



Martingrove Robotics

Martingrove Collegiate Institute. Winterton Drive, Toronto Ontario, M9B 3G1
School Principal: Ralph Nigro President: Kevin Cox Staff Advisor: Dean Gunby
(416) 394-7110 mci.robotics@gmail.com team854.ca

What is FIRST?

FIRST is an acronym; "For Inspiration and Recognition of Science and Technology". The FIRST organization was founded in 1989, by entrepreneur and inventor Dean Kamen, to inspire young people's interest in science and technology. The FIRST organization motivates young people to become science and technology leaders, through competitions of technology and skill, such as the FIRST Robotics Competition.

The FIRST Robotics Competition (FRC)

The FIRST Robotics Competition is a "unique varsity sport of the mind". Each year high school students and mentors around the world are presented with a challenge, to design and build a robot that will participate in a team vs. team game of skill and strategy. For example, last year's competition was called "Logomotion" and required the robots to pickup and hang inflatable tubes on a scoring grid, gaining extra points if they were placed in the correct order. The competition game changes every year so that teams are challenged to design and build new, unique machines. The FIRST Robotics Competition places a strong emphasis on creativity, innovation, hard work and professionalism.

Our Team (Team 854, The Iron Bears)

Martingrove Collegiate Institute, situated in Etobicoke Ontario, has been participating in the FIRST Robotics Competition since 2002. Throughout our years of participation, we have developed a reputation among other teams and schools across North America for our ingenuity and innovative designs. Our omni-wheel drive system, which is designed and built at our school, has been described by many judges and competition heads as "one of the best drive trains ever designed and used in competition". For the 2010/2011 year, our team consisted of over 30 hardworking and dedicated high school students from grades 9 through 12, along with the guidance and supervision of 2 teachers, and many returning graduates who act as mentors.

Team Achievements and Accomplishments

Throughout the years we have won numerous awards including:

- 2009 GTA: Delphi "Driving Tomorrow's Technology" Award
- 2009 GTA: Bronze Finalist
- 2008 GTA: Xerox Creativity
- 2007 Waterloo: Rockwell Automation Innovation in Control
- 2007 Waterloo: Regional Silver Finalist
- 2007 GTA: Motorola Quality
- 2007 GTA: Regional Silver Finalist

Impact

The FIRST Robotics Competition provides many students with a unique, "once in a lifetime experience". During the short 6-week "build season" students work hard as a team, and apply the knowledge and skills they have gained in their school courses, such as Math, Physics, Manufacturing, Technological Design and Computer Science. Students also gain a substantial amount of practical skills as they learn to use the lathe, and CNC mill along with many other machines, in order to fabricate custom parts for the robot. While at the same time members of the Programming team learn to develop and utilize complex mathematical algorithms to control every aspect of the robot. Students also gain valuable life skills such as organizational and time management skills, and self confidence. Many students, who have participated in the FIRST Robotics Competition, go on to pursue Engineering and Science in their post-secondary education.

Sponsorship and Support

The FIRST competition provides students with an invaluable experience through which they are able to apply their knowledge and innovation in both designing and building a robot. There are numerous expenses required to participate in the competition which can total approximately \$20,000 or more. Registration alone, for a single Regional competition, is \$5,000. This is only the beginning however, as there are also various other items which require funding, including; the kit of parts, build costs, tools, promotion and especially the transportation of the robot. I would like to extend an invitation to your organization to join us in our endeavors for the 2011 season. Both parties and our society will ultimately benefit from your help to provide our dedicated and dynamic team of ambitious students with the finances and tools that will enable them to display their skills and gain the experience of a lifetime.

Contact Information

For more information about the FIRST organization and competition, please visit www.usfirst.org. We encourage you to visit our school and receive a demonstration of the robot and a tour of our facilities, or to check out our new team website at www.team854.ca. If you would like to meet our team, visit our facility, or would like more information about our team, please feel free to contact us at (647) 381-1153, or email us at mci.robotics@gmail.com.

Sponsorship Options

For any donation of \$500 or more you or your company will receive a tax credit from the TDSB. There are two different ways you can help sponsor our team:

1. **Money:** All checks should be made payable to the Toronto District School Board with Martingrove Robotics in the memo.

Bronze Sponsor (\$100-299)

Sponsor will receive a thank you letter at the end of the season

Sponsor will be invited to robot demonstration (once completed)

Silver Sponsor (\$300-749)

Sponsor's logo will be present on the team: uniforms, website, pamphlets and poster, in addition to all things stated above.

Gold Sponsor (\$750-1499)

Sponsor's logo will be displayed on the robot, and will receive team appreciation plaque in addition to all things stated above.

Platinum Sponsor (+\$1500)

Sponsor will be named as one of the team sponsors during the competition, in addition to all things stated above.

Largest contributing sponsor will be awarded trophies won by team

2. **Time and Resources:** Any time devoted to help coach, teach or mentor our team is always valued and we invite you to visit us during the build season and competition to witness the team you are supporting. We also greatly appreciate donations of resources such as a warehouse space in which we can construct our competition robot or a pickup truck and trailer with which we can transport materials to the competition.