

SBQuantum are using cutting edge science to enhance the way we use magnetic fields in order to 'Reveal the Invisible' for our clients. We are reinventing the way companies sense the world by innovating magnetics to provide solutions for problems to which this sensing modality was previously redundant. As a forerunner of Sherbrooke's nascent quantum hub, SBQ are prototyping a 'Magnetic Intelligence' platform, built around a novel diamond-based magnetometer. This platform will reveal hidden objects and enable improved navigation even in difficult environmental conditions. Magnetic fields are everywhere around us, let's make them central to how we sense the world.

Your responsibilities to advance our mission

We are looking for someone motivated to optimize the design and mechanical robustness of our quantum sensor and to drive the deployment of our technology on various robotic platforms, such as rovers and UAVs. You will work collaboratively with the magnetometer development team and the architects of our software solution in order to offer a simple and reliable magnetic inspection solution. Specifically you will:

- Use your knowledge of autonomous robotic systems, inertial measurement units and GPS systems to refine the field deployment;
- Optimize the magnetic signature and electronic architecture of the platforms, as well as the embedded code (ROS) to successfully complete missions;
- Integrate magnetism-based algorithms into navigation systems;
- Design the casing and mechanical structure of the quantum magnetometer, based on vibration and thermal analysis to maximize its performance
- For the first time, deploy our quantum magnetometer on board an unmanned aerial vehicle (UAV);
- Design different mechanical assemblies to make the most of 'Magnetic Intelligence' and improve the user experience of our platforms.

What you need to join our team!

SBQ are looking for candidates with a high degree of autonomy and rigor to develop a high-performance autonomous magnetic inspection solution that meets customer needs. We are not afraid to fail so long as we learn from it - it's part of the adventure. We are looking for:

- A strong ability to work in a cross-functional team. You will work in a multidisciplinary team of eight passionate people in Sherbrooke, QC so we are looking for examples of times you have excelled in a team environment be that at school or in an extra-curricular activity
- Examples of time you have put theory into action - how will you use your mechanical/robotic engineering training (Bachelor+) or other relevant training to accelerate and improve results for our clients;
- An agile mindset to navigate ambiguity and adjust priorities on the go;
- Coachability, ability to set clear, measurable objectives and good task tracking processes;
- A user-centred approach. You will be the champion of the user so we expect you to do some reading on design thinking and to be able to translate technical details into user features
- Adaptability towards a flexible work environment and comfort mixing in-person and remote working;
- Bilingual French/English an asset.

Do you want to seize the opportunity to contribute to and influence the development of a disruptive technology with multiple benefits to society? Contact us, our team wants to meet you!

Send your CV and cover letter to : david@sbquantum.com

David Roy-Guay, CEO and co-founder, SBQuantum

As featured in: • Wired • The Economist • A case study • Graduation from the Creative Destruction Lab
• Institut quantique annual reports • The Quantum Daily • MagQuest Challenge

