Recruitment

- Embedded Linux Platform Engineer – IoT / Smart Hub
- ESPHome Engineer – Advanced Configuration & Device Integration

Embedded Linux Platform Engineer – IoT / Smart Hub

The company is developing its own **Linux-based platform for smart hubs and IoT devices SMHUB-OS** - an example of device running that platform is here:

https://smlight.tech/global/smhub.
The system combines an embedded Linux core, backend services, and a web interface (frontend), providing centralized management of device networks, network configuration, radio modules, and integrations.
The architecture supports **network stacks (Ethernet, Wi-Fi, 4G/LTE), OTA updates, and app installations** (such as Node-RED, Zigbee2MQTT, etc.), as well as work with **peripheral modules** (IR transmitter and receiver, audio subsystem, buzzer, addressable LED strips, SD card, USB, UART/I2C buses, and others) and in future - cloud sync/control system.

We are looking for an **engineer** to participate in the **development and maintenance of the SMHUB-OS core system, backend logic, and integration with the frontend (React/WebSocket).**

What will you do

- Develop and maintain a **Linux platform for embedded devices (RISC-V SoC)**
- Integrate system modules (**Ethernet, Wi-Fi, 4G/LTE, radio modules, GPIO, USB, Wi-Fi, IR transmitter/receiver, UART, I2C**, etc.)
- Configure **U-Boot, rootfs**, and partition logic (**RAUC, read-only rootfs, user data**)
- Develop **backend services (Python / FastAPI, possibly C/C++)** for managing configuration, telemetry, and device status
- Integrate system services (**NetworkManager, ModemManager, WireGuard, systemd, MQTT**)
- Interact with the **frontend via WebSocket JSON API** (a dedicated frontend engineer works on this part)
- Build a **secure architecture** with privilege separation between the web interface and system services
- Implement and maintain **OTA update and system recovery mechanisms**
- Debug **drivers, startup scripts, and interfaces (UART, I²C, SPI, USB)**
- Prepare **technical documentation** and participate in system architecture design

Technologies used

- **Linux kernel, U-Boot**

- **Python (FastAPI), Bash, systemd**
- **SQLite / JSON** for configurations
- **RAUC / OTA updates**
- Collaboration with **ReactJS frontend**
- Additional experience with **Zigbee2MQTT, Node-RED, Matterbridge, Z-WaveJS** is a plus

Requirements

- Experience with **Embedded Linux / SBC (Single Board Computers, RISC-V architecture preferrable)**
- Understanding of **Linux kernel, drivers, bootloaders, and device tree**
- Experience building **backend services (FastAPI)**
- Knowledge of **network stacks** (Ethernet, Wi-Fi, LTE, VPN)
- Ability to analyze **system logs** (dmesg, journalctl, strace)
- Understanding of **system security and privilege separation** principles
- Experience integrating **frontend via WebSocket or REST API**
- **Self-organization, attention to architecture and stability**
- **English proficiency** for communication with the engineering team
- Preferably, experience in **IoT / Smart Home / Automation**

Please submit your application by this link: https://forms.gle/9L749uaUPRCLeP2n6

ESPHome Engineer – Advanced Configuration & Device Integration

SMLIGHT develops cutting-edge **smart home and IoT hardware**, including Zigbee, Matter, and multi-radio hubs, smart LED controllers, and modular Wi-Fi devices.
Our devices run platforms such as **ESPHome**, **Linux-based SMHUB-OS**, **SLZB-OS** and **custom firmware**, ensuring flexibility, transparency, and integration with major ecosystems like **Home Assistant**.

We are now looking for an **ESPHome Engineer** — someone who lives and breathes YAML, understands the internals of ESPHome, and can transform complex hardware configurations into efficient, elegant, and maintainable firmware builds.

What will you do

- Design and maintain **ESPHome configurations (.yaml)** for new and existing devices (Zigbee coordinators, LED controllers, IR transmitters, sensor modules, etc.)
- Implement and optimize **device logic, sensors, communication buses, and peripherals** (UART, I²C, SPI, ADC, PWM, GPIO, etc.)
- Develop **modular and reusable YAML templates** for product lines and internal projects
- Ensure **firmware compatibility** across multiple hardware variants (ESP32, ESP32-S3, etc.)
- Collaborate with hardware and firmware engineers to map pinouts, components, and features
- Integrate device configuration with **Home Assistant**, **MQTT**, and **API endpoints**
- Maintain **clear structure, documentation, and versioning** for all YAML builds
- Test, debug, and validate configurations on physical hardware
- Provide input for future hardware designs to improve ESPHome compatibility

Requirements

- Proven experience with **ESPHome** (advanced YAML configuration, custom components, lambda usage)
- Deep understanding of **ESP32 / ESP8266 microcontrollers** and hardware interfaces (UART, I²C, SPI, ADC, PWM, GPIO, etc.)
- Knowledge of **Home Assistant**, **MQTT**, and related smart-home ecosystems
- Experience debugging hardware-related issues (logs, compile errors, pin conflicts, etc.)

- Strong skills in **structuring and documenting** ESPHome projects
- Ability to work independently and propose improvements to hardware/firmware integration
- Familiarity with **electronics schematics, sensors, and peripheral modules**
- Basic knowledge of **Python / C++** (for ESPHome custom components) is a plus
- English proficiency for communication with the engineering team

Nice to have

- Experience with **Matter, Zigbee2MQTT, or Tasmota**
- Familiarity with **Jinja templates** and YAML modularization
- Prior contributions to **ESPHome community** or public repositories
- Experience working with **LED controllers, IR devices, or multi-radio hubs**

Please submit your application by this link: https://forms.gle/gUeGaQVb6kpeoyjb9