

Robotics Intern (f/md)

100% Zürich

Hexagon Robotics is a division of Hexagon – a global leader in precision measurement. The division develops humanoid robots for industrial sectors to address labor shortages and accelerate the transition from automation to autonomy. Our first humanoid, AEON, was launched in June 2025 and is already in pilots with customers.

This internship aims to unlock new capabilities for AEON using VAMP. The first goal is to integrate VAMP into its on-board stack and pair it with a tracking controller that executes the planned trajectories in real time. The second is to evolve from a hand-specified primitive scene to a live map built on-board from the robot's perception, so the planner reasons about the world as it actually is. As a stretch goal, the intern extends planning from standing manipulation to loco-manipulation: generating end-effector motion while the robot is locomoting. The project is a collaboration with Hexagon Robotics on the AEON platform, with access to the model and hardware.

Your Mission

- Familiarize with VAMP (RRT-Connect, PRM, FCIT*), its CAPT point-cloud collision checking, and AEON's existing stack
- Develop a tracking controller that executes VAMP's planned whole-body trajectories
- Integrate VAMP and the controller into AEON's on-board stack and demonstrate closed-loop plan-and-execute on hardware

Your Skillset

- Strong C++ and Python (VAMP's core is C++ with Python bindings)
- Familiarity with sampling-based motion planning (RRT / PRM) and robot kinematics
- Experience developing on Linux with a ROS 2 stack and git

- Evolve the environment representation from a static primitive-based scene to a live map built on-board from perception (e.g. point clouds / height maps), and validate planning against it
- Benchmark planning and execution — speed, success rate, and on-board runtime
- Stretch: extend to loco-manipulation

- Strong problem-solving skills; able to work both independently and in a team

Nice to Have:

- Perception for mapping — point clouds, occupancy or height / elevation maps
- Performance-oriented C++ / SIMD or GPU experience
- Experience with MoveIt / OMPL, cuRobo, or Isaac Lab

What You'll Get

- Flexible working hours and a hybrid model for real work-life balance
- Generous vacation: 25–30 days depending on age
- CHF 500 mobility credit for sustainable commuting
- Bonus system & strong pension contributions
- Tailored training & development opportunities
- Relocation support for a smooth start
- Discounts on health, mobility & entertainment
- Team events and a flat hierarchy where your voice counts
- A warm, international culture built on respect and collaboration

Great robots need great people.

Apply Now

Contact

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