

Open Position Reports to Contract type Level Location Embedded Systems Engineer Head Of Unity Lab Permanent, Fulltime Mid-career Abuja (Onsite)



WHO WE ARE

Innov8 Hub is a not-for-profit, non-governmental organization with a mandate to groom innovators, researchers, creatives, and venture creators. We strategically aid and collaborate with organizations and individuals seeking to transform their ideas into solutions.

JOB DESCRIBTION

We are seeking a highly skilled **Embedded Systems Engineer** with expertise in **AI and Machine Learning** to design, develop, and optimize embedded systems. The ideal candidate will have experience in circuit design, firmware development, AI/ML implementation and troubleshooting complex embedded hardware systems.

KEY RESPONSIBILITIES:

- Implement Machine Learning (ML) and Artificial Intelligence (AI) algorithms for real-time decision-making and automation.
- Develop and analyze circuit schematics, PCB layouts, and embedded system designs.
- Write and optimize firmware for microcontrollers (ARM, ESP32, STM32, etc.) and embedded hardware.
- Integrate **wireless communication protocols** (LoRa, Wi-Fi, Bluetooth, 5G) into drone and robotics systems.
- Conduct hardware debugging, testing, and troubleshooting of embedded systems.
- Work with sensor fusion techniques, including GPS, IMU, LiDAR, and computer vision-based navigation.
- Collaborate with software engineers to integrate Al-driven perception and control systems.

EDUCATION, EXPERIENCE & SKILLS

Required:

- Bachelor's or Master's degree in Electrical/Electronics Engineering, Robotics, Mechatronics, or a related field with a minimum of two(2) years hands-on experience.
- Strong proficiency in PCB design and embedded system development.
- Proficiency in Python, C/C++, ROS (Robot Operating System), and embedded firmware programming.
- Experience with AI/ML frameworks such as TensorFlow, PyTorch, or OpenCV.
- Hands-on experience with microcontrollers, FPGAs, and embedded computing platforms (NVIDIA Jetson, Raspberry Pi, etc.).
- Ability to troubleshoot and debug embedded systems at both hardware and software levels.
- Knowledge of computer vision, LiDAR mapping, and sensor fusion techniques.

Preferred Experience:

- Experience with real-time operating systems (RTOS) for embedded applications.
- Familiarity with cloud-based Al/IoT solutions for remote drone monitoring and control.
- Understanding of radio frequency (RF) communication and telemetry systems.

REMUNERATION

Salary Range - Open - Initially dependent on experience, thereafter on performance

HOW TO APPLY

Please submit your resume, portfolio and a cover letter highlighting your relevant experience and why you are the ideal candidate for this position to **hr@innov8hub.ng** on/before **Tuesday**, **26th August**, **2025**...