

FUTURE SKILLED



FIRST
CANADA

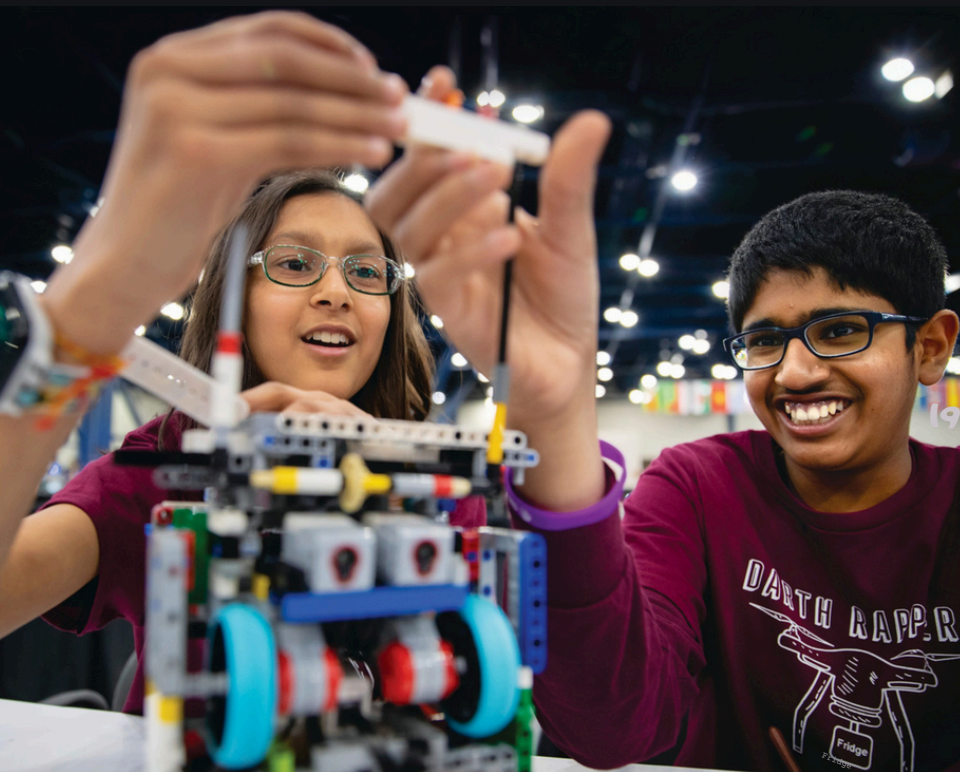
**FUTURE
SKILLED**



FOR *I*NSPIRATION & *R*ECOGNITION OF *S*CIENCE & *T*ECHNOLOGY

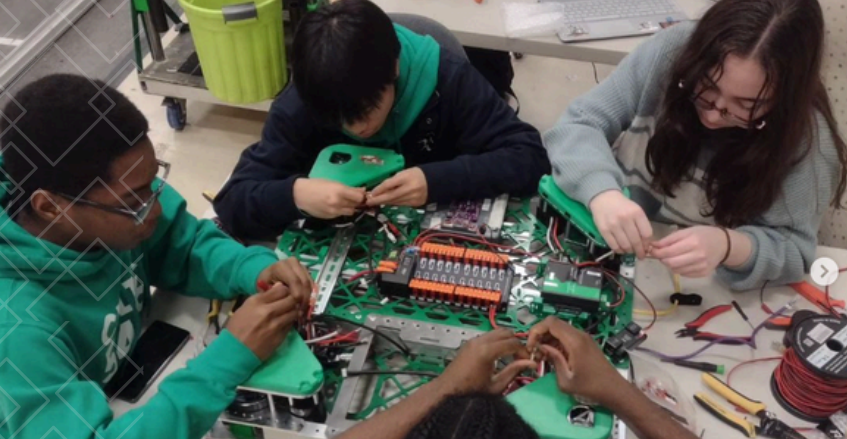
We are not using kids to
build robots. We are using
robots to build kids.

— Dean Kamen, Founder, FIRST®



Help *FIRST*® Canada provide unique, hands-on STEM learning experiences to millions of students!
www.firstroboticscanada.org/donate

Your contribution is appreciated. Thanks for joining *FIRST* Canada as we create a culture that celebrates science and technology!



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MISSION

Purpose

FIRST Robotics Canada exists to prepare the young people of today for the world of tomorrow.

Mission

The mission of *FIRST* Robotics Canada is to provide lifechanging robotics programs that give young people the skills, confidence, and resilience to build a better world.

Vision

The Vision of *FIRST* Robotics Canada is to transform Canada by creating a culture where science, technology, engineering, and mathematics (STEM) are celebrated and where young people dream of becoming science and technology leaders.



FIRST Robotics Canada's Affiliated School Board program is designed to allow Ontario School Boards that believe in the power of *FIRST* to provide better and greater access to *FIRST* programs to their students. By becoming a *FIRST* Robotics Canada Affiliated School Board, your board will gain access to exclusive programs, resources and discounts to help with the scalability and accessibility of *FIRST* in your schools.

Programs Offered:

- Coding in the Classroom
- Guest Speakers Series
- Teacher Training
- Workshops
- Team Grants
- Discounted Products

Benefits: Exclusive program discounts and increased grants for affiliates.

LEARN MORE



Learn more at:
firstroboticscanada.org/affiliateprogram

AFFILIATIONS

FIRST PROGRAMS

FIRST LEGO LEAGUE

DISCOVER

AGES 4-6



Students discover the fascinating world of STEM, develop good habits of learning and are introduced to *FIRST*® Core Values, such as teamwork, as they design and build their DUPLO® displays in a non-competitive environment.

FIRST LEGO LEAGUE

EXPLORE

AGES 6-10



Students work in non-competitive teams to explore the engineering process as they are introduced to programming and research, and work on dynamic LEGO® robotics model.

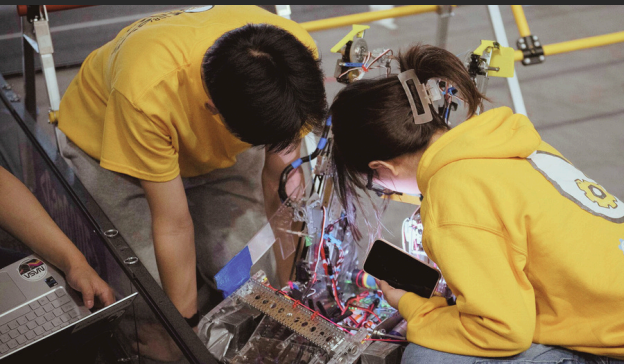
FIRST LEGO LEAGUE

CHALLENGE

AGES 9-14



Students are challenged to solve a real-world problem and autonomously complete missions with their custom LEGO® robot in 2.5 minutes. During this competitive program, they are exposed to career possibilities and learn to make positive contributions to society.



**FIRST
TECH
CHALLENGE**
AGES 12-18

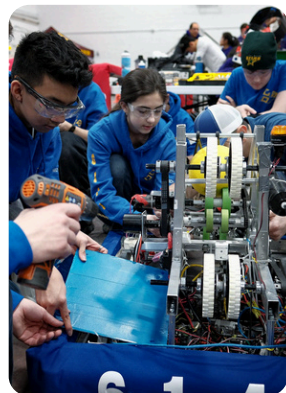
Participants build vibrant, supportive communities within and between teams, learning to build relationships, collaborate, strategize and think like engineers. Teams design, build, document, and code robots to compete in a two versus two alliance format. Robots are built from a reusable control system that can be coded using various programming techniques



**FIRST
ROBOTICS
COMPETITION**
AGES 14-18

Teams of 10-100 participants develop and compete in three-team alliances with 120 pound robots, combining the excitement of sport with the rigours of science and technology. Students gain lifelong skills including CAD, fabrication, coding, entrepreneurship and more. The ethos of “Coopertion” and “Gracious Professionalism” creates rich relationships in the community.

COMPETITIVE TEAMS



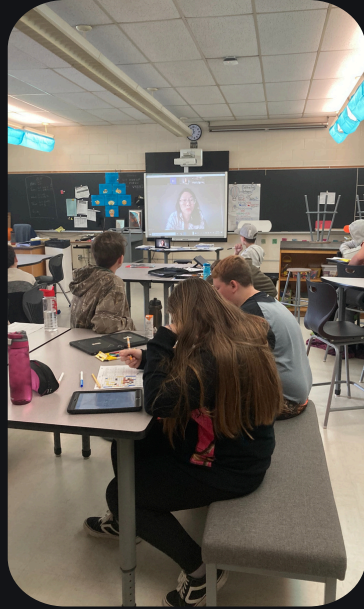
Competitive *FIRST* LEGO League Challenge (FLL), *FIRST* Tech Challenge (FTC), and *FIRST* Robotics Competition (FRC) teams provide students with hands-on STEM experiences. FLL engages 9-14 year olds in creating autonomous LEGO robots. FTC challenges middle and high schoolers with more complex robots, while FRC tasks high school students with building large scale robots for alliance-based competitions. These programs teach technical skills like engineering and coding, while emphasizing vital skills like teamwork, leadership, and communication.

These programs align with the Ontario curriculum, reinforcing STEM concepts while fostering creativity and innovation. Students apply classroom learning to real world challenges, enhancing their problem solving abilities. Through troubleshooting and iteration, they develop critical thinking skills.

Participation in these competitions ignites a passion for STEM, preparing students for future academic and professional pursuits, while positioning them as the future leaders of Ontario's workforce.

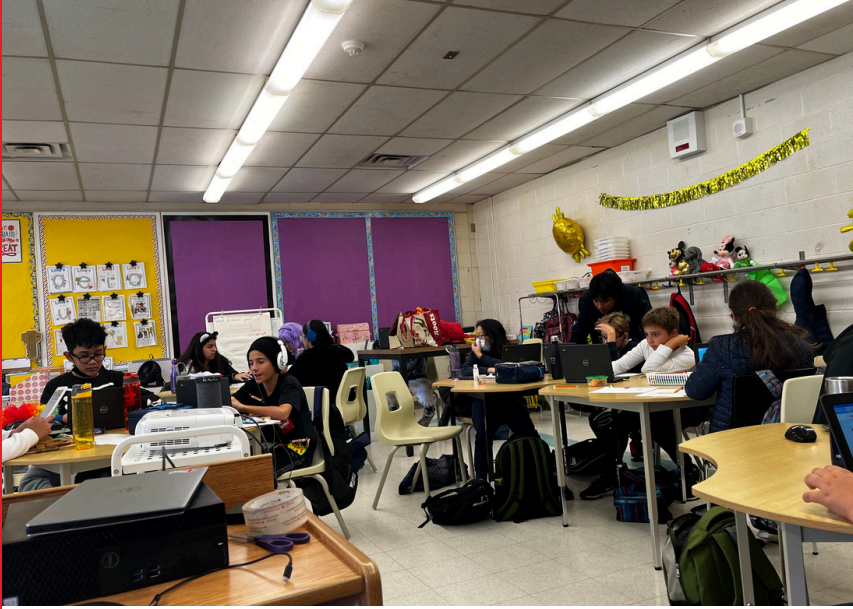
REVOLUTIONIZE LEARNING WITH CLASS PACKS

The *FIRST* Tech Challenge Class Pack curriculum emphasizes hands on learning, career exploration, and industry-ready skills. The *FIRST* LEGO League Challenge and Explore Class Packs provide comprehensive 12 session curricula, guiding students through STEM and robotics exploration. Students collaborate on robot design, building, and programming based on current competitive challenges, fostering teamwork and critical thinking.

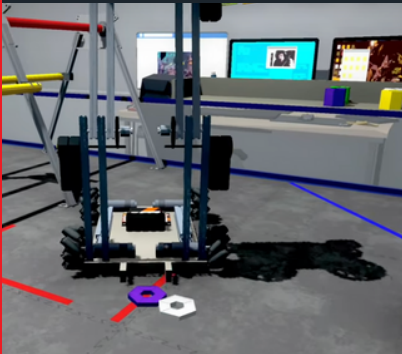


Additionally, the Discover Class Pack offers resources for early learners, promoting STEM through play using LEGO Education materials. Family Engagement Sets extend learning beyond the classroom, reinforcing concepts taught at school. These programs aim to develop essential skills and prepare students for success in STEM fields.

CLASS PACKS



FIRST Robotics Canada brings coding to the classroom with virtual workshops led by experienced representatives using FTCSIM. FTCSIM is free online software, enabling users to code virtual robots, with Blocks or Java, through challenges to learn coding fundamentals. These modules enhance students' coding skills and logical reasoning, aligning with the new Ontario curriculum requirements.



By creating a "class" in the FTCSIM, educators can also easily assign tasks and track student progress while seamlessly and accessibly integrating coding education into their classrooms.

This initiative enriches learning experiences, equips educators, and fosters a passion for coding and robotics.



INDUSTRY EXPERTS IN THE CLASSROOM

The Virtual Guest Speakers Series connects classrooms nationwide with industry leaders like Honda Canada, GM Canada, and 3M Canada, offering insightful discussions on STEM career opportunities. Students learn firsthand about professionals' career journeys, inspiring them to explore diverse STEM paths.

SESSIONS HIGHLIGHT

- the impact of robotics skills in various fields, from automotive engineering to environmental sustainability
- the importance of mentorship in cultivating future STEM talent and fostering meaningful connections between students and experts

FOR EDUCATORS

Integrating these discussions into the curriculum enriches learning and showcases real world STEM applications.



FIRST IN CLASS

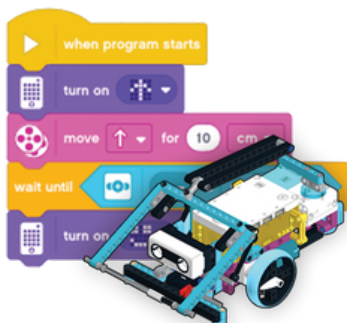


During these half-day, in-person STEM workshops, students in Grades 1 – 8 will have the opportunity to develop their communication, collaboration and problem-solving skills through participation in a hands-on learning experience in which they build vehicular robots using LEGO SPIKE Prime or LEGO SPIKE Essential sets, learn coding concepts that align with expectations in the Ontario Mathematics and Science & Technology Curricula and apply their coding skills to bring their creations to life.



Teachers interested in implementing Elementary or Secondary *FIRST* programs, either in the classroom or as an extracurricular activity, can participate in a full day (can also be split up over two half days) immersive professional learning session in which they will:

- Learn approaches to implementing *FIRST* programs which will impact student outcomes.
- Explore the capabilities and applications of LEGO and all other robotics kits in the *FIRST* continuum of programs (and their associated programming software)
- Become familiar with the program components and available resources
- Gain an understanding of the ways in which the *FIRST* programs align with expectations in the Mathematics, Science and Language curricula
- Discuss next steps and develop an action plan for implementation



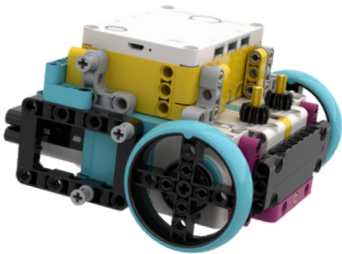


Grants	Non Affiliated	Affiliated
FIRST LEGO League Explore New Team Grant	\$200	\$300
FIRST LEGO League Challenge New Team Grant Returning Team	\$600 \$200	\$800 \$400
FIRST Tech Challenge New Team Grant Returning Team	\$750 \$500	\$1000 \$750
FIRST Robotics Competition New Team Grant Returning Team	\$2000 \$800	\$2500 \$1300
Class Pack Grants	Non Affiliated	Affiliated
FIRST LEGO League Discover	\$250	\$400
FIRST LEGO League Explore	\$1000	\$1250
FIRST LEGO League Challenge	\$1250	\$1750
FIRST Tech Challenge	\$2000	\$2500

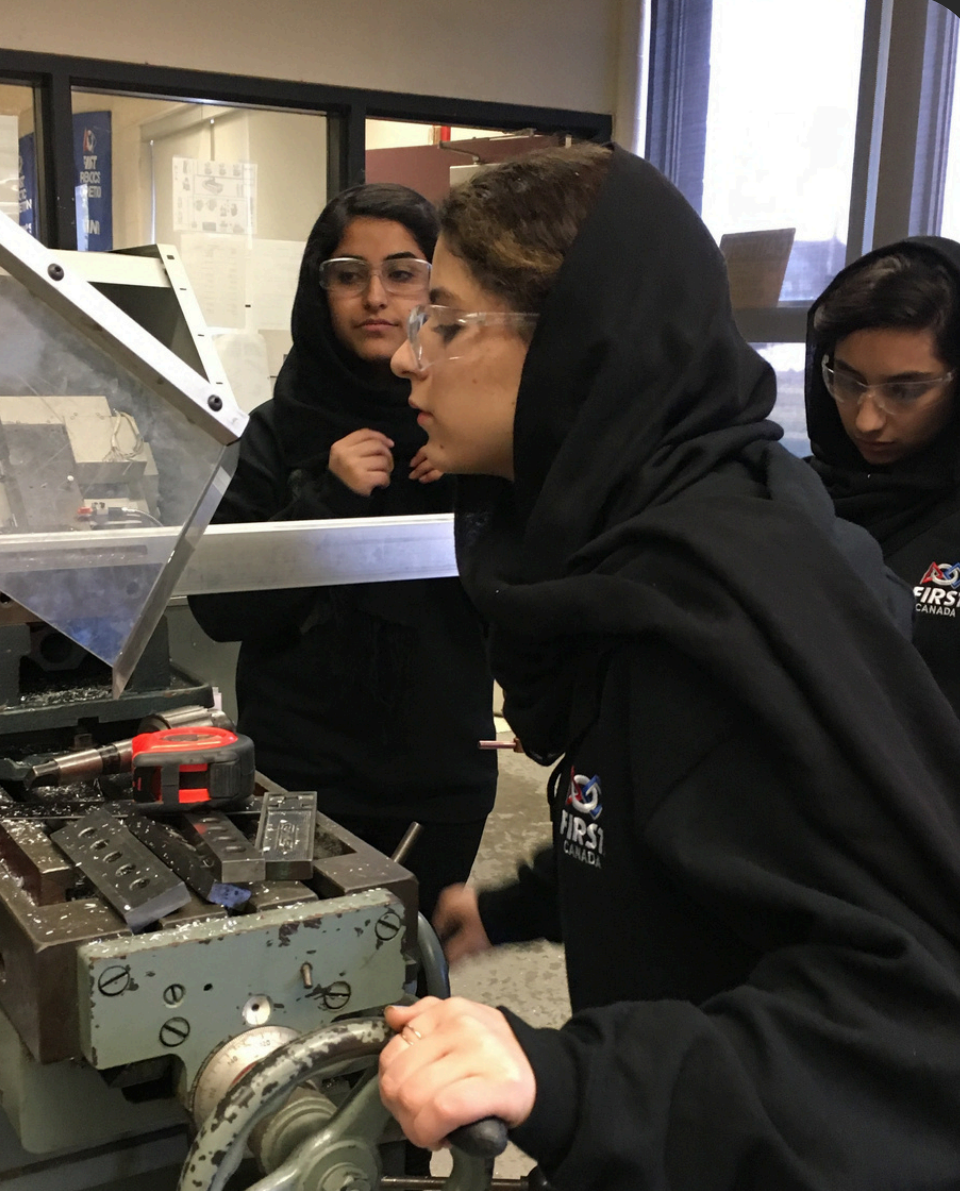
TEAM REGISTRATION GRANTS



In partnership with our vendors, there will be exclusive Elementary and Secondary school robotics product discounts. These include a minimum of **10%** up to a maximum of **25%** discounts on selected items.



DISCOUNTED PRODUCT PRICING



For more information contact:
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firstroboticscanada.org/frc/educationplan/