

WORKING STUDENT (20h/week) – ROBOTICS, SOFTWARE & HARDWARE TESTING (f/m/d)

Your Role

As a Working Student – Robotics, Software & Hardware Testing (f/m/d), you will play a key role in evaluating the performance, reliability, and stability of the NAISE application in a real multi-robot environment. You will work hands-on with autonomous mobile robots (AGV's and AMRs) from different manufacturers, ensuring flawless interaction with the NAISE intralogistics platform. This is an **on-site for 20 hours/week, in-person position, directly interacting with hardware, robots, and software systems multiple times a week at ARENA2036 e.V., Pfaffenwaldring 19, 70569 Stuttgart.**

What You Will Do

- Execute daily functional, integration, system, and performance tests of the NAISE intralogistics platform using real autonomous mobile robots.
- Develop automation flows in Node-RED to realize realistic production processes, order sequences, and interactions using different communication Interfaces, I/O devices and PLCs with mobile robots and NAISE Intralogistics Platform.
- Validate end-to-end workflows, including order management, robot navigation, fleet management, and communication interfaces.
- Investigate unexpected robot behavior, communication issues, and system irregularities in a structured, reproducible Quality Assurance manner.
- Document and report software, hardware, and integration-related issues with clarity and precision, supporting NAISE operations and development team in root cause analysis.
- Verify communication flows over MQTT, OPC UA, Modbus, REST, and other relevant interfaces.
- Design new test scenarios, stress tests, and edge-case simulations to improve coverage and uncover hidden issues.
- Support configuration, calibration, localization and maintenance of robots, sensors, and supporting infrastructure.
- Contribute to improving the overall quality assurance workflow by providing insights based on daily real-world testing.

What You Bring

- Enrollment in a Bachelor's or Master's program in Robotics, Automation Engineering, Electrical Engineering, Mechatronics, Cybernetics, Information Technology, Computer Science, or a comparable technical discipline.

- Strong interest and motivation to work directly with mobile robots, automation systems, and hardware in real operational environments.
- Foundational understanding of robotic systems, sensors, navigation concepts, or intralogistics automation is advantageous.
- First experience with or willingness to rapidly learn Node-RED and automation-flow design.
- Knowledge of industrial communication protocols such as MQTT, OPC UA, Modbus, and REST APIs.
- Familiarity with engineering tools such as Git, Docker/Podman, or similar development frameworks.
- A structured and detail-oriented approach to testing, debugging, and documentation — ideally with a Quality Assurance mindset.
- Hands-on mentality, problem-solving capability, and willingness to learn and work independently.
- Strong communication skills in English; German skills are beneficial but not mandatory.

Working at NAiSE: Innovation, Growth & Opportunity

At NAiSE, you'll work in a fast-growing, innovative company at ARENA2036 in Stuttgart, shaping the future of intralogistics automation within a diverse, collaborative team and a flexible, modern working environment that supports personal and professional growth.

Sounds like you? Then send your CV to jobs@naise.eu and become part of NAiSE. At NAiSE, you will have the opportunity to grow alongside the company, expand your skills, and contribute meaningfully to a platform that is transforming the way warehouses and production facilities operate.