

Exail Robotics Belgium – Stage @Exail (Calibration)

Description

We are seeking a motivated engineering intern to help us standardise a robust calibration procedure for the magnetic compass integrated in our drone platforms. Accurate compass calibration is critical for reliable navigation, heading estimation and safety. Your work will directly contribute to improved system performance and operational consistency across our AUV fleet.

Key Responsibilities

- Analyse existing calibration methods currently used in our drone systems and identify sources of inconsistency or drift.
- Conduct practical calibration experiments on real hardware, including drones, sensor modules, and testbenches.
- Develop testing procedures and validation metrics to evaluate calibration accuracy under various electromagnetic and environmental conditions.
- Design and document a standardised calibration workflow suitable for manufacturing, field operations, and maintenance scenarios.
- Prepare clear technical documentation, including process guidelines and operator instructions.

Your profile

You will join the Industrialisation and Systems Engineering Department at Exail in Ostend. A minimum internship duration of three months is required, starting as soon as possible. You will contribute on-site in Ostend throughout the entire internship period.

- Currently pursuing a degree in Electronics, Robotics, Mechatronics, Computer Engineering, or a related field.
- Understanding of IMU sensors, magnetometers and the maths behind.
- Familiarity with embedded systems.
- Experience with Python, C/C++, or MATLAB for data analysis and prototyping.
- Strong analytical and problem-solving skills.
- Ability to work independently and document work clearly.

What we offer

- Real-world challenges in AUV sensor calibration and electromagnetic interference mitigation.
- Hands-on experience with drones and calibration tooling.
- Best practices for standardising engineering processes within a production environment.
- Cross-functional collaboration within an R&D engineering team.
- Practical experience in an international technology environment.
- Guidance from experienced professionals and subject matter experts.

- The opportunity to contribute to innovative projects with social and technological impact.

Apply today and join our team as an engineering intern. Together, we ensure our underwater technologies are efficient, reliable, and mission-ready for demanding maritime applications.

<https://www.exail.com/>