inspire AG is the leading Swiss competence centre for product innovation and advanced manufacturing. As a strategic partner of ETH Zurich, our mission is to transfer knowledge and technology from research to Swiss machine, electrical and metal industries. The research group Intelligent Production Systems at inspire is based in Lugano, the southern part of Switzerland.

AI Robotics Engineer

- Humanoids & Industrial Automation

Our research group focuses on the development of AI algorithms for industrial applications. The main scope of our activities is the optimization and automation of workflows and production systems. Within this field, we are continuously developing and adopting various algorithms for multiple applications such as automating quality control, detecting process deviations and finally predicting the resulting product quality of the production systems.

We are looking for somebody to further push the activities around humanoids, dual-arm robots and mobile manipulators and we want to move fast. Our goal: automate industrial tasks that are still done by hand today, such as assembly, machine tending, handling and inspection, by combining modern robot hardware with AI for perception, manipulation and task learning.

You will have the opportunity to lead this topic and push the current boundaries. The role is like being part of a startup, but with the backing of an established research institute, ETH Zurich and a strong network of Swiss industrial partners.

We are looking for a hands-on, highly proactive builder with an entrepreneurial mindset: someone who spots opportunities and gets a robot doing something useful within weeks. This position sits at the interface between research and industry.

Your Tasks

- Build and own robotic demonstrators end to end, from concept to a working system on real hardware
- Develop AI for perception, grasping and manipulation and task learning (e.g. imitation learning, vision-language-action models, sim-to-real transfer) for industrial tasks
- Integrate and program robot platforms (humanoids, dual-arm robots, cobots, mobile manipulators) using ROS 2, motion planning and simulation tools
- Scout the fast-moving humanoid and embodied AI landscape: evaluate platforms, foundation models and suppliers and translate trends into concrete opportunities for Swiss industry
- Identify automation use cases with industrial partners and run feasibility studies and pilots directly on the shop floor
- Take ideas from concept to launch
- Coordinate industry and grant projects, both technically and organizationally

Required qualifications & experiences

- A PhD in robotics or mechanical or electrical engineering, or a Master's degree with an outstanding track record
- Hands-on experience with real robot hardware, not only simulation
- A proven track record in robot learning, perception or manipulation is a plus
- Strong proficiency in Python and C++, and experience with ROS/ROS 2
- Solid experience with deep learning frameworks (e.g. PyTorch) and robot simulation (e.g. Isaac Sim, MuJoCo, Gazebo)
- Experiences in applied research, industrial R&D or a robotics startup

- A startup or entrepreneurial mindset: you take initiative, ship prototypes fast and make things happen rather than waiting for direction
- Comfort with ambiguity and fast-changing priorities, combined with a structured, solution-oriented way of working
- The ability to turn technical ideas into projects
- Excellent English, plus fluency in at least one of German, Italian or French; a further national language is an advantage
- CH/EU/EFTA citizenship or a valid Swiss work permit

We offer

- The chance to push robotics activity with real ownership
- Access to robot hardware and lab infrastructure to test ideas quickly
- Exciting topics and projects spanning academia and industry, at the forefront of AI for manufacturing
- A flexible working culture with self-organized job execution and short decision paths
- Close cooperation with industrial partners and the chance to build your own network
- Participation in conferences, workshops and exhibitions
- Guidance and internal training from experienced professionals to support your growth

Please send your full application (cover letter, transcripts, CV, references) with reference ” AI Robotics Engineer to our HR department (hr@inspire.ch).

For technical questions, please contact Daniel Knüttel, Head of Intelligent Production Systems (daniel.knuettel@inspire.ch).

By submitting application documents, you accept the provisions of the privacy policy of inspire.