

FIRST ROBOTICS ONTARIO DISTRICT COMPETITION North Bay Event March 23-24, 2024



EVENT HOSTS PRESENT

WELCONE

Greetings, FIRST® Robotics Competition teams and welcome to another year filled with creativity, big ideas and bold action!

We're thrilled to see you take the stage for CRESCENDOSM presented by Haas, part of the 2023-2024 cross-program season, *FIRST*® IN SHOWSM presented by Qualcomm. This year, we're shining a spotlight on the role STEM plays in the arts and how it empowers young people, like you, to design and build a world of endless possibilities.

Take a moment to consider just how intertwined STEM and the arts often are. So much of the artistic content we produce and consume has been inspired and brought to life by STEM. It's our STEM skills that help us design a logo, costume, or movie set from a blank canvas, 3-D print a sketch, light the stage for a photoshoot, or rock an arena with a jaw-dropping performance. Our skills and knowledge empower us to be creative, pursue our big ideas, and build what some may only dream of.

To our teams competing this year, congratulations. Your creative spirit, acts of *Gracious Professionalism®*, and collective passion for making a positive difference in the world have touched the hearts of your peers, mentors, local communities, and all of us here at *FIRST*.

And to the mentors, parents, volunteers, partners, sponsors, donors, alumni, and many supporters who invest in *FIRST* participants in countless ways: thank you. You empower students to explore their full potential, forge new paths, and find ways to make an impact, do good, and inspire others to do the same.

As you all step onto the competition stage, remember that *FIRST* is *More Than Robots*®. Your journey with *FIRST* will help you design your life's path, from building perseverance as you overcome obstacles to illuminating career paths you might not have considered – including those in the arts. Just ask our esteemed alumni, some of whom became audio engineers, architectural visualization specialists, VFX artists, cinematographers and more, all while remaining an integral part of our STEM community.

By embracing the connections between STEM and the arts, you're not only shaping the future of technology and science but pioneering the frontiers of human creativity.

The boundaries of what's possible are stretched and reshaped by your collective imagination and resilience, and we can't wait to see the wonders you'll create.

With that said – Lights, Camera, STEAM! Sincerely,

Dean Kamen, FIRST Founder

Chris Moore

Chris Moore, FIRST CEO



Dean Kamen



Chris Moore

Welcome to the 2024 FIRST® Robotics Competition North Bay District Event

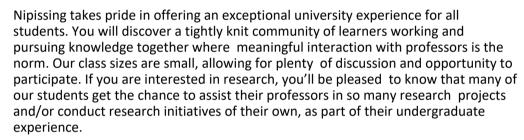
Message from the Honorary Chair



On behalf of Nipissing University, I extend my congratulations and welcome to all teams participating in the *FIRST* Robotics District Competition being held on our Nipissing University campus in North Bay.

As competitors in *FIRST* Robotics, you are discovering a great deal about science, technology, engineering, and math, as well as the value of leadership and involvement in science-based extra curricular activities.

This is my third robotics competition as President & Vice-Chancellor of Nipissing University, and I always look forward to being part of the excitement that your teams bring to this event. I hope that you take the opportunity to get to know our university a little better during your time with us.



Nipissing's campus in North Bay is surrounded by the pristine beauty that defines Northern Ontario, with over 700 beautiful acres, exceptional academic buildings and some of the best residences in Canada.

So, please take some time to get know Nipissing while you are here. I encourage you to visit us again and take a tour to find out more about what we offer. You can find more information at: http://ibelongatnipissingu.ca/ Good luck in the competition, and I look forward to seeing you on campus.

Sincerely,

Lew B. Namely

Kevin B. Wamsley, PhD President & Vice Chancellor Nipissing University



North Bay Robotics Welcome Letter

It is our great pleasure to welcome you to *FIRST* Robotics Canada CRESCENDO hosted by North Bay Robotics.



For those who are new to North Bay, we encourage you to embrace our northern hospitality and our eagerness to ensure you return home with fond memories and new friendships.

For those familiar with our city's joie de vivre, it's wonderful to have you return, and as your hosts, we are certain you'll cheer, socialize, and compete to the fullest.

We are encouraged by the enthusiasm, skill, and craftsmanship in Ontario's youth during this competition. The future is in sound hands. We recognize the breadth of talent and dedication of all competitors, mentors, parents, family and friends, and our event sponsors.

On behalf of the North Bay Robotics' Steering Committee, we extend a warm welcome, we encourage spirited competition and limitless opportunities for lifelong memories.

Paul Cook Retired North Bay Chief of Police. Chris Minor Manager, Northern Region Construction Enbridge





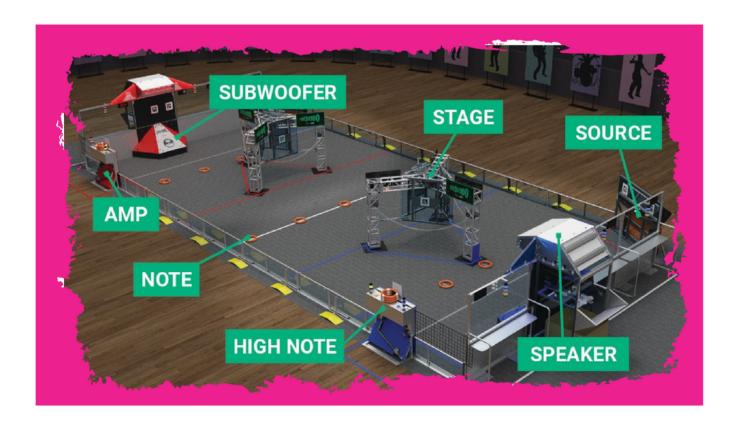




Gameplay

Inspired by the art and experiences that entertain us and move usCRESCENDOSM presented by Haas will shine the spotlight on the impact that engineering and innovation have on art.

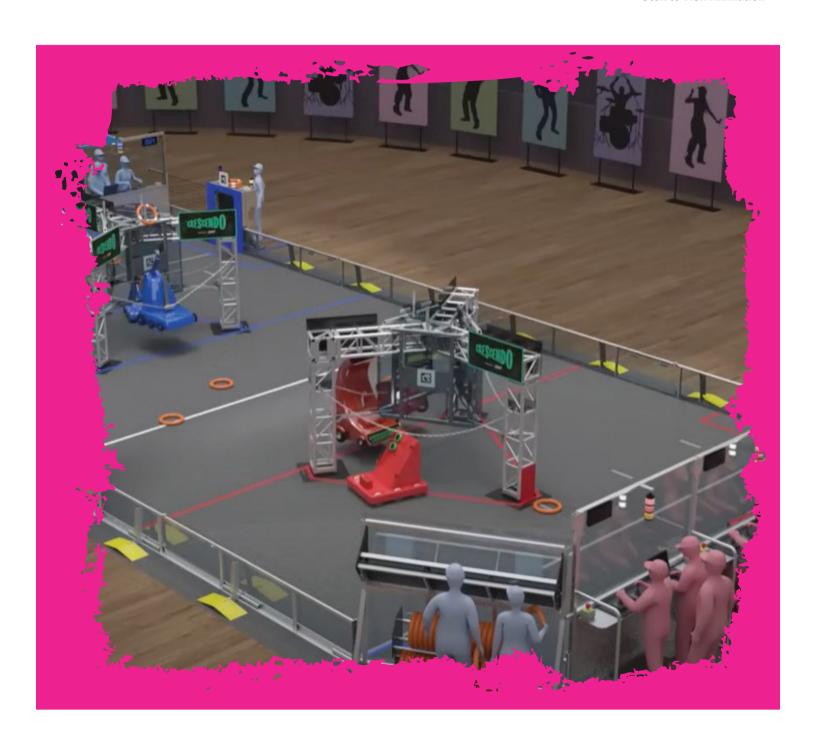
- Teams will use their STEM skills and creative power to turn up the volume as they design, build, and program their robots for action-packed game play.
- Each match begins with a 15-second autonomous period, during which robots operate only by preprogrammed instructions to move from their starting positions and score game pieces, called notes, into their two goals: the speaker and the amp. They also use this time to collect additional notes from around the field.
- In the remaining 2 minutes and 15 seconds, drivers control their robots and continue earning points through strategic match play. Once two notes are scored in an alliance's amp, the human player can hit a button to increase the value of notes scored in their speaker for 10 seconds.
- At the end of the match, robots race to climb on chain, score notes in a pocket called a trap, and harmonize by hanging multiple robots on a single chain. Humans throw high notes onto their microphones to boost points associated with robots on the corresponding chains.
- The alliance with the highest score at the end of the match wins!



View the 2024 game animation for the 2024 FIRST Robotics Competition game, CRESCENDO.



Scan to View Animation





Autonomous Award

Celebrates the team that has demonstrated consistent, reliable, high-performance robot operation during autonomously managed actions. Evaluation is based on the robot's ability to sense its surroundings, position itself or onboard mechanisms appropriately, and execute tasks.

Creativity Award sponsored by Rockwell Automation

Celebrates creativity that enhances strategy of play and was intentionally designed and not discovered.

Digital Animation Award sponsored by Automation Direct. Celebrates machine robustness in concept and fabrication.

Celebrates the art of the digital animation and its close relationship to STEAM (Science, Technology, Engineering, Art, and Mathematics).

Engineering Inspiration Award

Celebrates outstanding success in advancing respect and appreciation for engineering within a team's school and community.

Excellence in Engineering Award

Celebrates the team that demonstrates a professional approach to the design process.

Finalist

Celebrates the Alliance that makes it to the final match of the competition.

FIRST Dean's List Award

Celebrates outstanding student leaders whose passion for and effectiveness at attaining FIRST ideals is exemplary.

FIRST Impact Award

The most prestigious award at *FIRST*, it honors the team that best represents a model for other teams to emulate and best embodies the purpose and goals of FIRST.

Founder's Award

Recognizes the organization or individual that has contributed significantly to the growth of FIRST.

Gracious Professionalism Award

Celebrates outstanding demonstration of FIRST Core Values such as continuous *Gracious Professionalism* working together both on and off the playing field.

Imagery Award in honor of Jack Kamen

In honor of Jack Kamen, Dean's father, for his dedication to art and illustration and his devotion to FIRST. This award celebrates attractiveness in engineering and outstanding visual aesthetic integration of machine and team appearance.

Industrial Design Award sponsored by General Motors

Celebrates the team that demonstrates industrial design principles, striking a balance between form, function, and aesthetics.

Innovation in Control Award

Celebrates an innovative control system or application of control components - electrical, mechanical, or software - to provide unique machine functions.

Judges' Award

During the course of the competition, the judging panel may decide a team's unique efforts, performance, or dynamics merit recognition.

Quality Award

Rookie All-Star Award

Celebrates the rookie team exemplifying a young but strong partnership effort, as well as implementing the mission of FIRST to inspire students to learn more about science and technology.

Rookie Inspiration Award

Celebrates a rookie team's outstanding success in advancing respect and appreciation for engineering and engineers, both within their school, as well as in their community.

Safety Animation Award sponsored by UL Solutions

Recognizes the team that submits a short animated film that best promotes the current season's team safety focus.

Team Spirit Award

Celebrates extraordinary enthusiasm and spirit through exceptional partnership and teamwork furthering the objectives of FIRST.

Team Sustainability Award sponsored by Dow

Celebrates and recognizes a team which has developed sustainable practices to have a positive environmental impact and achieve long-term continuity.

Volunteer of the Year Award

Presented to an individual, business, or organization that consistently excels in their efforts, with proven results in the areas of impact, leadership, personal commitment, community, and historical contributions.

Winner

Celebrates the Alliance that wins the competition.

Woodie Flowers Finalist Award

Presented to an outstanding Mentor in the robotics competition who best leads, inspires, teaches, and empowers their team using excellent communication skills.



2024 SEASON FACTS





(AS OF 01/04/2024)

- 33rd Season Game: CRESCENDO SM presented by Haas
- 3,468 Teams
 - · 3,141 Veteran Teams
 - · 327 Rookie Teams
- . 86,700+ Youth Team Members
- 27,700+ Mentors/Adult Supporters
- . 28 countries:

Australia (36 teams)Israel (62 teams)
Azerbaijan (1 team)Japan (6 teams)
Belize (1 team)Mexico (86 teams)
Brazil (57 teams)Netherlands (3 teams)
Bulgaria (1 team)Panama (1 team)
Canada (202 teams)Philippines (1 team)
China (22 teams)Poland (1 team)
Chinese Taipei (28 teams)Romania (1 team)
Colombia (1 team)Singapore (1 team)
Croatia (1 team)Sweden (1 team)
Czech Republic (2 teams)Switzerland (1 team)
Dominican Republic (2 teams)Türkiye (138 teams)
France (3 teams)United Kingdom (3 teams)
India (6 teams)USA (2,800 teams)

EVENTS

- 144 Live Kickoff events and streaming on FIRSTtv
- (01/06/2024) 62 Regional Events
- 98 District Events
- * 11 District Championships:
- Chesapeake, Indiana, Israel, Michigan, Mid-Atlantic, New England, North Carolina, Ontario, Pacific Northwest, Peachtree, Texas/New Mexico Districts
- . 1 FIRST® Championship Event: April 17 20, 2024



KIT OF PARTS FACTS

- Items from more than 65 in-kind donors
- Nearly 500 different items distributed via the Kit of Parts system
- More than 72 tons of Kickoff Kit materials shipped all over the world by FedEx (weighing more than 150 grand pianos)

ROBOT FACTS

- · Weight: up to approximately 125 lbs.
- · total Robots are remotely controlled
- · Powered by a 12-volt battery

FIELD FACTS

- Playing area: 27' W x 54' L
- Teams score game pieces, called Notes, in their Amp and Speaker
- As time runs out, robots race to get onstage and deliver Notes to their Traps

ALUMNI

- Participants and alumni of FIRST programs gain access to education and career discovery opportunities, connections to exclusive scholarships and employers,
- and a place in the FIRST community for life.
 Visit firstinspires.org/alumni



Feb 26-27

ISR District Event #1 Hadera, Israel

Feb 28-29

ISR District Event #2 Hadera, Israel

Feb 28-Mar 02

Canadian Pacific Regional Victoria, BC Brazil Regional Brazilia, Brazil

Festival de Robotique Regional Montreal, QC

Greater Pittsburgh Regional Pittsburgh, PA

Lake Superior Regional Duluth, MN

Northern Lights Regional Duluth, MN

Regional Monterrey Monterrey, Mexico

South Florida Regional Fort Lauderdale, FL

Utah Regional West Valley City, UT

Feb 29-Mar 02

FIT District Katy Event Katy, TX

FIT District Waco Event

Waco, TX

FIM District Kettering University

Event #1 Flint, MI

FIM District Milford Event Highland, MI

NE District Granite State Event Salem, NH

PNW District Clackamas Academy Event

Oregon City, OR

Feb 29-Mar 03

Hueneme Port Regional Port Hueneme, CA Silicon Valley Regional San Jose, CA

Mar 01-03

CHS District Ashland VA Event Ashland, VA

CHS District Blacksburg VA Event Blacksburg, VA FMA District Hatboro-Horsham Event Horsham, PA FMA District Mount Olive Event Flanders, NJ

FIN District Mishawaka Event Mishawak. IN

FIM District Battle Creek Event Battle Creek, MI

FIM District Berrien Springs Event

Berrien Springs, MI

FIM District Jackson at Columbia Event

Brooklyn, MI

NE District Hartford Event Hartford, CT

FNC District Orange County Event Chapel Hill, NC

PNW District Glacier Peak Event Snohomish, WA

Mar 03-06

Smoky Mountains Regional Knoxville, TN

Mar 05-07

Istanbul Regional Sarıyer, Türkiye

Mar 06-09

Arkansas Regional Searcy, AR Central Missouri Regional Sedalia, MO

Great Northern Regional Grand Forks, ND

Green Country Regional Tulsa, OK

Hudson Valley Regional Suffern, NY

Mar 07-09

FIT District Belton Event Belton, TX

FIM District Belleville Event Belleville, MI

FIM District Escanaba Event

Escanaba, MI

FIM District Kettering University

Event #2 Flint, MI

FIM District St. Joseph Event St. Joseph, MI

PNW District Oregon State Fairgrounds Event

Salem, OR

PCH District Anderson Event presented by MAGNA Anderson, SC

PCH District Dalton Event Dalton, GA

Mar 07-10

For the latest information on these events, visit frc-events.firstinspires.org/

San Francisco Regional San Francisco, CA Ventura County Regional Port Hueneme, CA

Mar 08-10

CHS District Portsmouth VA Event Portsmouth, VA

FIT District Plano Event Plano. TX

FIM District Woodhaven Event Brownstown Charter Twp, MI

FMA District Allentown Event Allentown, NJ

FMA District Seneca Event

Tabernacle, NJ

FIM District Lake City Event

Lake City, MI

NE District BSU Event

Bridgewater, MA

NE District Waterbury Event

Waterbury, CT

FNC District UNC Pembroke Event

Pembroke, NC

ONT District Centennial College

Event

Scarborough, ON

ONT District Newmarket Complex Event

Newmarket, ON

PNW District Auburn Event

Auburn, WA

Bosphorus Regional Sarıyer, Türkiye

Mar 11-12

ISR District Event #3 Hadera, Israel

Mar 13-14

ISR District Event #4 Hadera, Israel

Mar 13-16

Arizona Valley Regional Scottsdale, AZ Central Illinois Regional Peoria, IL

Finger Lakes Regional Rochester, NY

Heartland Regional Shawnee, KS

Magnolia Regional Laurel, MS

Regional Hermosillo Hermosillo, Mexico Sacramento Regional Elk Grove, CA Tallahassee Regional Tallahassee, FL

Mar 14-16

FIT District Fort Worth Event Fort Worth, TX

FIT District San Antonio Event San Antonio, TX

FIM District LSSU Event Sault Ste. Marie, MI

FIM District Muskegon Event Muskegon, MI

FIM District Traverse City Event Traverse City, MI

FIM District Wayne State Event Detroit, MI

NE District URI Event Kingston, RI

PNW District SunDome Event Yakima, WA

Mar 14-17

Los Angeles Regional El Segundo, CA Wisconsin Regional Milwaukee, WI

Mar 15-17

CHS District Glen Allen VA Event Glen Allen, VA

CHS District Severn MD Event

Severn, MD

FMA District Montgomery Event

FMA District Springside Chestnut Hill Event

Philadelphia, PA

FIN District Columbus Event Columbus, IN

FIM District Ann Arbor Event Ann Arbor, MI

NE District North Shore Event

Reading, MA

NE District Pine Tree Event

Lewiston, ME

FNC District UNC Asheville Event

Asheville, NC

ONT District Durham College

Event

Oshawa, ON ONT District Georgian Event

Barrie, ON

PNW District Bonney Lake Event Bonney Lake, WA

PCH District Gwinnett Event

PCH District Gwinnett Ev Lawrenceville, GA

For the latest information on these events, visit frc-events.firstinspires.org/

Southern Cross Regional South Windsor, Australia

Mar 18-20

ONT District Humber College Event Toronto, ON

Mar 19-21

FIRST Israel District Championship

Jerusalem, Israel Haliç Regional Sarıver, Türkive

Mar 20-23

Arizona East Regional Tempe, AZ

Buckeye Regional Cleveland, OH Colorado Regional

Denver, CO

FIRST Long Island Regional

Hempstead, NY Idaho Regional Nampa, ID

Iowa Regional Cedar Falls, IA

New York Tech Valley Regional

Albany, NY Orlando Regional Orlando, FL

Regional Laguna presented by Peñoles

Torreon, Mexico St. Louis Regional St. Louis, MO

Mar 21-23

FIT District Dallas Event Dallas, TX

FIM District Lansing Event

Mason, MI

FIM District Midland Event

Midland, MI

FIM District West Michigan Event

Allendale, MI

ONT District University of

Waterloo Event Waterloo, ON

PNW District Wilsonville Event

Wilsonville, OR

PCH District Carrollton Event Carrollton, GA

PCH District Charleston Event N. Charleston, SC

Mar 21-24

Central Valley Regional Fresno, CA

San Diego Regional presented by Qualcomm

La Jolla, CA

Mar 22-24

CHS District Falls Church VA Event presented by Department of Energy Falls Church, VA

CHS District Owings Mills MD Event

Owings Mills, MD

FIT District Houston Event Houston, TX

FMA District Bensalem Event

Bensalem, PA FMA District Warren Hills Event

Washington, NJ FIN District Plainfield Event

presented by Carrier

Plainfield, IN

FIM District Livonia Event Livonia, MI

FIM District Troy Event #1

Trov. MI

NE District Greater Boston Event

Revere, MA

NE District Western NE Event

Springfield, MA

FNC District Mecklenburg County

Event

Charlotte, NC

FNC District Wake County Event Wake Forest, NC

ONT District North Bay Event North Bay, ON

PNW District Sammamish Event Bellevue, WA

Marmara Regional Sarıyer, Türkiye

Mar 27-30

Las Vegas Regional Las Vegas, NV Midwest Regional Chicago, IL

Monterey Bay Regional Seaside, CA

Orange County Regional Costa Mesa, CA

Mar 28-30

FIT District Amarillo Event Amarillo, TX

FIT District Space City @ Friendswood Event Friendswood, TX

FIM District Kentwood Event Kentwood, MI

FIM District Macomb Community College Event

Sterling Heights, MI

FIM District Central Michigan University Event Mt. Pleasant, MI

FIM District Renaissance Event Detroit, MI

FIM District Troy Event #2

Troy, MI

FIN District Washington Event presented by Toyota Washington, IN

NE District UNH Event

Durham, NH

ONT District McMaster University

Hamilton, ON

ONT District Windsor Essex Great

Lakes Event Windsor, ON

PCH District Albany Event

Albany, GA

Mar 29-31

NE District WPI Event Worcester, MA

Apr 03-06

FIRST In Texas District Championship Houston, TX

New England FIRST District Championship

West Springfield, MA

FIRST Ontario Provincial Championship Mississauga, ON

Pacific Northwest FIRST District Championship Portland, OR

Aerospace Valley Regional Lancaster, CA

Bayou Regional Kenner, LA

Greater Kansas City Regional Lee's Summit, MO

Hawaii Regional Honolulu, HI

Miami Valley Regional Cincinnati, OH Minnesota 10,000 Lakes Regional

Minneapolis, MN Oklahoma Regional Oklahoma City, OK

Rocket City Regional Huntsville, AL

Seven Rivers Regional La Crosse, WI

Apr 04-06

FIRST Mid-Atlantic District Championship Bethlehem, PA

FIRST in Michigan State Championship University Center, MI Peachtree District Championship Macon, GA

Apr 04-07

FIRST Chesapeake District Championship

Petersburg, VA East Bay Regional Berkeley, CA

Minnesota Granite City Regional St. Cloud, MN

New York City Regional New York, NY

Apr 05-07

FIRST Indiana State Championship Lafayette, IN

FIRST North Carolina District State Championship

Greenville, NC April 17-20

2024 FIRST Championship presented by BAE Systems Houston, TX

Abbreviation Key

CHS - FIRST Chesapeake

FIM - FIRST in Michigan

FMA - FIRST Mid-Atlantic

FNC - FIRST North Carolina

FTA - FIRST in Texas

FIN - FIRST in Indiana

NE - New England FIRST

ONT - FIRST Ontario

PCH - Peachtree

PNW - Pacific Northwest

ISR - FIRST Israel

10

Team Number Team School/Organization

Nickname

City

Rookie Year

Canada—North Bay District Event

	D D /V!+!- V-!-			
704	Bruce Power/Kinetic Knights Youth	V!+!- V-!	V'l'	2002
781	Robotics&Family/Community	Kinetic Knights	Kincardine	2002
	Toronto District School Board/Motorola			
	Solutions Foundation/The Optimist Club of			
	Etobicoke/AFA Systems			
	Ltd./Google/Bissell/Landcare/WARP7			
0.05	Parents & Supporters&Western Technical-		-	2002
865	Commercial School	WARP7	Toronto	2002
	Canadore College/Nipissing University/PEO			
	North Bay Chapter/Near North District			
	School Board/General Motors/Enbridge			2220
1305	Gas&Near North Student Robotics Initiative	Ice Cubed	North Bay	2004
	Toronto District School Board/Runnymede			
	CI/Optimist International/Microsoft/Outlook			
	Promotions/The Kingsway Digital			
	Company/KPM Power&Runnymede			
1310	Collegiate Institute	Runnymede Robotics	Toronto	2004
	HDSB Technological Education			
1334	(TE)/Hatch&Oakville-Trafalgar High School	Red Devils	Oakville	2004
	Linear Automation/MPC Molded Precision			
	Components/Weld Experts/Stainless			
	Outfitters/Osborn Model Kits/Black			
	Controls/JT's Powersports/Parks			
	Composites/Maiden Family Auto			
	Care/Creemore Foodland/New Lowell			
	Legion, The Stayner Lions and the Rotary			
	Club of Wasaga Beach./Inzane			
	planet/Clearview			
2013	Township&Family/Community	Cybergnomes	New Lowell	2007
2013	Township&Family/Community General Dynamics Mission Systems	Cybergnomes	New Lowell	2007
2013	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems	Cybergnomes	New Lowell	2007
2013	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge	Cybergnomes	New Lowell	2007
2013	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational	Cybergnomes	New Lowell	2007
	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West		New Lowell	
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group	Cybergnomes Merge Robotics	New Lowell Ottawa	2007
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	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied			
	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School			
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics	Merge Robotics	Ottawa	2009
	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD			
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion	Merge Robotics	Ottawa	2009
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of	Merge Robotics	Ottawa	2009
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael	Merge Robotics Lake Effect Robotics	Ottawa Kingston	2009
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute	Merge Robotics	Ottawa	2009
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute Ontario Power Generation/Renfrew District	Merge Robotics Lake Effect Robotics	Ottawa Kingston	2009
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute Ontario Power Generation/Renfrew District School Board/Deer Fence Canada Ltd/Tony	Merge Robotics Lake Effect Robotics	Ottawa Kingston	2009
2706 2708 2935	General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute Ontario Power Generation/Renfrew District School Board/Deer Fence Canada Ltd/Tony Graham Toyota/Carleton	Merge Robotics Lake Effect Robotics NACI Robotics	Ottawa Kingston Toronto	2009
2706	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute Ontario Power Generation/Renfrew District School Board/Deer Fence Canada Ltd/Tony Graham Toyota/Carleton University&Arnprior District High School	Merge Robotics Lake Effect Robotics	Ottawa Kingston	2009
2706 2708 2935 3543	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute Ontario Power Generation/Renfrew District School Board/Deer Fence Canada Ltd/Tony Graham Toyota/Carleton University&Arnprior District High School John Deere/General Motors/Novelis/Magna	Merge Robotics Lake Effect Robotics NACI Robotics C4 Robotics	Ottawa Kingston Toronto Arnprior	2009
2706 2708 2935	Township&Family/Community General Dynamics Mission Systems Canada/Apple/MVS Remote Video Systems Inc./Collins Aerospace/Enbridge Gas/Northern Lights Educational Services/SolidWorks/Ottawa West Community Robotics & Neighborhood Group Novelis/Queen's University: Faculty of Engineering and Applied Science/Kinarm/Limestone District School Board/Princess Auto/Kingston Robotics Lab&LIMESTONE DISTRICT PUBLIC BOARD Endava Inc/Humber College/North Albion Collegiate Institute/The Rotary Club of Etobicoke/Gurcharan Singh/Michael Widener&North Albion Collegiate Institute Ontario Power Generation/Renfrew District School Board/Deer Fence Canada Ltd/Tony Graham Toyota/Carleton University&Arnprior District High School	Merge Robotics Lake Effect Robotics NACI Robotics	Ottawa Kingston Toronto	2009

Team School/Organization City **Rookie Year Team Number** Nickname

Canada—North Bay District Event

	To the plants of The Circuit and Feed the Island			
	Technologies/The Giovinazzo Family/Shift It			
	Solutions/Team-1 Academy/Comfort First			
	Heating and Cooling/Canadian Tire			
	Dundas/Internet Marketing Geeks/Tegs			
	Tools and Machinery/Turkstra			
	Lumber/Hamilton-Wentworth Catholic			
	District School Board&St. Mary Catholic			
	Secondary School			
	Ionic Mechatronics/Hard-Line Solutions/The			
4000	CCM Group of Companies/General Motors of	La Ellas Dahadas	Conditions	2012
4069	Canada & Lo-Ellen Park Secondary School	Lo-Ellen Robotics	Sudbury	2012
	Kimberly-Clark/Marwood International/Seals			
4450	For Life/McT Construction/Rotary Club of	Harra Dala atian	11	2012
4152	Huntsville&Huntsville High School	Hoya Robotics	Huntsville	2012
	Magna/York Catholic District School			
	Board/TD Synnex & Dell Technologies/Clover			
	Tool Manufacturing Limited/STEM			
	Minds/Town of Aurora/Home			
	Hardware/Rotary Club of Aurora/TACC			
	Developments/Staples - Solution Shop /Antoniette Catenacci (Haute			
	Couture)/BALLUFF/Irwin Industrial/Optimist			
	Club of Aurora/Princess Auto&St Maximilian			
4343	Kolbe Catholic High School	MaxTech	Aurora	2012
4343	Halton District School Board Technical	IVIAXTECTI	Autora	2012
	Education, Pathways and SHSM/Craig			
	Kielburger Secondary School			
	Hospitality&Craig Kielburger Secondary			
4992	School	Sparbotics	Milton	2014
4332	ABC Technologies/BMP Metals/Samuel	Sparbotics	WIIICOTT	2014
	Steel/Taylor Steel/IUOE (Local 793)/HATCH			
	Canada/Halton District School Board&Garth			
5409	Webb Secondary School	Chargers	Oakville	2015
	Metal Supermarkets/Microsoft/RBC Wealth			
	Management PH&N/Bridging Finance			
	Inc./Argosy Foundation/Jazz			
5672	Solar/TestMark&Wikwemikong High School	First Nations-STEM	Wiikwemkoong	2015
	Precision Stamping Group/Centreline			
	(Windsor) Ltd./Windsor Salt/St. Clair			
	College/U OF W, Faculty of Science/ONYX			
	Engineering Ltd/MEDA Limited Engineering &			
	Technical Services/Integrity Tool & Mold&St.			
5885	Thomas of Villanova	Villanova WiredCats	Lasalle	2016
	Safran /Ontario Power			
	Generation/Enbridge/Peters Sterling			
6110	Inc/GM&Archbishop Denis O' Connor	Doc Botics	Ajax	2016
	RBC Wealth Management PH&N Investment			
6514	Counsel&SUTTON DISTRICT HIGH SCHOOL	Sutton Robotics League	Sutton West	2017
	Ontario Power Generation/RBC Wealth			
	Management/Agrosy/Muskoka Turf and			
	Property Management/Riverside			
6859	Dental/Town of Bracebridge/Dr	BML Robotics	Bracebridge	2018

Team Number

Team School/Organization

Nickname

City

Rookie Year

Canada—North Bay District Event

	Hotson/Bracebridge Rotary Club/Bracebridge			
	Agricultural Society/Fowler's Construction			
	Company Limited/Bracebridge Lions			
	Club/Knowles Plumbling&Bracebridge and			
	Muskoka Lakes Secondary School			
	Magna/Ontario Power Generation/Town of			
	Gravenhurst/Honda			
	Canada/PuroClean/Gonneau Building			
	Group/100 for \$100 donors/Boone			
	Plumbing/Buckley & Associates/Mr.			
6864	Sub/Dominoes & Gravenhurst High School	Gryphtech Robotics	Gravenhurst	2018
6.0	Providence Bay/Spring Bay Lions			
	Club/McMaster Engineering/Manitoulin			
	Transport/Gene Haas Foundation/Township			
	of Central Manitoulin/RBC Wealth			
	Management PH&N Investment			
	Counsel/Little Current Medical			
	Associates/Henderson Electric			
	Manitoulin/Dairy Farmers of Canada/Rastall			
	Not & Bolt Co./Huron Sands Motel/Bear			
	Little Current Restaurant/Central Manitoulin			
	Lions Club/Complete Auto/Lyons Memorial			
	Unit Church/Island Promotional			
	Products/Steele Home			
	Hardware/Manitowaning Home			
	Hardware/Studica Canada/Henley			
	Boards/Corbiere Enterprises&Manitoulin			
6865	Secondary School	Manitoulin Metal 6865	M'Chigeeng	2018
	Make Stuff Move/Omni Evolutions/CNC			
	Profiles/Daylight Diner/Tri Lake			
	Surveys/RBC/Trillium Lakelands District			
	School Board&Fenelon Falls Secondary			
6987	School	Falcon Automation	Fenelon Falls	2018
	Marvell/NRC Teleresources/Dentons/Rotary			
	Club of Kanata/Palladium			
	Insurance/Posit/Metal Pros/Sticker			
7476	Giant&Earl of March Secondary School	Aureus	Kanata	2019
	2019 Argosy Foundation FRC Rookie			
	Grant/Novelis Inc./FIRST Canada/Retired			
	Teachers of Ontario/Electro-			
	meters/iStorm/QFRC/Server			
7480	Cloud&Family/Community	Machine Mavericks	Kingston	2019
	Hobart Owen Sound/Hydrogen			
	Optimized/Bruce Power/Common Grounds			
	Café/Bruce-Grey Catholic District School			
7757	Board&St. Mary's High School	Atomic Dishwashers	Owen Sound	2019
	Leonardo DRS/Bell Mobility/intact			
	Insurance/Ross Video/Kirality Drones/Jaimac			
	Risk Management/Solidworks/Argosy			
	Foundation/National Research Council			
	Canada & Family/Community & Spark Youth			
8729	Robotics Club	Sparkling H2O	Kanata	2022

Team Number Team School/Organization Nickname City Rookie Year

Canada—North Bay District Event

8731	Lindsay Buick GMC/BASF/CARStar/Centerline /FIRST Robotics FRC Registration Grant/CUSW - Canadian Union of Skilled Workers Local /The Rights Company/Thermoseal Kawartha Lakes&I.E. Weldon Secondary School	Wild WYRE	Lindsay	2022
	Marvell/NRC Teleresources/Dentons/Rotary			
	Club of Kanata/Palladium			
	Insurance/Posit/Metal Pros/Sticker			
9127	Giant&Earl of March Secondary School	Lioneers	kanata	2023
9589	Mackenzie Community School	MCS Innovators	Deep River	2024
9592	Timmins High & Vocational School	Timmins Blues	Timmins	2024

2024 North Bay District Event Schedule

Day 0 - March 22

4:30pm Pits Open, Inspections

5:30pm 8:00pm Filler Line Practice Matches

9:00pm Pits Close

Day 1 - March 23

8:00am Pits Open, Inspections

8:30am Drivers meeting

9:15am 10:45am Practice Matches

11:00am Opening Ceremonies

11:30am 1:30pm Qualification Matches

1:30pm 2:30pm Lunch

2:30pm 7:00pm* Qualification Matches

8:00pm Pits Close

Day 2 - March 24

8:00am Pits Open

9:00am 9:30am Opening Ceremonies

9:30am 12:45pm* Qualification Matches

1:00pm 1:30pm Alliance Selections

1:30pm 2:30pm Lunch

2:30pm 5:30pm Playoff Matches

5:30pm** 7:00pm Awards / Closing

Ceremonies

7:30pm Pits Close

*Schedule subject to change. All times are estimated based on flow of rounds. See Pit Administration table for updated times.

Judges

Led by Our Judge Advisors:

John Smith

Managing Consulting
Pensare Consulting Group

Chris Breadner

Research and Development Team Leader Baylis Medical Technologies

Barry Clout

Communications Analyst
Emergency Services
Telecommunications Division Government of Ontario

Bill Asselstine

Vice President Technical, Sustainability and Safety (Retired) St. Marys Cement

Chirag Savaliya

Technical Specialist WipWare Inc

Dan Boulanger

Instructor
Canadore College

Dan Lagrandeur

Sr. Electrical Designer Redpath Raiseboring Limited

Daniel Bilzer

Mechanical Engineer in Training DEI Consulting Engineers

Gary Page

Principal Designer
Page Graphics

Glenn Brophey

Associate Professor Nipissing University (School of Business)

Jason Hawken

Director Technology Enablement Group – Client & Graphics AMD

Jill Boisvert

Tax Analyst Redpath Mining Inc.

John Shaw

Adjunct Professor
Ontario Tech University

Kelly Shambrook

Material Coordinator Redpath Mining Inc.

Kelly Stewart-Belisle

CyberSecurity Delivery Executive DXC Technologies

Lawrence Lupton

Nuclear Engineer (Retired) Atomic Energy of Canada Limited

Lesley Hamilton

Registered Nurse The Hospital for Sick Children

Marc St-Georges

Teacher (Retired)

Meghan Clout

Communications & Engagement Director Water Watchers

Molly O'Grady

Manager, Customer Success iLobby

Rachel Cranford

Business Centre Operations Leader Stantec

Thomas Palangio

Chief Technology Officer WipWare Inc

Get Involved!

Form a Team...

- Learn from engineering pros.
- Apply math and science concepts to design and build robots.
- ☐ Gain hands-on experience solving real-world problems.
- ☐ Learn about exciting science and technology careers.
- Make new friends.

Be a Volunteer...

- Become a mentor.
- Organize an event or program.
- Assist at a competition.
- ☐ Make a difference in young lives.

Contact: jaeleen.koscielski@firstroboticscanada.org

Become a Team or Regional Sponsor...

- □ Provide financial support, equipment, parts, facilities, internships, or other services.
- Offer scholarships.
- Encourage employees to mentor or volunteer.
- Host an event.
- Build community goodwill.
- □ Inspire employees.
- ☐ Help build a technical workforce.

Contact: arti.javeri@firstroboticscanada.org





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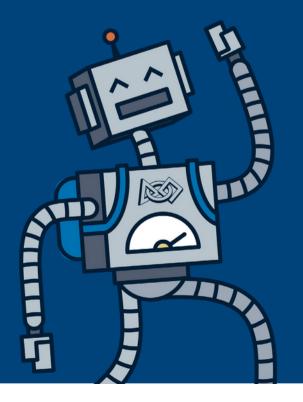
The 2024 FIRST® Championship starts April 17

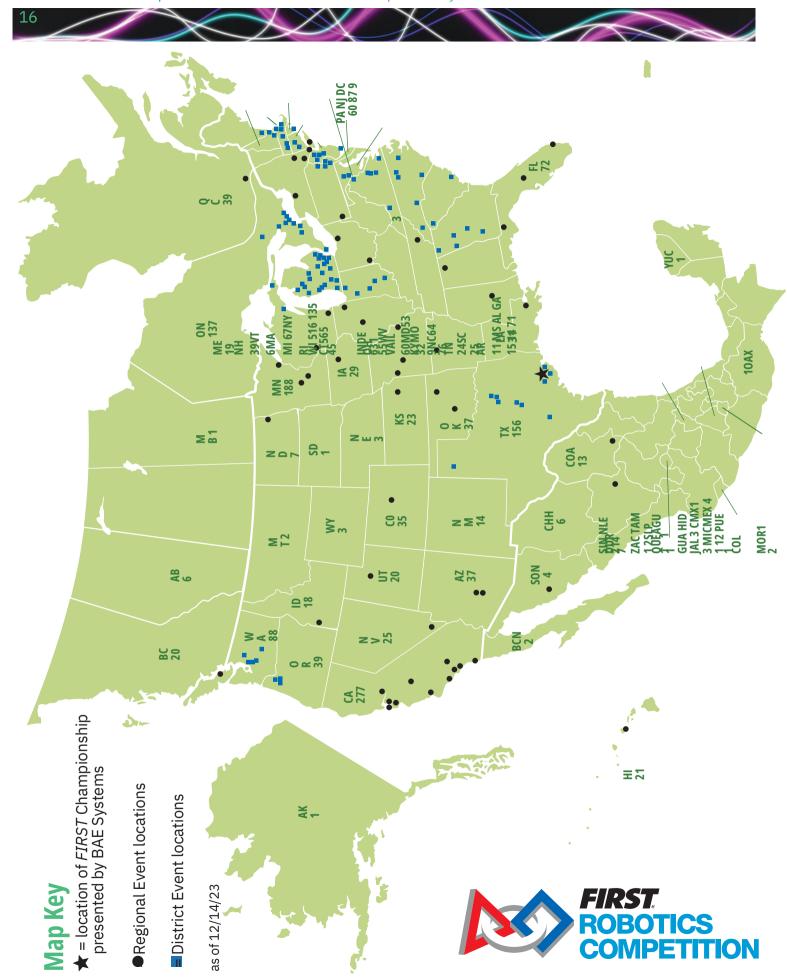
Pack your bolts, bots, and bags!

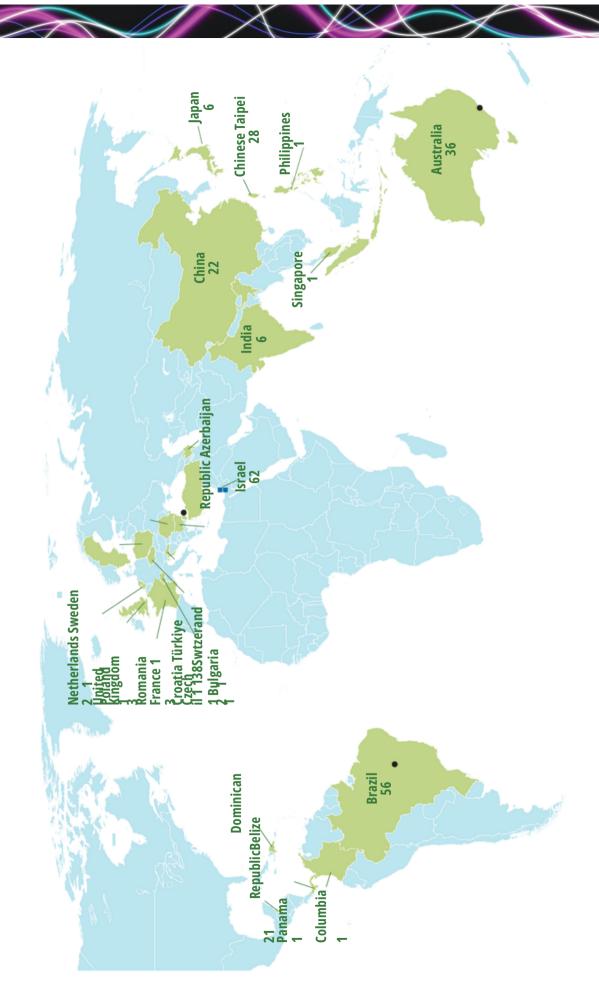
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2024 North Bay District Event

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FIRST Volunteers Inspiring the Future Since 1992

The North Bay District Event relies on dedicated volunteers and appreciates the contribution of time from everyone who participates. From the expertise of veteran volunteers who return year after year, to the enthusiasm of first-timers, volunteers are the critical component that make our events successful. A special thank you to the members of the North Bay District Event planning committee, who work tirelessly to plan this event each year.

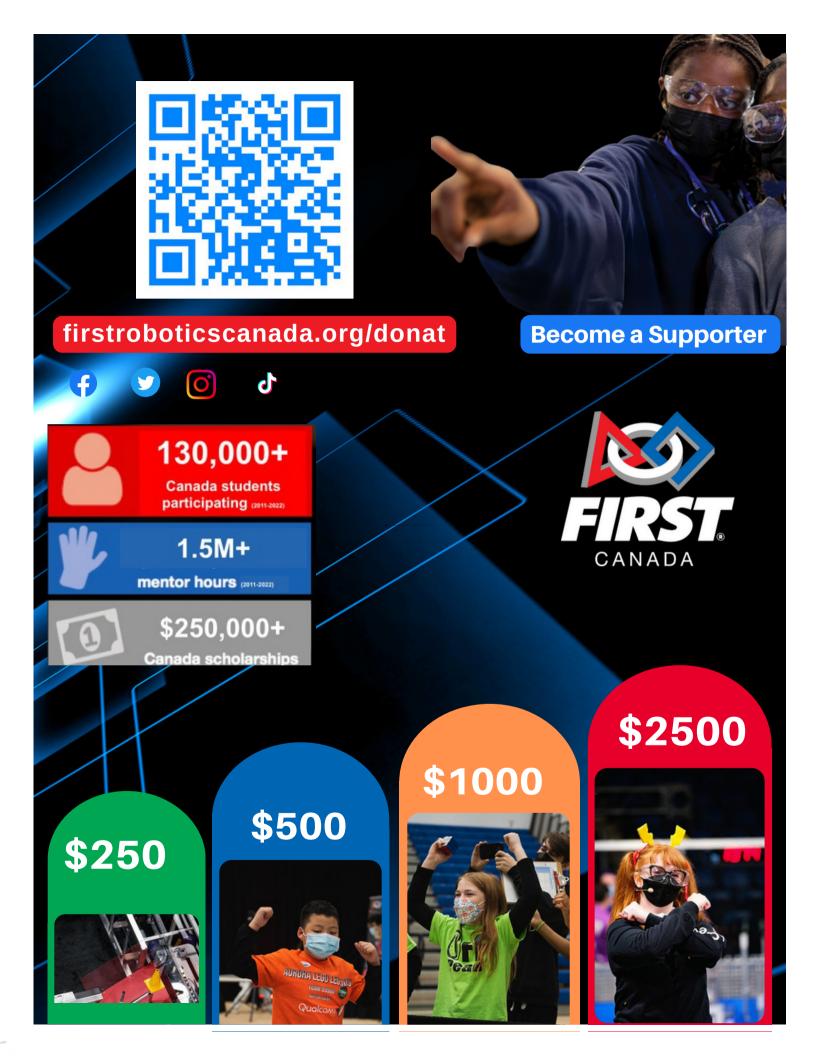












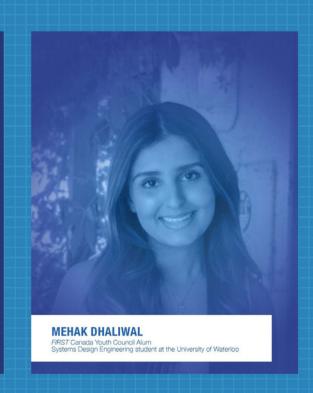




Participants and alumni of *FIRST* programs gain access to education and career discovery opportunities, connections to exclusive scholarships and employers, and a place in the *FIRST* community for life.

firstroboticscanada.org/get-involved/alumni/

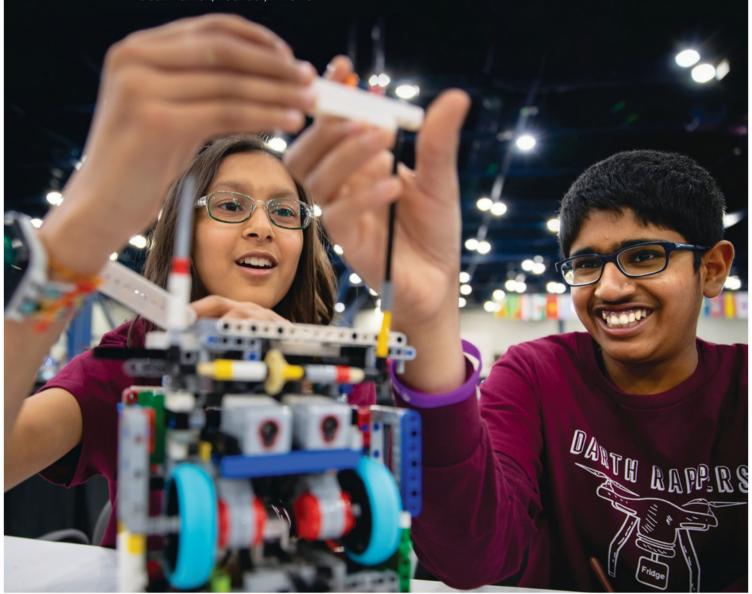
I remember reading "FIRST is more than robots" on the website as I registered for my robotics team. Being new to FIRST, I did not understand the meaning behind it. Now 7 years later, as a FIRST Alumni, this phrase defines my journey. For myself, FIRST is about community. I have made long-lasting friendships and acquired many skills that make me the leader I am today. As an alum, I'm able to witness just how far the FIRST community extends, and network you gain access to. There is this automatic bond when you know someone who has also gone through the FIRST program. My time as a FIRST participant helped reinforce my values and inspired me to purse a career in Engineering at the University of Waterloo.





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

- Dean Kamen, Founder, FIRST®





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Silver

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Bronze

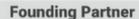








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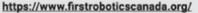












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