

**1st Canada**

# FIRA RoboWorld Cup Open Competition 2024

Qualification of for FIRA Brazil World cup

 **18th - 19th May 2024**

 **Simon Fraser University  
Surrey Campus, BC, Canada**

 **[canada.firaworldcup.org](http://canada.firaworldcup.org)**

## Organizers



*Enjoy Robot*

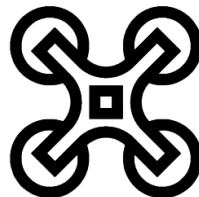
*Enjoy Life*



**FIRA CHALLENGE**



**FIRA SPORTS**



**FIRA AIR**



**FIRA YOUTH**

# 1st Canada FIRA RoboWorld Cup

## Open Competition 2024

18<sup>th</sup> – 19<sup>th</sup> May 2024, Vancouver, Canada

### *Qualification for the World Robotics and Artificial Intelligence Competition FIRA 2024 Brazil*

The Federation of International RoboSports Association (FIRA) Canada and [Canadian National Robotic Society \(CNRS\)](#) extend a warm invitation to both seasoned participants and newcomers to join us for the 1st Canada FIRA RoboWorld Cup Open Competition 2024 in Vancouver, Canada. Scheduled to take place from the 18th to the 19th of May 2024. As you join in on the exciting adventure of robotics excellence at the FIRA Cup Canada 2024 in Vancouver this March, get ready to witness teams from Canada and beyond showcasing their skills in robotics, problem-solving, and teamwork.

FIRA stands as the pioneering force in intelligent robot soccer competitions, established by Prof. Jong-Hwan Kim of KAIST, Korea, in 1996. FIRA's mission encompasses three core objectives: (a) providing challenging benchmarks for cutting-edge research in intelligent robotics, (b) equipping senior students with invaluable skills and experiences important for their careers in the modern economy, and (c) introducing junior students to the foundational principles of STEAM subjects (Science, Technology, Engineering, Art, and Math).

Dedicated to nurturing innovation, collaboration, and excellence within the Canadian robotics landscape, CNRS empowers the local robotics community. Our vision is to cultivate a platform for knowledge exchange, skill enhancement, and technological breakthroughs, thereby positioning Canada at the forefront of the global robotics arena.

Envisioning a future where robotics assumes a central role in shaping a sustainable and technologically advanced society, CNRS strives to foster a vibrant community comprising roboticists, researchers, and enthusiasts. Through strategic partnerships and ongoing learning endeavors, CNRS endeavors to propel Canada into a leadership role in the continually evolving field of robotics.

You are invited to join us for this amazing experience, where the latest in technology will be the star. Save the date for May 18th to 19th, 2024, and be part of the exciting celebration of the FIRA Cup Canada, where amazing things happen!

The 1st Canada FIRA RoboWorld Cup Open Competition will include the following leagues:

- [FIRA AIR](#), which includes [Autonomous Race](#), [Autonomous Race U19](#), [Emergency Service Outdoor](#), and [Emergency Service Indoor](#), focuses on the use of autonomous flying vehicles in urban and disaster scenarios.
- [FIRA Challenges](#), which encompass [Autonomous Cars](#), Autonomous Cars Simulation, [Innovation and Business](#), [Innovation and Business U19](#), and [Home Simulation U 19\\*](#), focuses on complex challenges in industrial, rescue, and service robot settings.

\*An online-only event with no need for in-person attendance, represents a cutting-edge convergence of robotics and computer programming. It challenges student teams to engineer sophisticated algorithms for robotic vacuum cleaners, providing a dynamic simulation platform that encourages advanced skills in coding and a deeper understanding of robotic applications in practical environments.

- [FIRA Youth](#), which includes [Cliff Hanger](#), [DRC-Explorer](#), [Mission Impossible](#), and [Sports Robots](#), comprises competitions for our younger participants, such as the Mission Impossible events.
- [FIRA Sports](#), Please contact us to take part in this league.

Friendly competitions within the 1st Canada FIRA RoboWorld Cup Open Competition 2024 provide all participants with the opportunity to create new friendships and gain insights from one another.

## Important Dates

<b>April 14, 2024</b>	Deadline for submission of qualification material
<b>May 15, 2024</b>	Notification to qualified teams
<b>March 1st to 20th, 2024</b>	Deadline for early-bird registration
<b>March 21st to April 15th, 2024</b>	Deadline for regular registration
<b>April 16th to May 5th, 2024</b>	Deadline for late registration
<b>May 17th to May 18th</b>	Online simulation competition
<b>May 18th to 19th, 2024</b>	1st Canada FIRA RoboWorld Cup Open Competition 2024

## Qualification

All participating teams for the current year are required to submit a Team Description Paper (TDP). The TDP must not exceed 6 pages and must be submitted in English in PDF format. This document serves to comprehensively outline the scientific aspects of your robot system and your research interests. It should include a summary of previous relevant achievements in research and development, along with publications, and, if available, mention prior performance in FIRA competitions.

Kindly submit your TDP to the designated email address provided below before the specified deadline:

[infocanada@firaworldcup.org](mailto:infocanada@firaworldcup.org)

## Awards

The first, second, and third places in the competition qualify for the World Robotics and Artificial Intelligence Competition FIRA 2024 Brazil. Additionally, the best teams will also receive awards.

## 1st Canada FIRA RoboWorld Cup Open Competition Venue

The 1st Canada FIRA RoboWorld Cup Open Competition will take place at the Simon Fraser University - Surrey Campus, located at 13450 102 Ave #250, Surrey, BC V3T 0A3.



Photo of Simon Fraser University (SFU) at Central City, taken from SFU Website: <https://www.sfu.ca/surrey/about/our-locations/sfu-at-central-city.html>

## **FIRA Canada Frontiers Camp (FCFC)**

**17<sup>th</sup> – 19<sup>th</sup> May 2024, Vancouver, Canada**

The FIRA Canada Frontiers Camp (FCFC), scheduled to coincide with the FIRA Cup Canada 2024, presents a unique opportunity for participants to acquire foundational knowledge in robotics. The program places emphasis on essential problem-solving techniques, system development, testing, and debugging. This year's FIRA Frontiers curriculum will focus on instructing students in physics, coding, control systems, and software design within the domain of autonomous drones. Moreover, students will gain insight into the application of their robotics skills across various disciplines.

It is important to note that the primary objective of the camp is not to directly enhance participants' prospects of winning subsequent FIRA competitions. In fact, instructors and mentors will minimize their involvement in upcoming FIRA competitions and refrain from offering strategies or hints for future events.

The FIRA Frontiers Camp does not focus on one particular robot kit. Instead, it tries to use open-source software and hardware whenever it can.

### **Important Dates**

<b>April 14, 2024</b>	Deadline for submission of qualification material
<b>May 15, 2024</b>	Notification to qualified teams
<b>March 1<sup>st</sup> to 20<sup>th</sup>, 2024</b>	Deadline for early-bird registration
<b>March 21<sup>st</sup> to April 15<sup>th</sup>, 2024</b>	Deadline for regular registration
<b>May 16<sup>th</sup> to 17<sup>th</sup>, 2024</b>	FIRA Canada Frontiers Camp (FCFC)
<b>May 18<sup>th</sup> to 19<sup>th</sup>, 2024</b>	Mission Impossible competition in the 1st Canada FIRA RoboWorld Cup

## Qualification

All participants must submit their own qualification material in English. Please write a 1–2-page account describing your past experiences, your current robot system and development setup, and your enthusiasm for robotics. Additionally, include personal information such as your name, school, address, phone number, email address, etc. Submit your material as a PDF file to the designated email address provided below before the specified deadline:

[infocanada@firaworldcup.org](mailto:infocanada@firaworldcup.org)

It is important to note that registering for the FCFC does not require participation in the FIRA Cup Canada 2024. No specific background is necessary, as this program is designed to help participants learn the fundamentals of robotics. Additionally, participants in FCFC have the opportunity to take part in the [Mission Impossible](#) competition, and there is no additional fee for it.

## FIRA Canada Frontiers Camp Venue

Workshops and classes will take place at 201-1678 W Broadway, Vancouver, BC, Canada V6J 1X6.

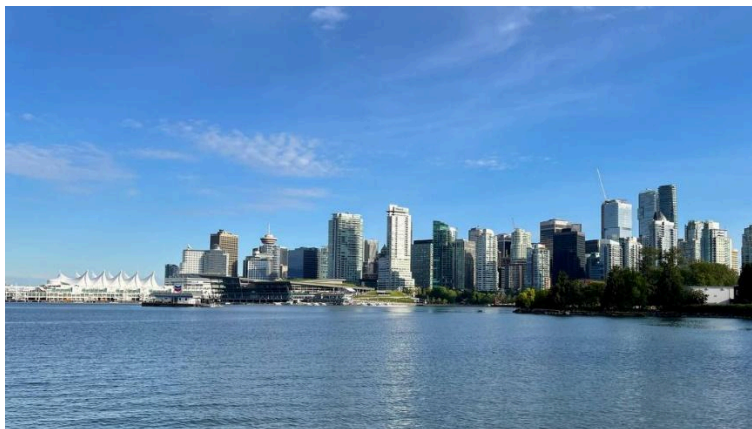
The Mission Impossible competition will be hosted at Simon Fraser University - Surrey Campus, located at 13450 102 Ave #250, Surrey, BC V3T 0A3.

## Venue and Competition Schedule

- 17th – 19th May: FIRA Canada Frontier Camp (FCFC)
- 18th May: Set-up & registration for FIRA Cup Canada 2024
- 18th May: Opening ceremony
- 18th – 19th May: Competition (detailed schedule will be announced)
- 19th May: Closing (Victory) Ceremony

## Travel

Vancouver is a vibrant coastal city situated on the west coast of Canada, known for its stunning natural beauty and bustling urban atmosphere. The city is surrounded by the Pacific Ocean and the Coastal Mountains, offering breathtaking views and outdoor recreational opportunities. The city is also a hub for technology and innovation, attracting entrepreneurs and researchers from various fields. Stanley Park is a big park in Vancouver with trails, trees, and views of the water. The city also has cool neighborhoods like Gastown and Yaletown, each with its own style. If you want to see more, Vancouver is a starting point for adventures in British Columbia, like visiting islands and seeing the Rocky Mountains. Vancouver is easily accessible by air, with Vancouver International Airport serving as a major transportation hub. Additionally, the city is well-connected by rail and road networks, making it convenient to travel to and from other major cities in Canada and the United States.



## Accommodation

Numerous hotels are conveniently located near the venues for the FIRA Canada Frontiers Camp and FIRA Cup Canada 2024. For assistance in finding a suitable and convenient location for your stay, please contact us at [infocanada@firaworldcup.org](mailto:infocanada@firaworldcup.org). We are here to make sure you have a comfortable stay.

## Registration fee

Category	Early bird registration fee by 14th April, 2024	Regular registration fee from March 21st to April 15th, 2024	Late registration fee from April 16th to May 5th, 2024	Additional member	Condition
Challenge/ Air (Student older than 19 years old)	680 CAD	750 CAD	850 CAD	250 CAD	1 coach/1 to 4 members
FIRA Youth and all U 19 leagues	160 CAD	200 CAD	250 CAD	–	1 to 4 members
Youth coach/Parents	100 CAD	150 CAD	200 CAD	–	Each coach/Parents
Home Simulation U 19	40 CAD	60 CAD	80 CAD		Each member
FIRA Frontiers Camp Participant	880 CAD	920 CAD	980 CAD	–	Includes registration and teaching materials for each member

## **More information**

<https://canada.firaworldcup.org/>

## **More information on the FIRA Canada social medias**

<https://www.instagram.com/cnrs.ngo/>

[https://www.instagram.com/fira\\_canada/](https://www.instagram.com/fira_canada/)

## **Contact**

Please contact us at [infocanada@firaworldcup.org](mailto:infocanada@firaworldcup.org)

# FIRA Robo World Cup

Join FIRA now and embark on a journey of growth and innovation together.



**FIRA**



**CNRS**



**Join FIRA discord**

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[WWW.CANADA.FIRAWORLDCUP.ORG](http://WWW.CANADA.FIRAWORLDCUP.ORG)