

PARTNERSHIP PROGRAM 2024-2025

AUTONOMOUS ROBOTIC SOCCER CLUB

NAOVA

École de Technologie Supérieure
1100 Notre-Dame Ouest





ABOUT US

Naova is an international autonomous robotic soccer team, proudly representing Canadian skills in engineering at the annual RoboCup competition. Such a large project is remarkable and can only be made possible with our dedication and the support of our partners. Imagine how much more we can achieve by having you as a partner! Algorithms, artificial intelligence optimized for small computers, on top of individual and team strategies are our daily challenges to ensure we score as many goals as possible while avoiding penalties.

OBJECTIVES

- Implement machine learning more and more in multiple aspects of our project. The goal is to improve ball detection and opponent detection using our robots' vision.
- Increase the walking speed of the robots during movement.
- Creation of an event-based communication system.
- Development of a robust team strategy.
- Creation of a sound-based communication system.



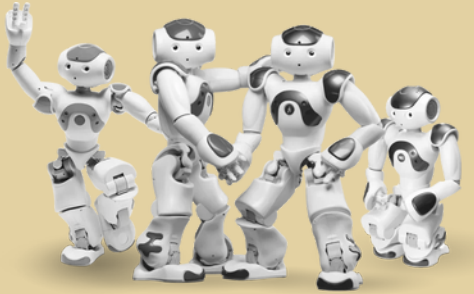
THE COMPETITION : ROBOCUP

Robotics and process automation have become major factors in all business sectors. One of the main issues affecting modern businesses is the shortage of qualified specialists in data processing, programming, IT, and software engineering.

The Naova scientific club from ÉTS participates annually in a robotics competition known as the RoboCup, an international scientific initiative whose goal is to progress in artificial intelligence (not only for the industrial sector but all technology sectors).

The RoboCup is one of the largest international competitions of its kind, bringing together future specialists who are passionate about computer science, and automation, and who voluntarily invest their time and effort to perfect themselves in their respective fields. Consequently, Naova ÉTS and its members proudly represent Canada as the first Canadian team in the "Soccer: Standard Platform League" division.

OUR PROJECTS



VISION

Perception of the environment

We use machine learning algorithms to detect the ball, other robots, and various field elements.



WALKING CONTROLLER

Conception of a walking controller

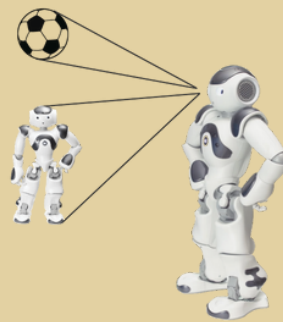
With the help of researchers at ÉTS, we are developing a walking controller for the robots. The controller helps to stabilize the robots during rapid movements.



BEHAVIOR

Define the strategies

We are working on team strategies such as passing skills, role management, and even more.



COMMUNICATION

Establish communication

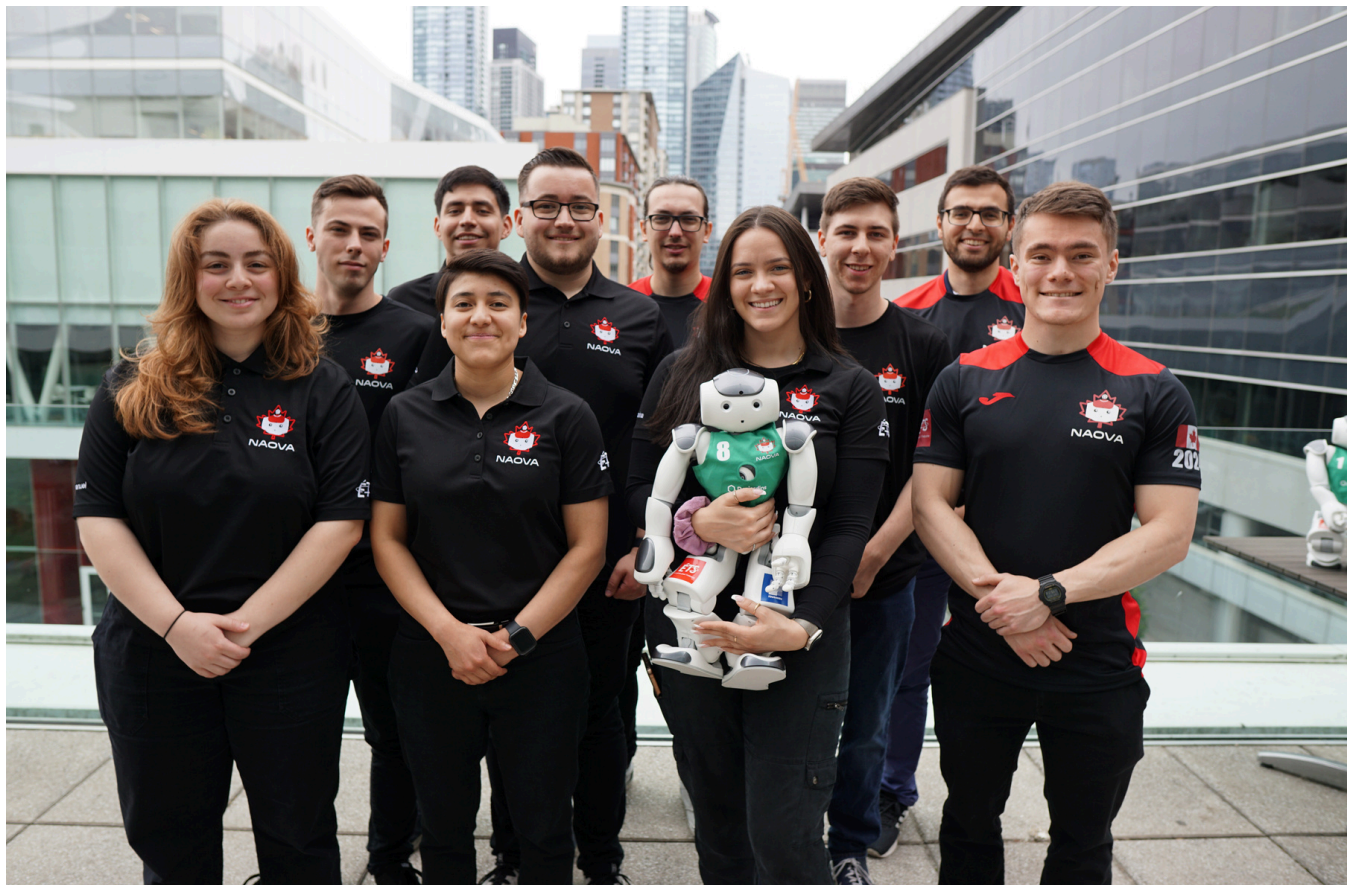
We are developing inter-robot and robot-computer communication via WIFI connection and eventually sound.



COMPETITION

Robocup!

Every year we participate in the RoboCup, the largest international robotics competition!

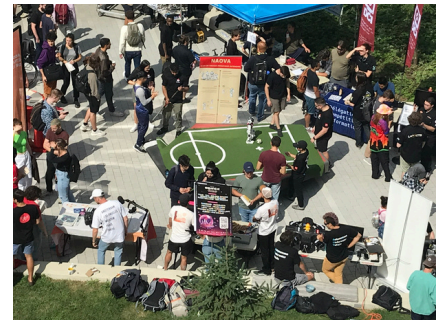
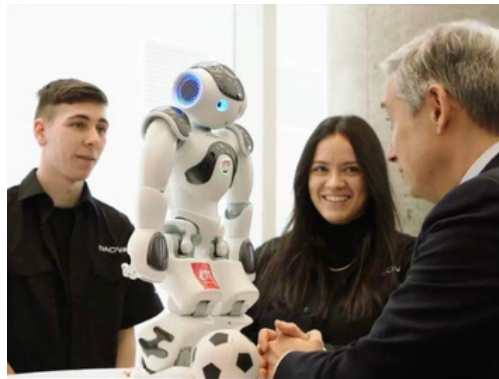
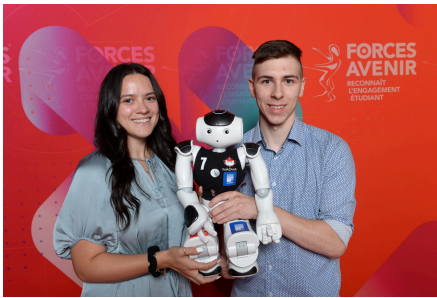


2024-2025 NAOVA TEAM

The Naova University scientific club seeks to help its members surpass their abilities. Through their involvement in daily club activities, the members acquire valuable knowledge to become better robotics specialists, a critical sector in multiple industries of our economy. The international competition aims to promote educational and technological advancement among its participants.

Every year Naova aims to recruit new passionate members motivated by robotics and science. This allows us to prepare the next generation for years to come and ensure success and transfer of knowledge within the club. We promote team cohesion and harmony between members of the club through team bonding activities and planned days where members meet each other and work together (called Devday).

During 2024 we had the opportunity to participate in two competitions. In fact, 8 members headed to Germany to attend the German Open and in the Netherlands for RoboCup 2024.



OUR EVENTS

Naova wishes to get involved in the community by participating in events to raise awareness and encourage future generations to continue their studies in science and engineering. Our annual competition focuses on the future of robotics, while we look out for the accessibility and potential of every coming generation. This is why Naova is involved in different kinds of events to foster curiosity in younger students, to impact the future of robotics, and to give new students at ÉTS the opportunity to participate in a complex robotics project. All these events allow us to reach over 13,000 people.

Here are some of the events in which we participated in 2024-2025:

- “5 à 7” with international students
- Science club day
- Pizza lunch with departments
- Forces AVENIR Gala
- G-Change
- ÉTS open doors
- ADRIQ Gala
- Events with Desjardins Caisse des Technologies
- Welcoming a French delegation to ÉTS
- Event with Réseau ÉTS for alumni

PARTNERSHIP




































Since we work in a sector in full development and a league requiring specific robots, we need periodic financial support to keep our project going. Most of our sponsorships help us pay for our robots, which are the centerpiece of our club. A single supplier sells these robots, and we cannot manufacture them ourselves, so our main needs are financial funding. The rest of our sponsorships help us with the cost associated with displacements to our international competitions which are quite costly.

We acquired partners from the business community to keep up with the technological advancements, By participating, you support future engineers in their academic and professional development. Your contribution will grant you advantageous visibility within the student population of ÉTS and the robotics community. Our club offers the opportunity to support a dynamic team that will perform thanks to your encouragement in a key industrial field. Our proposed partnership has many corporate benefits. By sponsoring our club, you benefit from a unique visibility program (see the Appendix at the end of this document). In the case of a charitable donation, you are eligible for a tax deduction credit in addition to our thanks.

Additionally, investing \$3,000 or more in the next generation of engineers involved in technology may double your corporate reach. You will be presented with an "Award of Excellence" at the annual scholarship award ceremony of the ÉTS Development Fund. You will thus obtain additional visibility offered by our scientific club and the "Service aux diplômés et à la philanthropie", our university foundation. To view details on the FDÉTS visibility, see the appendix at the end of this document. Your company will benefit from an outstanding brand image among the university community, students, graduates, ÉTS industrial partners, and the general public, in addition to a simplified recruiting opportunity for trainees and engineers.

For additional details, please contact the "Service aux diplômés et à la philanthropie" by email at clubspartenariats@etsmtl.ca or by phone at [\(514\) 396-8990](tel:5143968990).

VISIBILITY SCALE

| | Bronze ≥ 500\$ | Silver ≥ 1500\$ | Gold ≥ 3000\$ | Platinum ≥ 5000\$ | Diamond ≥ 7000\$ |
|---|---|--|---|---|---|
| Letter of thanks |  |  |  |  |  |
| Your logo on our partnership banner displayed at our events and competitions |  |  |  |  |  |
| Your logo, with hyperlink, on the partnership section of our website |  |  |  |  |  |
| Thanks and a mention in the articles published on our website and our social media profiles | |  |  |  |  |
| Your logo on our promotional clothing worn during our competitions | |  |  |  |  |
| Your logo on our robots | | |  |  |  |
| Prix d'excellence and visibility from the SDP (> 3000\$) | | |  |  |  |
| Your logo on the main page of our website | | |  |  |  |
| Your logo on the shirts of our robots | | | |  |  |
| Primary sponsor (Benefits to be discussed with the team) | | | | |  |

LINKS AND INFORMATION

To sponsor Naova : [Sponsor form](#)

To donate* : [Donation form](#)

Service aux diplômés et à la philanthropie, clubspartenariats@etsmtl.ca

Phone: (514) 396-8990

Naova : naova@ens.etsmtl.ca



*: DONATING MONEY OR EQUIPMENT MAY QUALIFY FOR AN OFFICIAL CHARITABLE DONATION RECEIPT. HOWEVER, IT MUST HAVE BEEN DONE VOLUNTARILY, BE THE SUBJECT OF NO CONTRACTUAL AGREEMENT AND GIVE NO ACCESS TO ANY BENEFIT, NEITHER FOR THE DONOR NOR FOR A THIRD PARTY. AN OFFICIAL DONATION RECEIPT COULD PROVIDE ACCESS TO NON-REFUNDABLE TAX CREDITS ACCORDING TO THE LAWS IN EFFECT AT THE TIME OF THE TRANSACTION. THIS MENTION IS FOR GUIDANCE ONLY AND CAN NOT BE CONSIDERED AS A GUARANTEE OF TAX DEDUCTIONS WHEN FILING YOUR RETURNS. FOR MORE INFORMATION, VISIT THE CANADA REVENUE AGENCY WEBSITE AT [HTTP://WWW.CRA-ARC.GC.CA](http://www.cra-arc.gc.ca)