

12,000+ Students Bring Custom Robots to Ultimate Sport-for-the-Mind Showdown

FIRST



MANCHESTER, NH — More than 12,000 students from around the globe traveled to St. Louis, MO, to put their engineering skills to the test at the annual *FIRST* (For Inspiration and Recognition of Science and Technology) Championship, held at the Edward Jones Dome a the week of the week of April 26, 2014.

The three-day event came down to a heart-pounding conclusion Saturday night in front of a roaring crowd of 20,000 when four teams from San Jose, CA, Bloomfield Hills, MI; Dallas, TX; and Holland, MI, won the coveted [FIRST Robotics Competition](#) [1] (FRC) Championship Winning Alliance. In this year's game, AERIAL ASSIST,FRC teams took to the field, where competing Alliances scored points by throwing balls over a truss, catching balls, and putting as many balls in goals as possible. The more Alliances worked together to score, the more points their Alliance received. This year, 68,175 students on 2,727 FRC teams in 17 countries participated in 98 Regional and District competitions.

In all, more than 12,000 students, ages six to 18, participated in the Championship events.

"This country celebrates sports and entertainment, but wealth is not created by these ventures; it is the result," said *FIRST* Founder, Dean Kamen. "It's a passion for science, technology, and innovation that have allowed these industries to prosper. Take what you have learned here and solve the world's problems."

"There's nowhere else I'd rather be, but here in St. Louis with you; the future," STEM education advocate, will.i.am, said to a crowd of 20,000 people. "If you want a peek at the future, you come here to the *FIRST* Championship. And when I say

future, I mean future leaders, future inventors, and future problem solvers.”

“I’ve been impressed and inspired by you all,” said Amy Kule, Group Vice President, Macy’s Parade and Entertainment Group. “Continue to think bigger, think smarter, and save the world.”

Several other U.S. and international *FIRST* student robotics teams earned honors for design excellence, competitive play, research, business plans, website design, teamwork, and partnerships. A not-for-profit organization founded in 1989 by inventor Dean Kamen, *FIRST* inspires young people’s interest and participation in science and technology.

More than 600 teams from 38 countries competed in the three levels of *FIRST*: [FIRSTLEGO League](#) [2] (FLL, grades 4 to 8, 9 to 14-year-olds in the U.S, Canada, and Mexico; 9 to 16-year-olds outside the U.S., Canada, and Mexico); [FIRST Tech Challenge](#) [3] (FTC, grades 7 to 12, 12 to 18-year-olds); and [FIRST Robotics Competition](#) [1] (FRC, grades 9 to 12, ages 14 to 18). In addition to the high-energy robotics matches, 40 teams of six to 9-year-olds participated in the [Junior FIRSTLEGO League](#) [4] (Jr.FLL, grades K-3), World Festival Expo.

In addition to the FRC winning Alliance and awards, the [Dr. Bart Kamen Memorial Scholarships](#) [5] were given to:

- Brian Cheng, *FIRST* Tech Challenge Teams 406, 407, and 408 and *FIRST* Robotics Competition Team 118 from Parkway South High School in Manchester, MO.
- Patrick Demkowicz, *FIRST* Robotics Competition Team 178 from Farmington Senior High School in Farmington, CT.
- Jane Tong, *FIRST* Robotics Competition Team 75 from Hillsborough High School in Hillsborough, NJ.
- Vishnu Rachakonda, *FIRST* LEGO League Alumnus and *FIRST* Robotics Competition Team 53 from Eleanor Roosevelt High School in Greenbelt, MD.

The *FIRST* Championship honored significant supporters of the *FIRST* mission:

- Qualcomm was the recipient of the **Founder’s Award**, presented each year by *FIRST* founder Dean Kamen to one organization or individual for exceptional service in advancing the ideals and mission of *FIRST*. Dr. Paul E. Jacobs, Executive Chairman, accepted the award.
- Lane Matheson, Director, Tulsa Engineering Academy at Memorial High School; Mentor, Team 932, Circuit Chargers, Tulsa, Okla. was the recipient of the **Woodie Flowers Award**, founded by Dr. William P. Murphy Jr. to recognize an outstanding engineer or teacher who best demonstrates teaching excellence in teaching science, math and creative design.
- Amy Kule, Group Vice President, Macy’s Parade and Entertainment Group was the recipient of the **Make It Loud Award**, given to the person who has contributed the most in increasing the awareness of *FIRST* to the general

public.

- Lynn Tilton, Founder and CEO, Patriarch Partners LLC was the recipient of the new **Trailblazer Award**, given to the person who initiates and supports new, innovative ways to engage and retain girls of every age in *FIRST* programs to prepare them for future math, science and engineering careers.
- Michelle Yang, Alexander Lu, and Valerie Huynh, FRC Team 5212, TAMSformers, Denton, Texas were the recipients of the **FIRST Future Innovator Award sponsored by the Abbott Fund** for their solar still design.

2014 *FIRST* Championship Winners

The event included three different robotics challenges; the 2014 winners of the competitions are as follows:

1. *FIRST* Robotics Competition (FRC) Championship – FRC combines sports excitement with the rigors of science and technology. Under strict rules, limited resources, and time limits, teams are challenged to fundraise, design a brand, exercise teamwork, and build and program robots to perform tasks against competitors.

- The **Winning Alliance** of the *FIRST* Robotics Competition Championship was Team 254, The Cheesy Poofs, San Jose, CA; Team 469, Las Guerrillas, Bloomfield Hills, MI; Team 2848, The All Sparks, Dallas, TX; Team 74, Team C.H.A.O.S., Holland, MI, from the Curie Division.
- Team 27, Team RUSH, Clarkston, MI, won the **Chairman's Award**, the highest honor given at the FRC Championship, recognizing the team that best represents a model for other teams to emulate and best embodies the purpose and goals of *FIRST*.
- Winners of the **Dean's List Award** included:
 - Kinney Anderson, Team 2486, CocoNuts, Flagstaff, AZ;
 - Callie Carbajal, Team 1671, Buchanan Bird Brains, Clovis, CA;
 - Bryce Croucher, Team 2471, Team Mean Machine, Camas, WA;
 - Michael Foley, Team 1923, The MidKnight Inventors, Plainsboro, NJ;
 - Alec Kumpf, Team 1311, Kell Robotics, Marietta, GA;
 - Alexander Lew, Team 1912, Team Combustion, Slidell, LA;
 - Madeleine Logeais, Team 2177, The Robettes, Mendota Heights, MN;
 - Simran Parwani, Team 3504, Girls of Steel, Pittsburgh, PA;
 - Camron Razdar, Team 27, Team RUSH, Clarkston, MI;
 - Anthony Stuart, Team 4201, Vitruvian Bots, Hawthorne, CA

Other FRC Awards included:

- **Engineering Inspiration Award** –
 - *Archimedes Division*: Team 2158, austin CANs, Austin, TX
 - *Curie Division*: Team 2468, Team Appreciate, Austin, TX
 - *Galileo Division*: Team 384, Sparky 384, Richmond, VA

- *Newton Division*: Team 1710, The Ravonics Revolution, Olathe, KS

Outstanding Volunteer of the Year Awards –

- Cynthia Stong, Chief Judge Advisor; Program Manager (retired), The Boeing Company
- Allen Bancroft, Chief Judge Advisor; Operations Manager, Flexicell
- **Championship Finalists** – Team 1678, Citrus Circuits, Davis, CA; Team 1114, Simbotics, St. Catharines, Ontario, Canada.; Team 1640, Sab-BOT-age, Downingtown, PA; Team 5136, Mechapirates, Santa Ynez, CA
- **Division Winners – Archimedes Division**: Team 2590, Nemesis, Robbinsville, NJ; Team 1625, Winnovation, Winnebago, IL; Team 1477, Texas Torque, The Woodlands, TX; Team 3467, The Windham Windup, Windham, NH. **Curie Division**: Team 254, The Cheesy Poofs, San Jose, CA; Team 469, Las Guerrillas, Bloomfield Hills, MI; Team 2848, The All Sparks, Dallas, TX; Team 74, Team C.H.A.O.S., Holland, MI. **Galileo Division**: Team 67, The HOT Team, Milford, MI; Team 973, Greybots, Atascadero, CA; Team 2481, Roboteers, Tremont, IL; Team 2363, Triple Helix, Newport News, VA. **Newton Division**: Team 1678, Citrus Circuits, Davis, CA; Team 1114, Simbotics, St. Catharines, Ontario, Canada.; Team 1640, Sab-BOT-age, Downingtown, PA; Team 5136, Mechapirates, Santa Ynez, CA.
- **Division Finalists – Archimedes Division**: Team 27, Team RUSH, Clarkston, MI; Team 33, Killer Bees, Auburn Hills, MI; Team 334, TechKnights, Brooklyn, NY; Team 175, Buzz Robotics, Enfield, CT; **Curie Division**: Team 1718, The Fighting Pi, Armada, MI; Team 2451, PWNAGE, Saint Charles, IL; Team 573, Mech Warriors, Bloomfield Hills, MI; Team 2016, Mighty Monkey Wrenches, Ewing, NJ. **Galileo Division**: Team 1153, Robo-Rebels, Walpole, MA; Team 4488, ShockWave, Hillsboro, OR; Team 1318, Issaquah Robotics Society, Issaquah, WA; Team 1218, Vulcan Robotics, Philadelphia, PA; **Newton Division**: Team 971, Spartan Robotics, Mountain View, CA; Team 1983, Skunk Works Robotics, Tukwila, WA; Team 341, Miss Daisy, Ambler, PA; Team 3147, Munster HorsePower, Munster, IN.
- **Creativity Award sponsored by Xerox** –
 - *Archimedes Division*: Team 900, Zebracorns, Durham, NC
 - *Curie Division*: Team 2451, PWNAGE, Saint Charles, IL
 - *Galileo Division*: Team 2481, Roboteers, Tremont, IL
 - *Newton Division*: Team 25, Raider Robotix, North Brunswick, NJ
 - **Excellence in Engineering Award sponsored by Delphi** –
 - *Archimedes Division*: Team 4265, Secret City Wildbots, Oak Ridge, TN
 - *Curie Division*: Team 3476, Code Orange, Dana Point, CA
 - *Galileo Division*: Team 836, The RoboBees, Leonardtown, MD
 - *Newton Division*: Team 868, TechHOUNDS, Carmel, IN
 - **Entrepreneurship Award sponsored by Kleiner Perkins Caufield & Byers** –
 - *Archimedes Division*: Team 2590, Nemesis, Robbinsville, NJ
 - *Curie Division*: Team 1714, MORE Robotics,

Milwaukee, WI

- *Galileo Division*: Team 3008, Falcons, Honolulu, HI
- *Newton Division*: Team 1305, Ice Cubed, North Bay, Ontario, Canada

- **FIRST 3D Printing Award sponsored by America Makes and Oak Ridge National Laboratory (ORNL)** – Team 3824, HVA RoHAWKtics, Knoxville, TN

- **Gracious Professionalism® Award sponsored by Johnson & Johnson** –
 - *Archimedes Division*: Team 4077, M*A*S*H, Edmonds, WA
 - *Curie Division*: Team 2073, EagleForce, Elk Grove, CA
 - *Galileo Division*: Team 2642, Pitt Pirates, Winterville, NC
 - *Newton Division*: Team 1678, Citrus Circuits, Davis, CA

 - **Imagery Award in honor of Jack Kamen** –
 - *Archimedes Division*: Team 4013, Clockwork Mania, Orlando, FL
 - *Curie Division*: Team 2169, KING TeC, Prior Lake/Savage, MN
 - *Galileo Division*: Team 5012, Gryffingear, Palmdale, CA
 - *Newton Division*: Team 4481, The Rembrandts, Eindhoven, Netherlands

 - **Industrial Design Award sponsored by General Motors** –
 - *Archimedes Division*: Team 399, Eagle Robotics, Lancaster, CA
 - *Curie Division*: Team 1323, MadTown Robotics, Madera, CA
 - *Galileo Division*: Team 1717, D'Penguineers, Goleta, CA
 - *Newton Division*: Team 1986, Team Titanium, Lee's Summit, MO

- **Industrial Safety Award**

sponsored by UL -

- *Archimedes Division:* Team 2341, Sprockets, Shawnee, Okla.
- *Curie Division:* Team 624, CRyptonite, Katy, Texas
- *Galileo Division:* Team 337, Hard Working Hard Hats, Logan, W.Va.
- *Newton Division:* Team 1710, The Ravonics Revolution, Olathe, Kan.

- **Innovation in Control Award sponsored by Rockwell**

Automation -

- *Archimedes Division:* Team 1540, Flaming Chickens, Portland, Ore.
- *Curie Division:* Team 254, The Cheesy Poofs, San Jose, Calif.
- *Galileo Division:* Team 1885, ILITE Robotics, Haymarket, Va.
- *Newton Division:* Team 2614, MARS, Morgantown, W.Va.

- **Media & Technology Innovation Award sponsored by Comcast/NBC Universal -** Team 1538, The

Holy Cows, San
Diego, CA

▪ **Quality Award
sponsored by
Motorola -**

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Division:
Team
2202,
BEAST R
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Brookfie
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- *Curie
Division:
Team
3990,
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Canada*
- *Galileo
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- *Newton
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2. FIRST Tech Challenge (FTC) World Championship – FTC students learn to think like engineers. Teams build robots from a reusable kit of parts, develop strategies, document their progress, and compete head to head. The object of this year’s game, named FTC BLOCK PARTY!, is to score more points than an opponent by placing plastic blocks into pendulum goals. Teams will be challenged to raise their team alliance flag up a flagpole, raise their robots off the ground using a platform pull-up bar, and end the match with a balanced pendulum to earn extra points.

Approximately 32,000 students on 3,230+ *FIRST* Tech Challenge teams competed during the 2013/2014 FTC season. The 2013/14 *FIRST* Tech Challenge Sponsors

include *Official Program Sponsor* for the *FIRST* Tech Challenge, Rockwell Collins, and *FTC CAD and Collaboration Sponsor*, PTC.

The *FIRST* Tech Challenge World Championship **Inspire Award**, recognizing excellence in robot design and teamwork, went to Team 3141, Bears, Mexico City, Mexico. The **Winning Alliance** was Team 7013, Hot Wired, Portland, OR; Team 5257, Eagles Robotics XPerience, Delray Beach, FL; Team 4240, 4-H Techno Clovers, Accident, MD, from the Franklin Division.

The **FTC Volunteer of the Year Award** winner was Susie Mathieu of St. Louis, MO. The **Compass Award** for excellence in coaching/mentoring was awarded to Robert Spath.

Other FTC awards included:

- **Finalist Alliance** – Team 4251, Cougar Robotics Team, Columbus, Ohio; Team 724, RedNek Robotics Wun, Sun River, Mont.; Team 4318, Green Machine, Ellicott City, Md. from the Edison Division.
- **Division Winners** – **Edison Division**: Team 4251, Cougar Robotics Team, Columbus, Ohio; Team 724, RedNek Robotics Wun, Sun River, Mont.; Team 4318, Green Machine, Ellicott City, Md. **Franklin Division**: Team 7013, Hot Wired, Portland, Ore.; Team 5257, Eagles Robotics XPerience, Delray Beach, Fla.; Team 4240, 4-H Techno Clovers, Accident, Md.
- **Division Finalists** – **Edison Division**: Team 6433, Neutrinos, Lakeland, Fla.; Team 6424, Oly Cow, Olympia, Wash.; Team 3708, Iron Eagles Optimus, Austin, Texas. **Franklin Division**: Team 4997, Masquerade, Tampa, Fla.; Team 6299, ViperBots QuadX, Austin, Texas ; Team 4211, The Bombers, St. Louis, Mo.
- **Rockwell Collins Innovate Award** – Team 3595, Schrödinger's Hat, Fairbanks, Alaska
- **Motivate Award** – Team 3954, Watts up!, Den Haag, Netherlands
- **Connect Award** – Team 4140, Fish in the Boat, Lakeville, Minn.
- **Think Award** – Team 5972, Patronum Bots, East Troy, Wis.
- **PTC Design Award** – Team 3486, Techno Warriors Advanced, Brandon, Miss.
- **Promote Award** – Team 3595, Schrödinger's Hat, Fairbanks, Alaska
- **Control Award** – Team 4092, Nanites, Portland, Ore.
- **Judges' Awards**:
 - **Spreading Culture Through FIRST** – Team 8357, Desert Matrix, Dhahran, Saudi Arabia
 - **Materials Science Ph.D.** – Team 6055, GearTicks, Lincoln, Mass.

FIRST LEGO League (FLL) World Festival – FLL introduces younger children to real-world engineering challenges by conducting research projects and building LEGO-based autonomous robots to complete tasks on a thematic playing surface. FLL teams, guided by their imaginations, discover exciting career possibilities and learn to make positive contributions to society. This year's challenge, [NATURE'S FURY](#) [6], engaged 228,000+ kids on nearly 23,000 teams to explore the awe-

inspiring storms, quakes, waves, and other natural disasters.

Top honors went to **Champion's Award 1st Place** winner, Team 20650, Invicta, Canterbury, United Kingdom; **Champion's Award 2nd Place** winner, Team 21450, Fast and Curious, Aley, Lebanon; and **Champion's Award 3rd Place** winner, Team 737, S.H.I.E.L.D., Brookfield, Wis.

Other FLL awards included:

- **Robot Performance Award** – Team 21550, OMG, of Kaoshiung, Taiwan
- **Strategy & Innovation Award** – Team 5515, Oh Boy...These Pickles are Natural Disasters, Bar Harbor, Maine
- **Programming Award** – Team 3551, M, San Mateo, Calif.
- **Mechanical Design Award** – Team 20700, sAPG-Tigers, Mosbach, Germany
- **Research Award** – Team 10296, CyberHawks, River Vale, N.J.
- **Presentation Award** – Team 21350, DYCI Blue Ocean 10, Bulacan, Philippines
- **Innovative Solution Award** – Team 6371, Positive Aftermath, Great Falls, Va.
- **Teamwork Award** – Team 8157, The Golden Eaglz, Bear, Del.
- **Inspiration Award** – Team 654, MO Peeps, Flint, Mich.
- **Gracious Professionalism[®] Award** – Team 21900, Team DAS, Dammam, Saudi Arabia
- **Outstanding Volunteer Awards** – Mark Daniels of New Hampshire and Stephen Scherr of Virginia
- **Young Adult Mentor Awards** – Christopher Smith of Flint, Mich., and Akshay “Big” Rathish, of Folsom, Calif.
- **Adult Coach/Mentor Awards** – Teofilo A. Gutierrez Gonzales of Peru and Robert and Chris Allsbrooks of Bowie, Md.

Judges' Awards

- Team 21650, LEGO King, Amman, Jordan
- Team 240, The Dream Team, Greenville, S.C.
- Team 21200, Wild Fire Ciberbots, Toluca, Mexico
- Team 11616, Robobots, Cary, N.C.

4. Junior FIRST LEGO League (Jr.FLL) World Festival Expo – Jr.FLL introduces children ages 6 to 9 to the exciting worlds of science and technology. Teams of up to six children and one adult Coach take on a real-world Challenge, to be explored through research, critical thinking, and imagination.

In this year's Jr.FLL Challenge, [DISASTER BLASTER](#) [7], teams took a hands-on approach to the topic of natural disasters. Teams learn how science, technology, engineering, and math impact our everyday lives while they get excited about future innovations.

Jr.FLL awards included:

- **Against All Odds Award** -

- Team 1, SMCESPS, Hong Kong, China
- Team 2, Lightning, Shenzhen, China

- **Amazing Movement Award** -

- Team 619, Smartie Cats, St. Charles, Mo.
- Team 798, BRICKFOOTS, Xenia, Ohio

- **Complexity and Decoration Award** -

- Team 1280, Swirly Twirly Girlies, Connersville, Ind.
- Team 1487, S.H.W.E.E.T., Oklahoma City, Okla.

- **Construction Innovation Award** -

- Team 2219, Blizzard Busters, Mississauga, Ontario, Canada
- Team 251, Camanche team 3, Camanche, Iowa

- **Disaster Blaster Award** -

- Team 1007, LEGO Brothers, North Aurora, Ill.
- Team 2142, EnegySmart, Somerset, N.J.

- **Effort and Learning Award** -

- Team 1260, Rescue Pandas, Roswell, Ga.
- Team 2756, LEGO Creators, Stamford, Conn.

- **Explosive Ideas Award** -

- Team 1126, LEGO ROBOTICS, Biloxi, Miss.
- Team 2007, Storm Busters, Redmond, Wash.

- **Gracious**

Professionalism

Award -

- Team 1441,
Team
Tornadoes,
Overland Park,
Kan.
- Team 360,
LEGO Storm,
Plano, Texas

▪ **Inquiring**

Minds Award -

- Team 4,
Science
Art
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Shangh
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2014 *FIRST* Championship Sponsors

Qualcomm is the **2014 *FIRST* Championship Presenting Sponsor**.

2014 *FIRST* Championship Program Sponsors include: Monsanto Company, Abbott Fund, Boeing Company, Coca-Cola Company, FedEx Corporation, NASA, NRG Energy, Inc., United States Air Force, and United Technologies Corporation.

Other 2014 *FIRST* Championship Sponsors include: America Makes, Autodesk, Bechtel Corporation, Best Buy Co., Inc., Booz Allen Hamilton, Inc., Central Intelligence Agency, Comcast/NBCUniversal, Culinary Institute of America, GoDaddy, International Association of Emergency Managers, International Council on Systems Engineering (INCOSE), Leidos, Inc., Microsoft Corporation, Mouser Electronics, Inc., Novelis, Inc., Nvidia Corporation, Oak Ridge National Laboratory,

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Patriarch Partners, LLC (I am Jane; Ken Paves), Siemens, Southwest Airlines, SpaceX, UL, and Vulcan Spring.

Save the date: The [FIRST Championship](#) [8] will be in St. Louis, Mo. through 2017: April 22-25, 2015 | April 27-30, 2016 | April 26-29, 2017

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<http://www.scientificcomputing.com/news/2014/05/12000-students-bring-custom-robots-ultimate-sport-mind-showdown>

Links:

- [1] <http://www.usfirst.org/roboticsprograms/frc>
- [2] <http://www.usfirst.org/roboticsprograms/fll>
- [3] <http://www.usfirst.org/roboticsprograms/ftc>
- [4] <http://www.usfirst.org/roboticsprograms/jr.fll>
- [5] http://www.usfirst.org/sites/default/files/uploadedFiles/About_Us/Scholarships/2014_Assets/2014_FIRST_Bart_Kamen_Memorial_Scholarship_Description.pdf
- [6] <http://www.firstlegoleague.org/challenge/2013naturesfury>
- [7] <http://www.juniorfirstlegoleague.org/2013-disaster-blaster-challenge.html>
- [8] <http://www3.usfirst.org/roboticsprograms/first-championship>