



INTERNSHIP

Drone / Robotics Developer

Problem Description

Air surveillance is one of our core competences. In order to extend the capabilities of our stationary sensor systems and increase their performance, we are designing highly mobile solutions based on a UAV platform. This UAV carries various type of sensors and can accomplish surveillance missions autonomously. The primary goals of this internship are the implementation of the drone control software on a Linux-based Single Board Computer, the integration of electro-optical sensors, and the conduction of field-testing with our drone prototype. Along this task, you may also identify and integrate various open source software libraries, according to the requirements of our platform.

Your Profile

- Bachelor/Master student in robotics, computer science, electrical engineering or similar
- Ability to solve challenging technical problems independently and to coordinate efficiently within a cross-disciplinary team
- Experience with Python including a solid understanding of object oriented programming concepts
- First experience working with the Robot Operating System (ROS), preferably ROS2
- First experience with using Gazebo for Simulating Robotic Systems
- First experience working with the Linux Command Line Interface and using git version control system
- Additional experience with one of: C++, Docker, unit testing, continuous integration is a strong plus
- Prior experience with development on embedded Linux Platforms, Drone Platforms and/or Single Board Computers (e.g. Raspberry Pi) is a strong plus
- Knowledge or practical experience in one of the following topics is a plus: Machine Learning / Computational Geometry / Signal Processing / Computer Vision

Contact

Dr. Ezio Alfieri

E-mail: ezio.alfieri@rheinmetall.com
Direct phone: +41 44 316 27 32