

Embedded IoT Engineer

57070 Metz · 5 à 10 ans d'expérience · Réf. 2608260408

Ma recherche

Contrat recherché : Tout contrat

Zone : Grand-Est

Mobilité : sur toute la région

Rémunération : à étudier

Secteur : Batiment

Formations

09/2020 — Bac +5 — École Supérieure d'Ingénieurs en Génie Électrique (ESIGELEC)

Masters of Science in Electronic Embedded Systems

06/2016 — Bac +3 — CVR College of Engineering

Bachelor of Engineering in Electrical and Electronics

Expériences professionnelles

12/2025 - 03/2026 — Embedded IoT Engineer (Freelance Project)

Developed and integrated an IoT based radon monitoring system (sensor data acquisition, LTE/4G connectivity, secure MQTT transmission to AWS). Integrated RM 75 radon sensor via UART with Arduino MKR NB1500. Developed firmware in C++ (Arduino IDE). Performed PCB integration, SD card logging and LTE/4G communication using AT commands.

11/2021 - 10/2025 — Embedded IoT Engineer

Led an IoT platform for indoor air quality management (CO₂, PM2.5, VOC, Lux, temperature, humidity, relays, Shelly). Designed PCBs in KiCAD and firmware (ESP32/C++) with SPI/I2C/UART, Wi-Fi, MQTT, ESPHome/RTOS, telemetry to InfluxDB, Node-RED, Grafana. Managed Docker based ESPHome deployment, sensor calibration (LabVIEW), power/energy monitoring via Modbus, Zigbee, LoRa, RFID. Implemented AI Prophet predictions, SQL query automation, 2D/3D visualisations (Python/Matplotlib/Streamlit/Plotly), SolidWorks mechanical design and 3D printing, UWB localisation proof of concept.

10/2019 - 03/2020 — Embedded Hardware Engineer

Designed full electronic hardware for a wearable medical device (IBraclet) to monitor impedance and stream encrypted data. Developed firmware (MPLAB, C++) for PIC32, implemented data acquisition, pressure sensing, lock-in amplification, DDS signal generation and Howland current pump. Created PCB in KiCAD, 3D enclosures in SolidWorks, and integrated BLE communication.

03/2019 - 06/2019 — Embedded Hardware Engineer

Engineered a PWM driven smart EGR actuator with shaft rotation sensing and LIN communication. Designed schematics in EAGLE, PCB layout, and MATLAB simulations for motor and temperature control.

Reverse engineered EGR valve PCB for testing methodology development.

Langues

English (maternelle), French (courant)

Atouts

Embedded C/C++, VHDL, FPGA, RTOS, MATLAB/Simulink, LabVIEW, Keil uVision, ESPHome, Code Composer Studio, Eclipse IDE, PCB Design (EAGLE, KiCAD, Altium, OrCAD), SolidWorks, CAD 3D Modeling & 3D Printing (Crealty Ender 6), MPLAB X IDE & PIC32, STM32 CubeMX, ROS, InfluxDB / Node-RED / Grafana, Plotly / Streamlit / Matplotlib, Docker, Linux (Ubuntu) & Windows, Communication Protocols (SPI, I2C, UART, CAN, LIN, I2S, MQTT, BLE, USB, Wi-Fi, Zigbee, LoRa, Modbus/TCP, RS485, RS232, IP), Power Electronics (AC/DC), UWB (DW1000) localisation, JupyterLab, Git, MS Office (Word, Excel, PowerPoint), Oscilloscope & Multimeter (test & validation), Security & Safety (EMC, ESD, EMI)

