



PARTNERSHIP PLAN 2025

INTRODUCING S.O.N.I.A.

S.O.N.I.A, the autonomous submarine club at École de Technologie Supérieure is celebrating its 25th anniversary in the field of underwater robotics. The team, composed of approximately twenty members, excels in crafting autonomous submarines that integrate cutting-edge technologies.

What sets S.O.N.I.A. apart, beyond their technical expertise, is their commitment to sharing knowledge and engaging with the community. Their philosophy is rooted in collaboration and sharing.

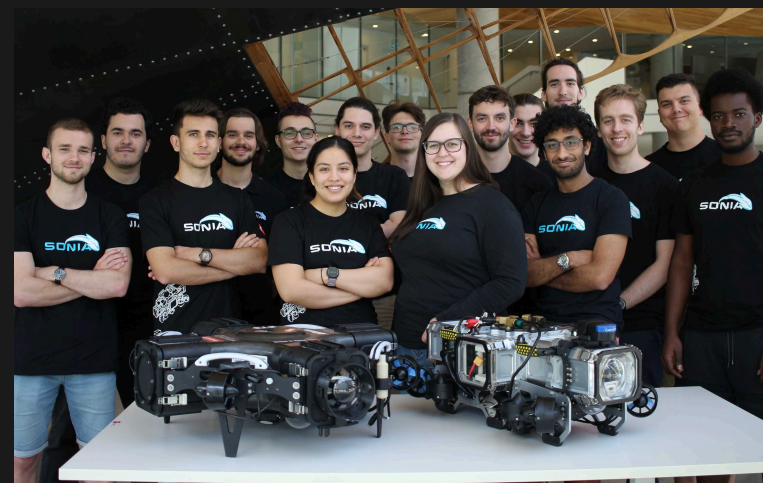
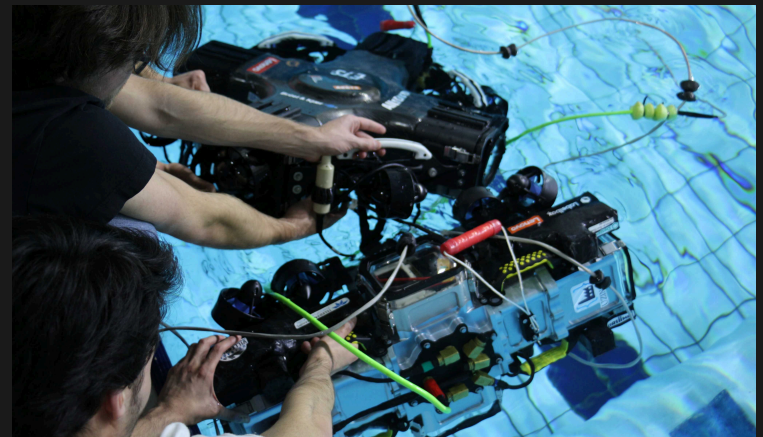
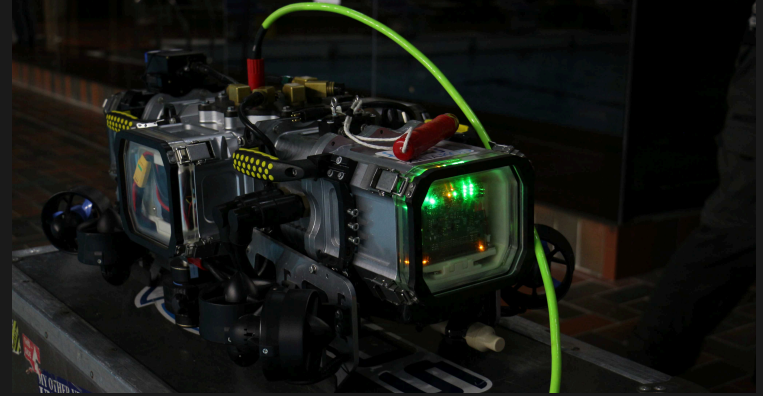
The club's presence on Github, the sharing of artificial intelligence training data, and the online documentation made available to the community all reflect this philosophy. The collaborative approach is supported by the work of three sub-teams: mechanical, electrical and software.

The Team

The mechanical team is responsible for the design and manufacture of the submarine's hull, internal support systems, and external attachments. Their expertise is crucial in ensuring the watertightness and robustness of the prototypes.

The electrical team focuses on designing, manufacturing, and integrating the power distribution, motor control and internal communication systems, ensuring that the vehicles run smoothly.

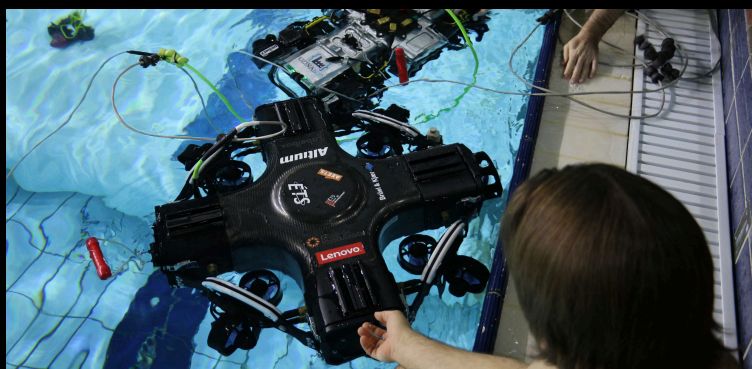
The software team manages the overall functionality by programming the onboard systems that give the submarines their autonomy and control. In addition, by using an artificial intelligence system, S.O.N.I.A. is able to produce autonomous underwater vehicles ready to compete in an international competition.



Our Submarines

Prototype AUV7

Introduced in 2017, AUV7 marked the club's pioneering venture into a cross-haped submarine design. This unique design was complemented by the usage of carbon fiber to create the central hull. Over time, several overhauls were made to enhance the submarine's performance. In 2022, the electrical and software systems underwent a thorough revision to better integrate with the internal setup of AUV8 (now AUV8.1).

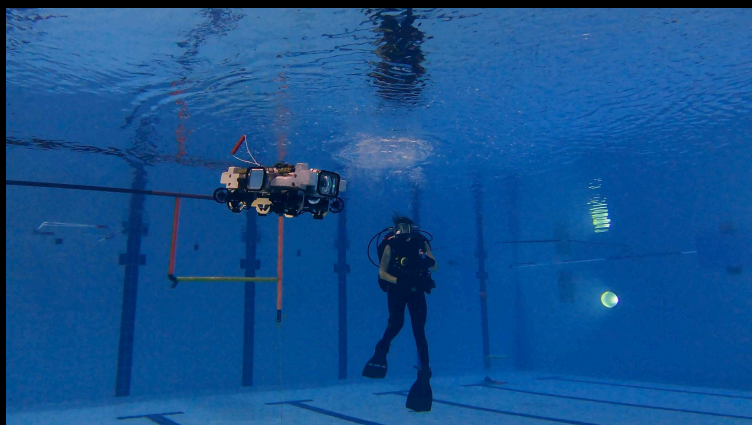


Features

- Central 6 layers carbon fiber hull
- Anodized aluminum end
- 2 cameras
- 8 motor for 6 degrees of freedom
- DVL (with deep transducer)
- IMU
- Marker system
- Jeston Xavier AGX 8 cores ARM processor @ 2.2 GHz, 512 cores graphic accelerator @ 1377 MHz
- Autonomy : 1-2 h

Prototype 8.1

Derived from the AUV8 model designed in 2020, the AUV8.1 incorporates several improvements. The most notable is that its two batteries are now housed in watertight cases outside the submarine on either side of the center section. This design significantly reduces the risk of water leaks, which could damage our electronic components. While retaining the original AUV 8 design, the modifications allow for the integration of our current and future projects.



Features

- Anodized aluminum hull
- 8 motor for 6 degrees of freedom
- DVL
- Deep transducer
- IMU
- Marker system
- Torpedoes system
- Jeston Xavier AGX 8 cores ARM processor @ 2.2 GHz, 512 cores graphic accelerator @ 1377 MHz
- Autonomy : 1-3 h

IT'S YOUR TURN

The goals

This year, the club has set itself a goal: to design and build a brand-new prototype. The ultimate goal is to present this prototype at the Robosub 2025 competition in August.

How can you help ?

The club is looking for sponsorship in the following areas:

- Financial support
- Materials(raw aluminum, parts...)
- Service (Machining, anodization, manufacturing...)
- Access to pools (for testing opportunities)
- Software licenses
- Technical support

Advantages and benefits



Impact and visibility: The SONIA club provides you with enhanced visibility within the secondlargest engineering faculty in Canada, responsible for educating over 25% of engineers in Quebec, along with a social media following of 1200 subscribers.



Talent and recognition : Your support for the club enables your company to gain exposure within a diverse community of talented and passionate students who will soon enter the job market.



Social Impact : Beyond designing autonomous submarines, the club has also dedicated itself to promoting the fields of science and engineering among young individuals. Your support for the club signifies your dedication to this important social mission.



Funding Chart

	Value	Logo on the website	Logo on the banner	Logo on the competition uniforms	Logo on the submarines	Social visibility
Diamond*	10 000+	○	○	○	3 years	+++
Platinum*	6000-9999	○	○	○	1 year	++
Gold	3000-5999	○	○	○	1 year	+
Silver	1000-2999	○	○	○		
Bronze	999 et -	○	○			

*For diamond partnerships we are open to discuss other possibilities according to your requirements.

**Software partnerships are admissible the platinum tier and below.

They already trust us



Become a part of the SONIA family!

SONIA isn't just a submarine project, it's a source of inspiration and education for everyone. The team believes in collaboration, community growth and opening doors to technology.

The goal is to make technology accessible to all and inspire future generations. SONIA seeks to share knowledge, inspire young minds and visit schools and youth centers.

By supporting SONIA, you become a partner in our mission to spread knowledge and innovation.

Join SONIA in creating a future where technology is a source of inspiration for all.



Thanks for your support !

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