steinhardt Leslie Steinmeyer Linda & Brian Sterling

Jason Stern Stephanie & Jeffrev Stern

David Stevens Marc Stevens Nancy Stewart Nicholas Stewart Michelle Stills Richard Stocking Scott Stockton

Connor Stokes In honor of Sonja Page

Mark Stokes Ted Stokes Dia Stolnitz Joshua Stone Linda Stone Dean Storgaard Brian Stottler Kerby Stoudt Catherine Stowell John Strangfeld Scott Strecker Gillian Sudak Sullivan Family

Kynna Sullivan In memory of Keta Meera Sahebu

Neelima Sunku Noah Suttles

Noah Sutton • Eric Suydam Marvana Svvatskiv Douglas Sycamore Cameron Szachta

In honor of Parker Szachta

R.P. Takeshita Li Tang Yaping Tang In honor of Him Him Bruce Tannahill Xing Tao Devandra Tata Joseph Tate Kobi Tate • J.P. Taylor Priscilla Taylor Darrell Teague Richard Teel Linda Tenda

Karen Tenhagen

Paul Tenreiro

Kevin Tracev Aria Trampe

In memory of Kendrick Castillo

Dzung Tran Kieu Tran Andrea Tribo •

In memory of Mike Wade (Former NASA Goddard)

Stephen Trichka Dawn Truhn John Truslow Gauri Tulja S.K. Tyler Justin Ulland Anna Unger Jason Upton Phoebe Urakov David Urban Myron Uretsky Marcus Urso-Bernick Roman Uvavdov

Ronald Uyeno

"During these challenging times we hope we can help inspire young people to look for solutions to big problems and find satisfaction in helping making the world a better place." - Anonymous FIRST donor

William R. Terry In memory of Caspar Terry

Lakshmi Thangaraj Gopakumar Thankappan

Dean Theodos Mike Thesenvitz AnnMarie Thomas Cindy Thomas Trevor Thomas William Thomas Jocelyn Thompson

Nate Tibbits Frank Tierney Barb Tierney-Bibler Matt Tighe Brynnan Timmerman

In honor of Chris Cortez

Good Today Patrick Todd Nezam Tooloee Jay Topper Sean Torpey • Isabella Torres • Steven Toupin

Joseph Valleio Kelli Van Antwerp • Cory Vander Jagt Robert Van Ham John Vanleeuwen Richard Van Smith

Jo Ray Van Vliet In honor of Bart Sudderth

Balakrishnen Varadarajan Joe Varnell

Sajna Veettil Ashley Veli Andrew Vergara Attorney Vg Brooks In honor of Jonathan Lee Grant-Brooks, Jr. Sahana Vijaya Prasad Eduardo Vinocur Rae Vinson Joy V-K Daniel Vogel

Carol Wacaser Stephen Wade Richard Wagener Samuel Waldman

Kathryn Vogel

Ben Towne

Waldron Family Aric Walker Derrick Wallace A.G. Walling Katlin Walsh • Frank & Marguerite Walter

Marco Walther

Gerald & Veronika Walton

Jian Wang Min Wang Joanne Ward Bill Warhul Christopher Warner Colin Warnes Nathan Warren Patty Warren Susan Warren Philip Wasserman

Sho Watanabe Keoni Wats Kevin R. Watson Jackson Weaver S.M. Weaver

Jordan Webb Ralph Webb Stephanie Webb Andreas Weber

Annette Webster Jean-Ann Webster

In memory of Josh Polehna Jeffrey & Celeste Wecker

Sven Wehrmann Stanley Weiss Bruce Wells C.A. Wenger David Wert Kristen Wertz Todd West

William F. Westadt Heather Weston Robert-Alan Wey

Janet Whatmough William Wheeler

Stephen Whipple

Lawrence Whisenant .

James White Justin White

Matt Whitehouse . Jordan Whitfield

Sam Whiting Jasmine Widgery •

Austin Wiggins Peter Wilczynski

In honor of Vince Wilczynski

Zack Wilk Lori Williams Todd A. Williams Family Foundation

Robin Willick • Aaron Wills John Willis

Debra Wilmington Madeline Wilson Matt Wilson S.W. Wilson

Andrea Winegar

In memory of Dr. Woodie Flowers

David Winegar Rohini Winters

In honor of Dr. Woodie Flowers

Michelle Witte Gregory Wlosinski

In memory of Henry Karas

Jill Wohl Jerry Wohletz Jennifer Wolfe Lisa Wolfe Bohdan Wolosiuk

John Wong Pamela Wong • Joel Wood

In honor of Steve Carnesi

Leonard Wood Richard Wood Jonathan Woods

Benjamin Worthington

Bill Wright Jim Wright Rodney Wright Timothy Wright Rebecca Wunder Jessica Xiang Sathva Yalvigi Mark Yamarone • Sijun Yang

Sarah Yates Steve Yeager & Samuel Sampson

Midori Yenari In memory of Dr. Woodie Flowers

Leo Yon

In memory of Dr. Woodie Flowers JoAnn York

Abigail Young • Ben Young Kathryn Youngberg William Yoxall Nina Yu

Errol Yudelman Zachary Zagorski • William Zanone C.S. Zartman Patrick Zelinski

John Zeman

Richard Zhang Tao Zheng Yuchena Zhou Neil Zimmerman Marc Ziss

Kenneth Zolot In honor of John Abele Gouray Zutshi Ellen Zwiefel Eric Zygmont

# DR. BART KAMEN MEMORIAL FIRST **SCHOLARSHIP**

**FUND CONTRIBUTORS** 

Continued special thanks to the Argosy Foundation and the DEKA Foundation

# 2020 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) Triangle Fraternity

Yale Science & Engineering Alumni

# FIRST | FGO **LEAGUF SPONSORS**

2019-2020 SEASON

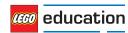
Founding Partner



**Global Sponsors** 







# The **LEGO** Foundation





# FIRST LEGO League **Global Innovation Award**

**Presenting Sponsor** The Walt Disney Company

Partners in Innovation Booz Allen Hamilton, Inc.

LEGO® Education

**Global Innovation Collaborators** Collins Aerospace

John Deere

Qualcomm Incorporated

In Cooperation with United States Patent and Trademark Office

### **Top Team Sponsors**

(10 or more teams in 2019-2020) Sponsors in this section are listed in descending order starting with the sponsor of the highest number of teams.

#### FIRST LEGO League Explore

DoD STEM

John Deere

The Boeing Company Tennessee Valley Authority Dow

TE Connectivity

Qualcomm Incorporated

Rockwell Automation, Inc. FIRST in NH

Pratt & Whitney

Apple

Collins Aerospace

# FIRST LEGO League Challenge

DoD STEM

John Deere

The Boeing Company

Tennessee Valley Authority

Amazon

Caterpillar, Inc.

Rockwell Automation, Inc.

Dow

Qualcomm Incorporated

Google

Bosch Collins Aerospace

TE Connectivity

Leidos, Inc.

The Lego Foundation

**Bayer Corporation** Apple

Tennessee Valley Robotics

Pratt & Whitney

**BAE Systems** 

ABB Inc.

Bechtel Group Foundation

Raytheon Technologies

Motorola Solutions Foundation

Booz Allen Hamilton, Inc.

Picatinny Arsenal

Schneider Electric North America Foundation

National Aeronautics and Space Administration (NASA)

# FIRST TECH **CHALLENGF SPONSORS**

2019-2020 SEASON

Season Presenting Sponsor



Official Program Sponsor



Official IoT. CAD & Collaboration Software Sponsor



**Top Team Sponsors** 

(10 or more teams in 2019-2020)

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

Arconic Foundation DoD STEM

Lockheed Martin Corporation

John Deere

The Boeing Company

Ford Motor Company **Bayer Corporation** 

Collins Aerospace

Amazon

Google

Leidos, Inc.

Dow

TE Connectivity PTC, Inc.

Caterpillar, Inc.

Rockwell Automation, Inc.

Oualcomm Incorporated

Tennessee Valley Authority Motorola Solutions Foundation

Apple

Schneider Electric North America Foundation

Picatinny Arsenal

ABB Inc.

Nextera Energy Foundation

Bosch

Intuitive Foundation

BAE Systems

Raytheon Technologies

Bechtel Group Foundation

# FIRST ROBOTICS COMPETITION **SPONSORS**

# 2020 SEASON

#### Suppliers

Crown Suppliers The 3M Company Analog Devices Inc. AndyMark, Inc. Autodesk, Inc. Automation Direct

Bishop-Wisecarver Corporation

BURNDY® LLC Datto, Inc. FedEx Corporation FedEx Freiaht Gates Corporation iaus Inc.

Innovation First International

Inventables NI PTC, Inc. **RFV Robotics** Rockwell Automation, Inc. DS SolidWorks Corporation Underwriters Laboratories, Inc. (UL)

Diamond Suppliers Digi-Key Electronics

The Walt Disney Company

Festo

Worcester Polytechnic Institute

**Gold Suppliers** Armabot AWS Educate CTR Flectronics DriveWorks Ltd. Loctite

Novelis, Inc. Parker Hannifin Corporation Ruland Manufacturing

Siemens Swyft Robotics

Vulcan Spring & Manufacturing Co.

Wolfram Research

Silver Suppliers Altium Inc.

Anderson Power Products

BaneBots, LLC Beldin, Inc.

Bimba Manufacturing Clippard Instrument Laboratory **CUI Devices** 

ECIA - Electronic Components Industry Association HavdonKerk Motion Solutions Hydro Extrusion North America IMI Precision Engineering Johnson Electric MaxBotix Inc.

MK Battery Molex Nason Next Gen Robots LLC

Robo Promo The Siemon Company Snap Action, Inc. TE Connectivity

**Bronze Suppliers** Charmed Labs

Cypress Fluke Corporation John Deere Kauai Labs, Inc. Kettering University Mastercam

Piedmont Plastics, Inc. Robot Extrusions SolidProfessor Sports Awards

MISUMI

Sullins Connector Solutions Triangle Manufacturing Company

WestCoast Products

Xilinx

Other Contributors CollabNet. Inc. Diamond Technologies DNR Laboratories, LLC Faton's Bussmann Division

EPEC LLC **HPE** Automation ScreenSteps Tableau Software Techplex Labs TurnOne Graphics LLC **Top Team Sponsors** 

(20 or more teams in 2020) Sponsors in this section are listed in descending order starting with the sponsor of the highest number of teams.

The Argosy Foundation The Boeing Company DoD STEM

National Aeronautics and Space Administration (NASA) Lockheed Martin Corporation

Intuitive Foundation

Google

Florida Atlantic University General Motors Company **Bayer Corporation** BAE Systems Comcast NBCUniversal

Pratt & Whitney Rockwell Automation, Inc.

Ford Motor Company Medtronic, Inc. The 3M Company FIRST Northern California Collins Aerospace Leidos, Inc. Qualcomm Incorporated

Raytheon Technologies Picatinny Arsenal

Bosch Altice USA John Deere Apple Dow

TE Connectivity ABB Inc. Abbott Fund Anonymous Pentair Foundation

Motorola Solutions Foundation Schneider Electric North America Foundation Bechtel Group Foundation

PTC. Inc. Caterpillar, Inc. Siemens Briggs & Stratton Booz Allen Hamilton, Inc. United Therapeutics Corporation

NOKIA Bell Labs **Duke Energy** 

GE Energy (Power and Water)

Bloombera L.P.

FIRST thanks our supporters and has made every effort to ensure complete and accurate listings. If we've made an error, please accept our sincere apology and let us know at recognition@firstinspires.org.

# FIRST MISSION SUPPORT SPONSORS

Thank you to our supporters who converted their FIRST Championship and Regional support to FIRST Mission support.

# Qualcom





























Abbott Fund **BAE Systems** 

**BOSCH** Gene Haas Foundation Hilton

Johnson Controls, Inc. Sony Corporation





# **CHAMPION**

Jackie and Mike Bezos Bloomberg Philanthropies

Jaqui Safra and

Jean Doumanian

John and Laura Overdeck



# **INNOVATOR**

Michael Dubno

# **MAKER**











Pershing Square Foundation

# **CATALYST**

Armen Avanessians
Becton Dickinson
Donald and Susan Bossi
Citco
The Coca-Cola Company

Larry and Tami Cohen J.P. Morgan Royalty Pharma Karl Sprules and Adam Salem

Corporation
United Therapeutics
Corporation
Allen Weinberg

Judy and Josh Weston

**Tudor Investment** 

# **HERO**

Johnson Research and Development

# **ENTHUSIAST**

Amy Binder
Carol Cone
Cherrie Fleisher-Strauss
Dr. Laurie Leshin

Scott McKay Switch TE Connectivity Thompson Coburn LLP

James and Nancy Utaski Frrol Yudelman



# FIRST **SCHOLARSHIP** PROGRAM

We partner with colleges, universities, technical schools, and other organizations that make available scholarship opportunities specifically for *FIRST* participants and alumni. In FY2020, more than 200 *FIRST* Scholarship Providers made available over 3,000 opportunities totaling over \$80 million. Learn more at <a href="https://www.firstinspires.org/scholarships">www.firstinspires.org/scholarships</a>.

Rutgers University

## THANK YOU TO THE FOLLOWING ORGANIZATIONS FOR SUPPORTING FIRST ALUMNI IN CONTINUING THEIR EDUCATIONS:

#### PLATINUM PROVIDER (\$500,000+)

Bahcesehir University Bahcesehir University College of Medicine • Boston University Capitol Technology University Clarkson University Florida Institute of Technology Illinois Institute of Technology Instituto Tecnológico Autónomo de México (ITĂM) Johnson & Wales University Kettering University Lawrence Technological University Massachusetts Institute of Technology (MIT) Milwaukee School of Engineering Olin College of Engineering (Franklin W.) Rensselaer Polytechnic Institute Rochester Institute of Technology Stevens Institute of Technology Syracuse University Tulane University

### GOLD PROVIDER (\$100.000 - \$499.999)

University of Advancing Technology

Worcester Polytechnic Institute

Bucknell University
Central Michigan University
College of the Atlantic
Dr. Bart Kamen Memorial
FIRST Scholarship Fund
ECPI University
Embry-Riddle Aeronautical
University – AZ

Universidad Panamericana

University of Rochester

Webb Institute

Yale University

Embry-Riddle Aeronautical University – FL George Washington University . Hampshire College Hudson Valley Community College Indiana University Bloomington Jacksonville University Kenzie Academy Inc. McMaster University Merrimack College Michigan Technological University North Central College Northeastern University Quinnipiac University Rose-Hulman Institute of Technology Trine University University of Cincinnati University of Evansville University of Missouri - Kansas City Virginia Commonwealth University (VCU)

# SILVER PROVIDER (\$40,000 - \$99,999) Arizona State University

Western New England University

BAE Systems
Bay Atlantic University •
Bradley University
Bosch •
Case Western Reserve University
College for Creative Studies
Grand Valley State University
Hallmark University
Hanover College •
Harvey Mudd College
Macquarie University
Marquette University
McKendree University

ASME Auxiliary Inc.

New England College Northwest Nazarene University Pacific University Raytheon Company Rice University Roanoke College • St. Clair College Seattle Pacific University SUNY Polytechnic Institute Technology de Monterrey University of Detroit Mercy University of Hartford University of Minnesota Twin Cities University of New Orleans University of Northern Iowa University of Portland University of Southern California University of Texas at Austin

Missouri University of Science

National Fluid Power Association

& Technology

## BRONZE PROVIDER (\$20,000 - \$39,999) Adelphi University

Valparaiso University •

Campbell University

Canadore College
Dunwoody College of Technology
Fairfield University
Florida Power & Light Company
Hofstra University
Make School
Microchip Technology, Inc. 
Nipissing University
Northwestern University
Nuts, Bolts and Thingamajigs
Foundation
Ohio State University
Oklahoma State University

Saint Martin's University
Texas Tech University
University of Alaska – Anchorage
University of Maryland College Park
University of Massachusetts
Lowell Engineering
University of New Hampshire
Manchester
University of North Alabama
University of Tennessee Knoxville
Vermont Technical College
Whitworth University
Xavier University

Saginaw Valley State University

# BRASS PROVIDER (UP TO \$19,999) Anoka Technical College

Bethany Lutheran College

Boise State University

Cleveland State University The College of St. Scholastica Colorado Mesa University . Columbia University DePaul University East Carolina University Eastern Michigan University Elbit Systems Electronic Components Industry Association (ECIA) Ferris State University FIRST Alumni and Mentors Network at Michigan (FAMNM) • FIRST Chesapeake FIRST NH FIRST Robotics Canada . Gates Corporation George Fox University Georgia Institute of Technology

Indiana University - Purdue University Indianapolis (IUPUI) Iowa State University Itasca Community College Kansas State University Lake Superior State University Louisiana State University Maryville University Mercer University Mineral Area College Minerva Schools at KGI . Minnesota State College Southeast Molloy College Murray State University New Horizons Computer Learning Centers New York Institute of Technology North Carolina Agricultural and Technical University North Carolina State University NYU Tandon School of Engineering The Ohio State University • Oral Roberts University Oregon Institute of Technology Pace University Pennsylvania State University Phil Clancy Memorial Scholarship Plymouth State University Oueen's University The Rainbow STEM Alliance • Robert Morris University St. Louis Community College ServoCity SME Education Foundation Society for the Advancement of Young Scientists (SAY)

Society of Women Engineers (SWE)

Grand Canyon University

Green Girls STEM Foundation

South Dakota School of Mines and Technology Southeast Missouri State University Southwestern Michigan College Sweet Briar College Tallo • Triangle Education Foundation • University of Akron • University of Central Missouri University of Connecticut University of Dayton University of Illinois at Urbana - Champaign University of Kansas University of Massachusetts Amherst University of Mississippi University of Missouri University of Nevada Las Vegas University of Ontario Institute of Technology (UOIT) University of Southern Maine University of Texas Arlington University of Texas at San Antonio University of Waterloo University of Windsor University of Wisconsin, Madison University of Wisconsin Platteville Viterbo University Weber State University Western Carolina University Western Michigan University . Western Technical College Western University Winona State University York University

New Provider

"After we became a Scholarship Provider, a group of FIRST alumni formed a new student club on campus – FIRST at Rice. The club is looking to build on the university's longstanding commitment to EDI by focusing their activities on equitable engagement of students from traditionally marginalized identities. We look forward to our continued partnership with FIRST to create pathways for more students from diverse backgrounds to pursue STEM degrees and careers."

-Yvette E. Pearson, Ph.D., Associate Dean of Engineering, Rice University

# **PROGRAM DELIVERY PARTNERS**

FIRST is the vehicle by which young people of all backgrounds can discover a love of learning, hone their creativity, and unlock their full, amazing potential. Our Program Delivery Partners work tirelessly to bring programs that keep STEM exciting and accessible to communities and classrooms around the world. The following key organizations in the field implement FIRST programs in their respective regions.

AI BANIA EDUAct •

AI GFRIA Robot Éducatif Algérie\*

**ANDORRA** Fundación Scientia •

**ARGENTINA** Playbots S.A.\*

**AUSTRALIA** Macquarie University ••••

**AUSTRIA** HANDS on TECHNOLOGY e V ●●

A7FRBAIJAN Mars Academy\* ••

BELGIUM Stichting Techniekpromotie ••

BOTSWANA Tshwane University of Technology/FIRST South Africa •

BRA7II Positivo • SESI ••

CANADA

**ALBERTA** FIRST Robotics Society ••••

**BRITISH COLUMBIA** FIRST Robotics British Columbia ••••

**NEW BRUNSWICK** Rothesay Netherwood School

**NEWFOUNDLAND AND LABRADOR** FIRST Robotics Newfoundland and Labrador ••

**NOVA SCOTIA** Acadia University •

**ONTARIO** FIRST Robotics Canada ••••

**OUÉBEC** Robotique FIRST Québec •••

CHII F Fundación SparkTalents ••

**CHINA** Semia Limited • CUYRA •

CHINESE TAIPEL Kids Kingdom, Inc.

COLOMBIA Uniminuto ••

COSTA RICA Fundación STEAM ••

CROATIA Zavod Super Glavce • **CYPRUS** EDUAct ••

CZECH REPUBLIC Sdružení pracovníků DDM v CR •

**DENMARK** FIRST Scandinavia ••

**DOMINICAN** REPUBLIC

Fundación para el Desarollo de las Ciencias y la Tecnología ••

**FCUADOR** Centro Campus\* ••

**EGYPT** Techno Future Egypt •••

**FSTONIA** MTÜ Robootika ••

**ESWATINI** Tshwane University of Technology/FIRST South Africa • •

FAROE ISLANDS FIRST Scandinavia

FINI AND Robotiikka •

**FRANCE** West Side Robot Lab Educabot •

**GFRMANY** HANDS on TECHNOLOGY e.V. ••

GHANA CODFRINA •

**GREECE** EDUAct ••

GUATEMALA Computation Avanzada S.A.\* ••

HONDURAS Honduras STEM Foundation\* ●

HONG KONG, CHINA Semia Limited •••

HUNGARY HANDS on TECHNOLOGY e.V. ••

ICFI AND FIRST LEGO League á Íslandi •

INDIA InfinityX •

INDIA - NORTH India STEM Foundation ••

INDIA - SOUTH Edutech India Private Ltd. ••

INDIA - WEST Duck Learning ••

INDONESIA PT Edukasi Kreatifitas Anak/ CK Education ••

\*Local Partner Representative

• FIRST LEGO League Explore • FIRST LEGO League Challenge • FIRST Tech Challenge • FIRST Robotics Competition





# THANK YOU, FIRST **VOLUNTEERS!**

For over 30 years. FIRST volunteers have united to build tomorrow by encouraging millions of young people to embrace innovation and collaboration. Our hundreds of thousands of volunteers are part of an international support system we've built to inspire a generation of global citizens to create a strong, sustainable "force for change."

> We are proud to honor the 2020 FIRST Volunteer of the Year Award recipients:

# FIRST LEGO LEAGUE EXPLORE

Cindy Nader Milford, MI

**Brian Bover** Chichester, NH

#### FIRST LEGO LEAGUE CHALLENGE

Desh Bagley Riverview, FL

Sam Last Cary, NC

# FIRST TECH CHALLENGE

Phil Malone McHenry, MD

Kevin Thorp North Charleston, SC

# FIRST ROBOTICS COMPETITION

Sarah Plemmons Orlando FI

Laurie Shimizu Minneapolis, MN

# IRFI AND

The Institution of Engineering and Technology (The IET) •• FIRST Tech Challenge UK •

# ISRAFI

FIRST Israel & Technion ••••

# ITALY

Fondazione Museo Civico di Rovereto ••

# JAMAICA

Jamaica College Foundation •

# JAPAN

FIRST Japan ••

# JORDAN

Jubilee Center for Excellence in Education ••

# KA7AKHSTAN

**USTEM Robotics** Kazakhstan/Central Asia Robotics Development Foundation\* • • •

# **KENYA** CODFRINA ••

I ATVIA MTÜ Robootika ••

# LEBANON

**Education and Technology** Center ••

# LFS0TH0

Tshwane University of Technology/FIRST South Africa

# LITHUANIA

Robotikos Akademija ••

# LUXEMBOURG

Stichting Techniekpromotie ••

# MAI AYSIA

Sashadi Sdn Bhd ••

# MÉXICO

RobotiX ••

Explora, Descubre y Crea, A.C.

# MOLDOVA

MTÜ Rohootika

# MONGOLIA

Mongolia Robot Education Association •

# MONTENEGRO

Young Inventors of Montenegro •

# MOROCCO

Play Academy ••

# NFTHERI ANDS

Stichting Techniekpromotie •• STEAMUp •

# NFW 7FALAND

FIRST New Zealand Trust ••

# NIGFRIA CODERINA •••

NORWAY FIRST Scandinavia ••

# OMAN ATLAB •

**PAKISTAN** STARfALL Foundation ••

# PARAGUAY

Espacios de Ser S.A.\*

# **PFRII**

Wernher Von Braun IEP SA • Educabot •

# PHILIPPINES

FELTA Multi-Media, Inc. ••

# POI AND

ALE Nauczanie Foundation ••

# PORTUGAL

Fvoluir21 ••

# OATAR ATLAB ••

# REPUBLIC OF KOREA

FEST (Federation for Education of Creative Science and Technology) •••

# REPUBLIC OF NORTHERN MACEDONIA

FDUAct ••

# ROMANIA CRESTEM ••

Natie Prin Educatie Association •

# RUSSIA

Robotics Laboratory "Future Engineers" • • •

# SAUDI ARABIA

ATI AB

# SINGAPORE Duck Learning ••

# SLOVAKIA

FIRST LEGO League Slovensko, o.z.

# **SLOVENIA**

Zavod Super Glavce ••

# SOUTH AFRICA

Tshwane University of Technology/FIRST South Africa

# SPAIN

Fundación Scientia •••

# **SWFDFN**

FIRST Scandinavia

\*Local Partner Representative

# SWIT7FRI AND

HANDS on TECHNOLOGY e V ••

# THAIL AND GAMMACO ••

The Prince Royal's College

# TRINIDAD AND **TOBAGO**

NIHERST •

# TUNISIA

Edurobot Tunisia ••

# TURKEY

Bilim Kahramanlari Bulusuyor (BKD) •• Fikret Yüksel Foundation

# UKRAINF

Innovative Education Solutions ••

# UNITED ARAB **EMIRATES**

ATI AR ••

ATLAB and AUS •

# UNITED KINGDOM

The Institution of Engineering and Technology (The IET) •• FIRST Tech Challenge UK •

# UNITED STATES

# ADVENTIST ROBOTICS LEAGUE

Adventist Robotics League ••

## **ALABAMA**

FIRST in Alabama

#### **ALASKA**

Juneau Economic Development Council ••• FIRST Washington •

### **ARIZONA**

Arizona State University •• Coconuts Robotics •

# **ARKANSAS**

Science and Technology Group Inc.

# CALIFORNIA - CENTRAL

Clovis Unified School District ••

# **CALIFORNIA - LOS ANGELES**

Alt-NEXT • LA Robotics

### **CALIFORNIA - NORTHERN**

Playing at Learning •••

### CALIFORNIA - SAN DIEGO

Matt Nilsen

# **CALIFORNIA - SOUTHERN**

Southern California Robotics League ••

#### **COLORADO**

Colorado FIRST •••

#### CONNECTICUT

NF FIRST ••••

#### DELAWARE

Delaware State University •• First State Robotics • FIRST Mid-Atlantic •

# DISTRICT OF COLUMBIA

FIRST Chesapeake •• James Madison University •• USRA ••

# **FLORIDA**

Tampa Bay Robotics •

# FLORIDA - CENTRAL

Renaissance Jax. Inc. ••

# FLORIDA - NORTHEAST

Renaissance Jax, Inc.

### FLORIDA - NORTHWEST

DEFENSEWERX Inc. ••

# FLORIDA - SOUTH

Green Mouse Academy ••

# FLORIDA - WEST COAST

Hillsborough Community College ••

# **GEORGIA**

Georgia FIRST ••• Georgia Institute of Technology •

# GUAM

SIFA ••

#### HAWAII

Hawaii FIRST Robotics •••

#### **IDAHO**

Regents of the University of Idaho •••

### ILLINOIS

Illinois FIRST Robotics

## INDIANA

Indiana FIRST, Inc. Purdue Fort Wayne (PFW) •

Iowa State University •• University of Iowa

# KANSAS - CENTRAL

Oklahoma Science and Engineering Foundation (OKSEF) •

# KANSAS - KANSAS CITY REGION

KC STEM Alliance

# KANSAS - SOUTHWEST

Mid-America Air Museum/ City of Liberal ••

# **KENTUCKY**

Northern Kentucky University ••

FTC in Kentucky, Inc. •

# **LOUISIANA**

FIRST Louisiana-Mississippi •••

# MAINE

Robotics Institute of Maine • NF FIRST •

# MARYLAND

FIRST Chesapeake •• University of Maryland Baltimore County • USRA ••

#### **MASSACHUSETTS**

NF FIRST • •

WPI Robotics Resource Center •

MIT Lincoln Laboratory •

#### MICHIGAN

FIRST in Michigan ••••

# MINNESOTA

High Tech Kids •••

# **MISSISSIPPI**

Robotics Alliance of Mississippi ••

Center for Mathematics and Science Education/The University of Mississippi •

# MISSOURI

Michael Lucido • Tom McGovern Laura Roth

#### MISSOURI - CENTRAL

Camdenton R-III School District ••

#### MISSOURI - EAST

St. Louis Community College - Florissant Valley ••

#### MONTANA

College of Engineering, Montana State University • Ed Huth •

# NATIONAL SOCIETY OF **BLACK ENGINEERS**

National Society of Black Engineers ••

# **NEBRASKA**

University of Nebraska - Lincoln 4-H Youth Development ••

# NEVADA

FIRST Nevada

### **NEW HAMPSHIRE**

NE FIRST ••••

#### **NEW JERSEY**

Vince Frascella Pat Frascella

FIRST Mid-Atlantic •

#### **NEW JERSEY - NORTH**

MOREA - Mount Olive Robotics Education Association ••

#### NEW JERSEY - SOUTH

Rowan University ••

#### **NEW MEXICO**

Land of Enchantment Robotics •••

# FIRST in Texas • **NEW YORK - EXCELSIOR**

SUNY Poly Office of Continuing Professional Education

#### **NEW YORK - FINGER LAKES**

University of Rochester ••

# **NEW YORK - LONG ISLAND**

School-Business Partnership of Long Island, Inc.

# **NEW YORK - MID-HUDSON VALLEY**

Hudson Valley FIRST LEGO League ••

# **NEW YORK - NEW YORK CITY**

NYC FIRST •••

# **NEW YORK - POTSDAM**

Clarkson University •

# **NORTH CAROLINA**

North Carolina A&T State University ••

FIRST North Carolina ••

# **NORTH DAKOTA**

Bismarck Career Academy • University of North Dakota, School of Engineering & Mines ••

# OHIO

WPAFB Educational Outreach •••

\*Local Partner Representative

• FIRST LEGO League Explore • FIRST LEGO League Challenge • FIRST Tech Challenge • FIRST Robotics Competition









#### **OKLAHOMA**

Oklahoma Science and **Engineering Foundation** (OKSEF) ••

Southwest Oklahoma State University •

#### OREGON

Oregon Robotics Tournament & Outreach Program ••• FIRST Washington •

#### **PENNSYLVANIA**

Pennsylvania FIRST •

# PENNSYLVANIA - CENTRAL

Appalachia Intermediate Unit 8 ••

#### PENNSYLVANIA - EAST

FIRST Mid-Atlantic •• Capital Intermediate Unit 15 •

# **EASTERN PENNSYLVANIA**

FIRST Mid-Atlantic •

# **PENNSYLVANIA - NORTHWEST**

Penn State Erie. The Behrend College •

#### **PENNSYLVANIA - SOUTHWEST**

BrainSTEM Learning ••

#### **PUERTO RICO**

Eureka STEM ••

#### **RHODE ISLAND**

NE FIRST •

New England Institute of Technology •

Rhode Island School of the Future ••

# **SOUTH CAROLINA**

South Carolina FIRST LEGO League and Robotics Education, Inc.

South Carolina Robotics Education Foundation •

## **SOUTH DAKOTA**

EmBe ••

### **TENNESSEE**

Tennessee FIRST •

## TENNESSEE - CHATTANOOGA (NORTH GEORGIA)

Greater Chattanooga Robotics ••

#### TENNESSEE - EAST

Tennessee Tech University ••

### TENNESSEE - WEST

University of Memphis and Herff College of Engineering •

The Children's Museum of Memphis •

## **TEXAS**

FIRST in Texas •

# TEXAS - CENTRAL

FIRST in Texas

# **TEXAS - EAST**

FIRST in Texas ••

San Jacinto College •

#### TEXAS - NORTH

DFW Technology and Education Council •

Perot Museum •

FIRST in Texas ••

University of Texas at Dallas •

# **TEXAS - PANHANDLE**

FIRST in Texas ••

## **TEXAS - SOUTH**

FIRST in Texas

#### **TEXAS - WEST**

The University of Texas at El Paso - College of Engineering ••

FIRST in Texas •

# UTAH

Weber State University, College of Applied Science and Technology •••

# VERMONT

NE FIRST •

Norwich University •

University of Vermont •

#### VIRGINIA

FIRST Chesapeake •• James Madison University ••

# WASHINGTON

FIRST Washington ••••

#### **WEST VIRGINIA**

Fairmont State University •••

# WISCONSIN

BadgerBOTS Robotics Corporation ••

Milwaukee School of Engineering •

# WYOMING

Natrona County School District •••

URUGUAY

Plan Ceibal ••

VIETNAM Viet Tinh Anh JSC ••

# **7IMBABWF**

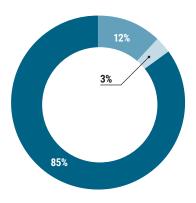
Tshwane University of Technology/FIRST South Africa •



# **FINANCIALS**

Before the COVID-19 pandemic, FIRST was on track for another year of programmatic growth and financial stability. While we did serve more participants than ever before in fiscal year 2020, the pandemic caused the suspension of our season and cancellation of FIRST Championship, which significantly decreased our revenues, leading to an operating deficit for the first time in over 17 years.

In the spring, we decreased expenses significantly and many FIRST contributors released funds from restrictions, helping to mitigate some of the financial impacts of the pandemic. However, we expect even greater financial challenges in fiscal year 2021 and look forward to a recovery afterward.



- TEAM SERVICES & GROWTH OF PROGRAMS
- GENERAL & ADMINISTRATIVE EXPENSES
- FUNDRAISING COSTS

As noted in the pie chart above, and in keeping with longtime practices, FIRST continues to apply the maximum percentage of funds possible to directly benefit FIRST participants. Within the modest G&A expenses are ongoing investments in our Youth Protection Program, Program Evaluations, Equity, Diversity & Inclusion Program, and Education Initiative.



CHARITY FIRST achieved its 15th 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% of the U.S. charities annually evaluated by Charity Navigator.

STATEMENTS OF ACTIVITIES	JUNE 30, 2020	JUNE 30, 2019
Revenues and other support:		
Program registration fees	15,091,513	32,718,347
Contributions and grants	11,896,431	18,469,938
Other income	1,017,589	2,154,040
Special event income, net of expenses of \$406,309 in 2020 and \$396,560 in 2019	424,959	496,506
Net assets released from restrictions	39,856,978	30,951,062
Total revenues (losses) and other support	\$ 68,287,470	\$ 84,789,893
Expenses:		
FIRST Program Expenses	57,950,115	71,557,755
Net cost of building space occupied by unrelated not-for-profit organizations	320,651	295,730
General, administrative, and supporting services	8,330,803	8,990,597
Fundraising and Development	2,400,224	2,387,833
Total expenses	\$ 69,001,793	\$ 83,231,915
Operating surplus (deficit)	(714,323)	1,557,978

STATEMENTS OF FINANCIAL POSITION	JUNE 30, 2020	JUNE 30, 2019
Assets:		
Cash and cash equivalents*	42,609,063	27,748,958
Short-term investments*	8,250,000	12,000,000
Pledges, receivables, program supply inventory, and other assets	15,932,819	15,498,863
Net property, plant, and equipment	5,221,972	5,176,264
Total assets, end of year	\$ 72,013,854	\$ 60,424,085
Liabilities and net assets:		
Total liabilities, end of year	\$ 9,133,142	\$ 7,653,948
Net assets:		
Unrestricted	28,677,577	29,391,900
Temporarily restricted	34,203,135	23,378,237
Total net assets, end of year	\$ 62,880,712	\$ 52,770,137
Total liabilities and net assets, end of year	\$ 72,013,854	\$ 60,424,085

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 increase in restricted funds includes pre-payments of future restricted sponsorships from certain grantors. The total liquid assets balance available to FIRST, for operating purposes, at June 30, 2020, is equivalent to approximately seven 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 our website at www.firstinspires.org under "About/Annual Report & Financials."

# LEADERSHIP

#### **BOARD OF DIRECTORS**

Robert K. Ortberg CO-CHAIR Special Advisor to the Office of the CEO Raytheon Technologies

Robert M. Tuttle co-chair General Partner 1848 Associates

Dr. Laurie Leshin VICE CHAIR

President

Worcester Polytechnic Institute

Dr. Vincent Wilczynski TREASURER
Deputy Dean, Yale School of Engineering & Applied
Science & James S. Tyler Director of the Center for
Engineering Innovation & Design
Yale University

Lawrence Cohen SECRETARY

President

FIRST®

Dean Kamen FOUNDER

President

DEKA Research & Development Corporation

John E. Abele Founding Chairman, Retired Boston Scientific Corporation

Ursula Burns Chairman & Chief Executive Officer, Retired Xerox

**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 & Chief Executive Officer
Society of Women Engineers

Dr. Paul E. Jacobs Chairman & Chief Executive Officer XCOM Labs, Inc.

Lonnie Johnson
President & Founder
Johnson Research & Development Corporation

Scott McKay Former Executive Vice President of Business & Product Strategy Genworth Financial Blake Moret Chairman & Chief Executive Officer Rockwell Automation. Inc.

Dennis A. Muilenburg
Former President & Chief Executive Officer
The Boeing Company

David Siegel Co-Chairman Two Sigma

Raj Subramaniam
President & Chief Operating Officer
FedEx Corporation

# **HONORARY DIRECTORS**

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 & 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 (1943-2019)
EAB CHAIR EMERITUS & DISTINGUISHED ADVISOR

Kevin Ross CO-CHAIR

Founder FIRST Washington

Heidi Sipe CO-CHAIR Superintendent Umatilla Public Schools

Charlie Ackerman Senior Vice President – Human Resources North America

Robert Bosch LLC

Ray Almgren Chief Operating Officer Swift Sensors, Inc.

Gail Alpert President FIRST in Michigan

Susie Armstrong
Senior Vice President of Engineering
Qualcomm

Mark Breadner
President
FIRST Robotics Canada

Cosema (Connie) Crawford, P.E.

Director of P3 Rail
Itinera Infrastructures and Concessions

Michael Dubno Head of Global Markets & Research Technology, Retired

Greg Hale
Vice President & Chief Safety Officer

Bank of America Merrill Lynch

Walt Disney Parks & Resorts

Luan Heimlich

Manager, Technology-based Outreach, Dept. of Engineering Macquarie University James E. Heppelmann
President & Chief Executive Officer
PTC

Marc Hodosh Co-Host & Founder LIFE ITSELF

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

Cate Prescott
Global Vice President of Human Resources
NI

Nancy Quan Senior Vice President & Chief Technical Officer The Coca-Cola Company

Dr. Melissa Smith, Ph.D. Senior User Experience Researcher Google

#### FIRST LEADERSHIP TEAM

Lawrence Cohen
President

Erica Fessia Vice President, Global Field Operations

Mark Giordono Vice President, Development

Danielle Pliska Vice President, Finance

Chris Rake Vice President, Programs

Listing current as of October 1, 2020 2020 Annual Impact Report (4

# FIRST® IS A ROBOTICS COMMUNITY PREPARING YOUNG PEOPLE FOR THE FUTURE.

# 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, FIRST Founder

# 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.

# IMPACT

For three decades, FIRST participants have developed self-confidence in STEM, meaningful friendships, and valuable, real-world skills that open pathways and help young people build a better future. FIRST programs are proven to encourage students to pursue education and careers in STEM-related fields, but they also inspire kids to become leaders and innovators in any industry.



200 Bedford Street, Manchester, NH 03101 800.871.8326 www.firstinspires.org

FIRST, the FIRST logo, FIRST Robotics Competition, FIRST Tech Challenge, INFINITE RECHARGE, ROVER RUCKUS, SKYSTONE, Coopertition, and Gracious Professionalism are trademarks of For Inspiration and Recognition of Science and Technology (FIRST). LEGO, MINDSTORMS, and DUPLO are registered trademarks of the LEGO Group. FIRST LEGO League, FIRST and the LEGO Group. SPIKE™ Prime is a trademark of LEGO Education. All other trademarks are the property of their respective owners. ©2020 FIRST. ⊚ and ™ Lucasfilm Ltd. All rights reserved. FI088