



FIRST® LEGO® League FAQ

What is FIRST® LEGO® League?

FIRST® LEGO® League for Grades 4-8 (ages 9 to 16; ages vary by country) introduces children to the fun and experience of solving real-world problems by applying engineering, math, science, and technology. FIRST LEGO League is an international program for children created in a partnership between FIRST and the LEGO® Group in 1998. Each year, the program announces an annual Challenge to teams, which engages them in authentic scientific research and hands-on robotics design using LEGO MINDSTORMS® technologies. After a minimum of eight weeks, the FIRST LEGO League season culminates at high-energy, sports-like tournaments. In the 2017/2018 season, more than 235,000 students are participating in over 90 countries.

What is the LEGO Group's role?

The LEGO Group is the Founding Partner of FIRST LEGO League. Since its inception, the LEGO Group has supported the growth and success of the program by contributing each year to the development, management, and funding of customized Challenge Sets, Robot Sets, marketing communications resources, volunteers, and more. During the 2015/2016 season, LEGO Education became a FIRST Strategic Partner.

What is the role of FIRST?

FIRST is responsible to provide:

- The overall vision and mission to inspire young people's interest and participation in science and technology. This vision guides all FIRST decisions and led to the development of the FIRST LEGO League program.
- The FIRST LEGO League program includes developing the annual Challenge, the standards for the program and Championship Tournaments, and supporting program documents.

Do you have any information on how FIRST LEGO League actually impacts the future science and engineering workforce?

More than 235,000 students will participate in FIRST LEGO League in 2017/2018. A study of participants in the U.S. and Canada conducted by Brandeis University showed that:

- Ninety-four percent of coaches reported an increase in students' understanding of how science and technology can be used to solve problems

Among past participants*:

- 98% expressed a greater awareness of STEM
- 88% expressed an increased interest in going to college
- 87% expressed an increased interest in doing well in school
- 84% expressed interest in a job that uses science and technology
- 99% increased teamwork skills
- 95% increased time management skills

*Source: Evaluation of the FIRST LEGO League SENIOR SOLUTIONSSM season (2012-2013)

Is the *FIRST* LEGO League experience rooted in real-world issues?

Absolutely. Every year, as *FIRST* LEGO League designs the Challenge, we look to the real-world practitioners and experts in the chosen subject area for guidance, input, and opinion, so that children are engaged in practical and realistic activities.

For the 2017/2018 **HYDRO DYNAMICS**SM Challenge, *FIRST* collaborated with experts in the fields of water purification, wastewater collection, environmental compliance, hydrology, agriculture, medicine, and more. These experts made up the Challenge Advisory Team, which included representatives from DEKA Research & Development, Washington State University, and the Institute for Water, Environment & Health at United Nations University, among others. These specialists collaborated with *FIRST* to create a theme and challenge missions that reflect how we find, transport, use, and dispose of water.

Why did you select **HYDRO DYNAMICS as the 2017/2018 Challenge theme and why is it important?**

Every *FIRST* LEGO League Challenge reflects an important real-world issue as a way to not only bring visibility to it among young children, but also as a way to show students how science and technology can contribute to solving problems. The themes are selected to engage students in STEM learning via a topic relevant to their real-life. In the *FIRST* LEGO League Season Challenge, **HYDRO DYNAMICS**, teams will explore the human water cycle and discover how we find, transport, use, or dispose of water. They will also develop their own innovative solutions to improve the human water cycle. Throughout their experience, teams will operate under the *FIRST* LEGO League signature set of Core Values.

What do the students win?

The competition is judged in four areas: Project; Robot Performance; design and programming of the robot; and Core Values. A judging committee of distinguished professionals makes award decisions. The highest honor, the Champion's Award, goes to the team that is strongest across all four performance categories. Every participant who attends a championship tournament receives a medallion to commemorate his/her experience and dedication to the eight-week process.

What is the role of the *FIRST* LEGO League partners?

FIRST LEGO League relies on volunteers to run the program at many levels, from managing a region to coaching an individual team. *FIRST* and LEGO partner with and manage organizations with similar missions to deliver the program in specified regions. *FIRST* LEGO League partners roll out the program in their respective regions. These partners fundraise, run championship tournaments, hold workshops and demonstrations, market the program locally, handle public relations, and recruit volunteers and teams.

What other sponsors are involved?

In addition to the LEGO Group's role as Founding Partner, *FIRST* LEGO League is supported by Global Sponsors 3M Company, LEGO System A/S, NI, and Rockwell Automation. Also, *FIRST* LEGO League championship tournaments are made possible by hundreds of local sponsors, as well as universities/colleges participating in the program.