

STIVE GABIN NTEPI TCHOUWA

Embedded Systems and Robotics Engineer

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PROFILE

Embedded systems and electronics professional with experience coordinating an electronics laboratory, integrating microcontrollers and sensors, and developing robotics and UAV prototypes. Combines firmware, mechanical CAD and functional 3D printing. M.Sc. thesis in progress; open to international engineering and R&D opportunities.

PROFESSIONAL EXPERIENCE

Embedded Technician and Electronics Lab Manager

Alemdar Teknik | Cyprus | October 2023 - Present

- Coordinate laboratory activities, prototype assembly, wiring and embedded hardware integration.
- Integrate sensors and actuators; perform bench testing, fault diagnosis and troubleshooting.
- Support iterative prototyping across electronics, firmware and mechanical assemblies, with technical documentation.

TECHNICAL SKILLS

Firmware C/C++, Python; ESP32, STM32, Arduino, Raspberry Pi; I2C, SPI, UART, I2S.

Electronics KiCad PCB development, wiring, soldering, sensor/actuator interfaces and diagnostics.

Robotics and UAVs ROS 2, Linux, LiDAR/camera integration, micro-ROS; PX4 and Gazebo simulation.

CAD and prototyping SolidWorks, Fusion 360, assemblies and enclosures; FDM printing across all filament types.

SELECTED PROJECTS

UAV research and simulation

M.Sc. collision-resilient quadcopter research for image-based soil classification: SolidWorks cage/gimbal concepts and integration around a ready-made H743 flight controller. Team VTOL project: Gazebo/PX4 simulation in progress.

18-joint hexapod robot

Designed a six-legged robot in SolidWorks, including servo housings and bearing-supported joints; brought the model into Gazebo. CAD and simulation in progress.

ROS 2 rover and sensor integration

Built ROS 2 workspaces and Python nodes; worked on LiDAR, camera and ESP32/micro-ROS integration, using topic inspection and driver troubleshooting.

Self-balancing robot with voice control

Designing upper control and lower power/motor boards in KiCad. PCB layout, routing and integration of the balancing and voice-control electronics are in progress.

EDUCATION

M.Sc. Electrical and Electronic Engineering Near East University | Thesis in progress.

B.Sc. Electrical and Electronic Engineering Final International University | 2020 - 2023.

ADDITIONAL EXPERIENCE AND LANGUAGES

Solar PV installation support, commissioning assistance and system checks. Languages: English and French.