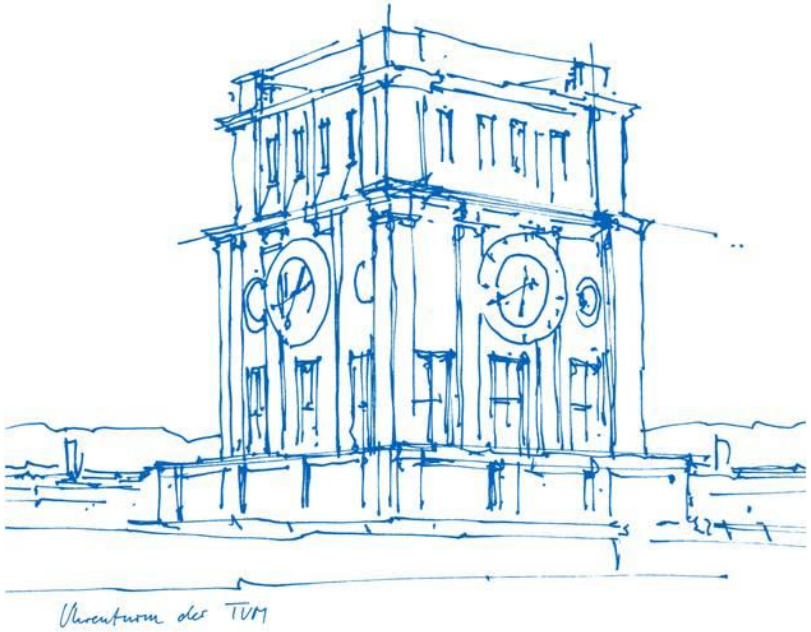
Mobile Solar Panels

Sprint 1

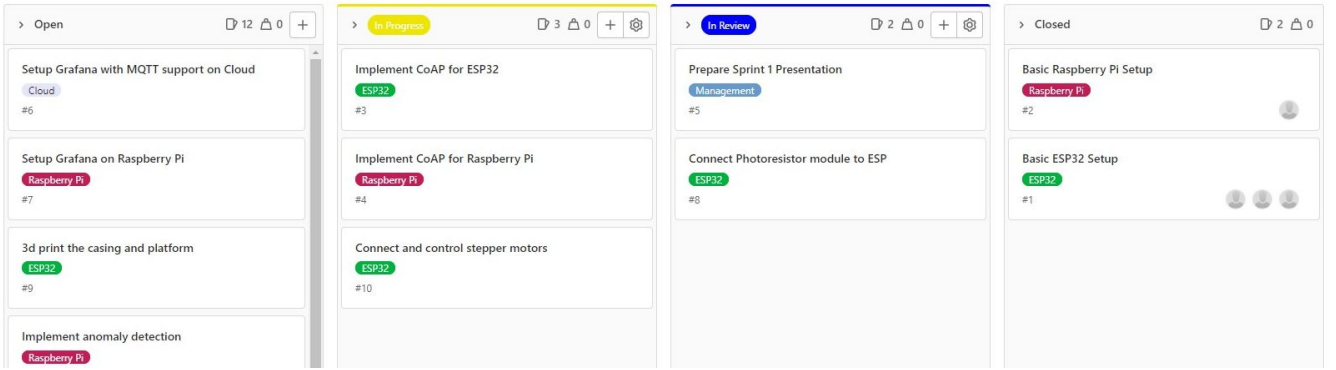
Eric Armbruster, Florian Freund, Sebastian Klinke

Garching, 03.06.2022



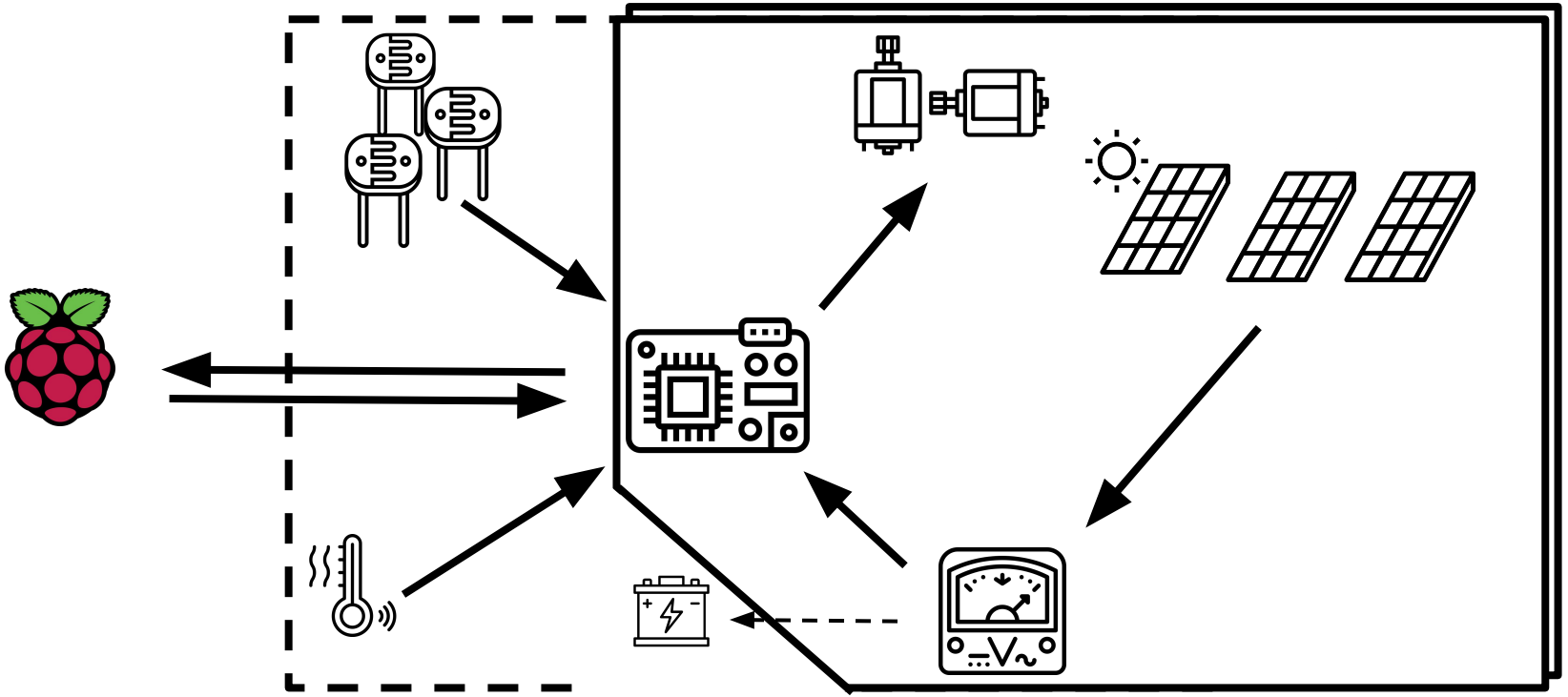
Organization

Issues and Labels

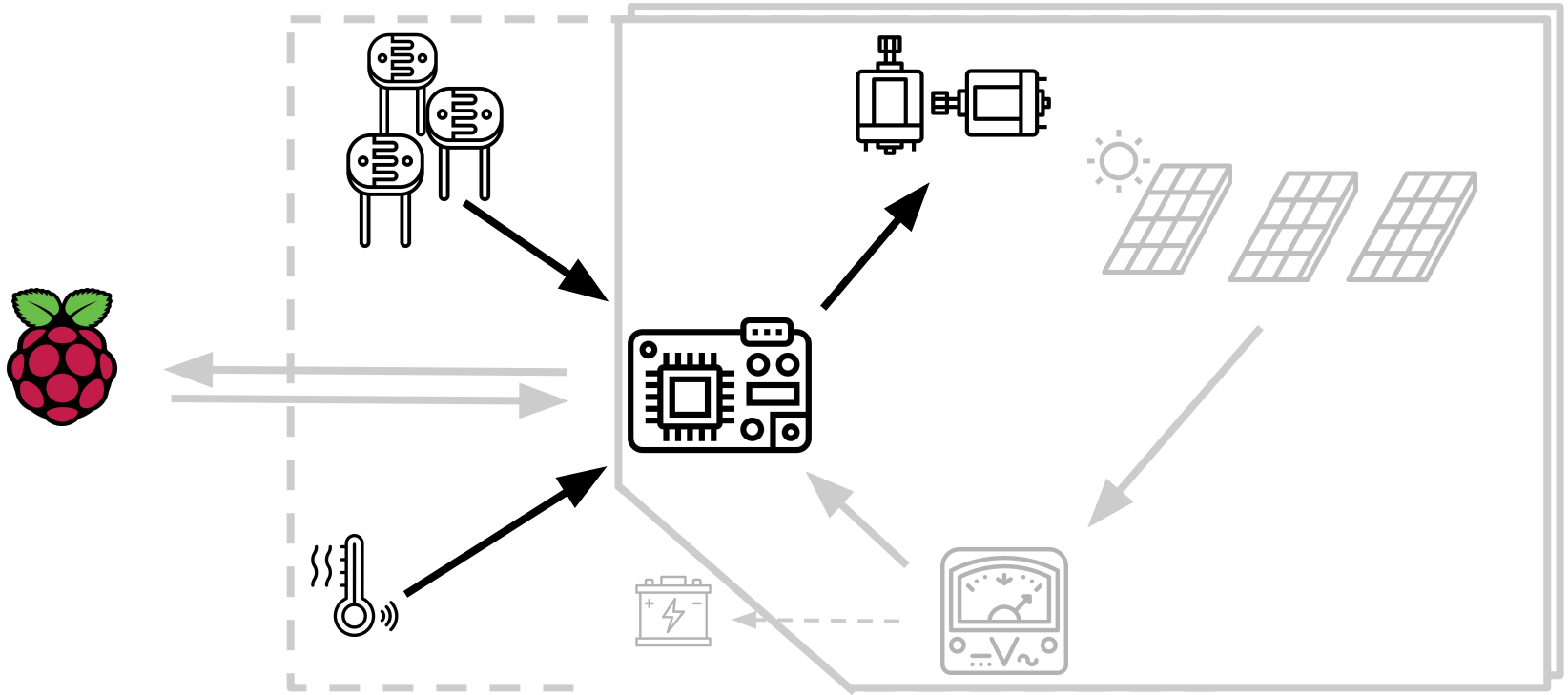


Milestones

Setup



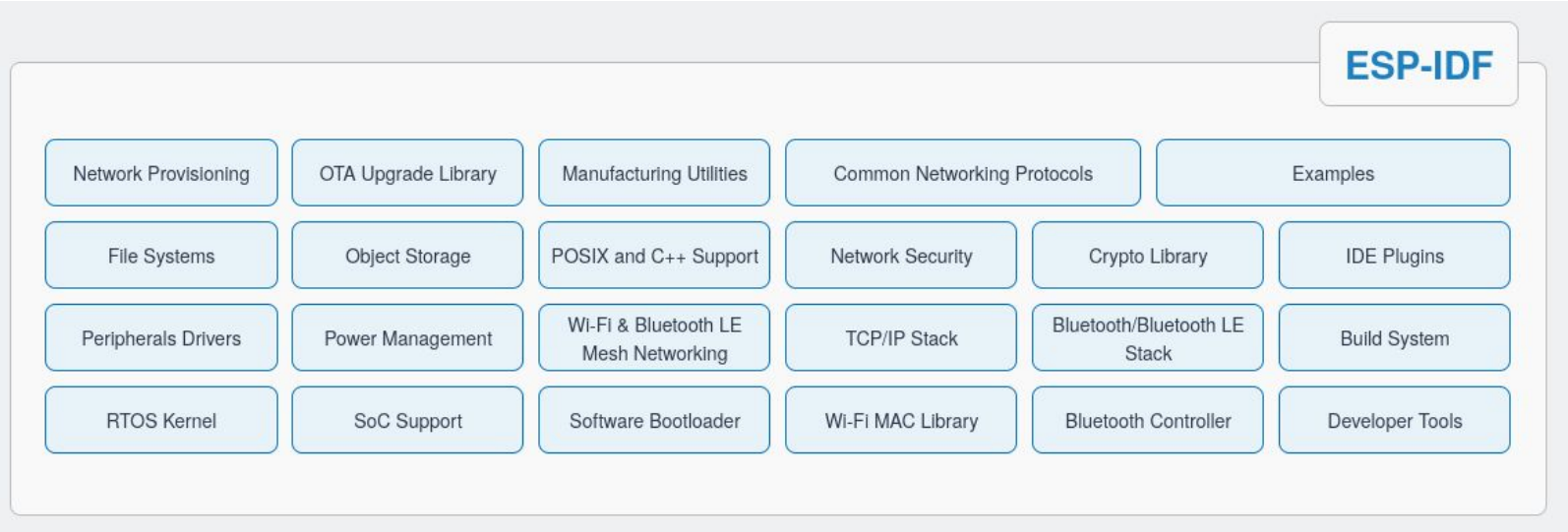
This Sprint



Espressif IDF

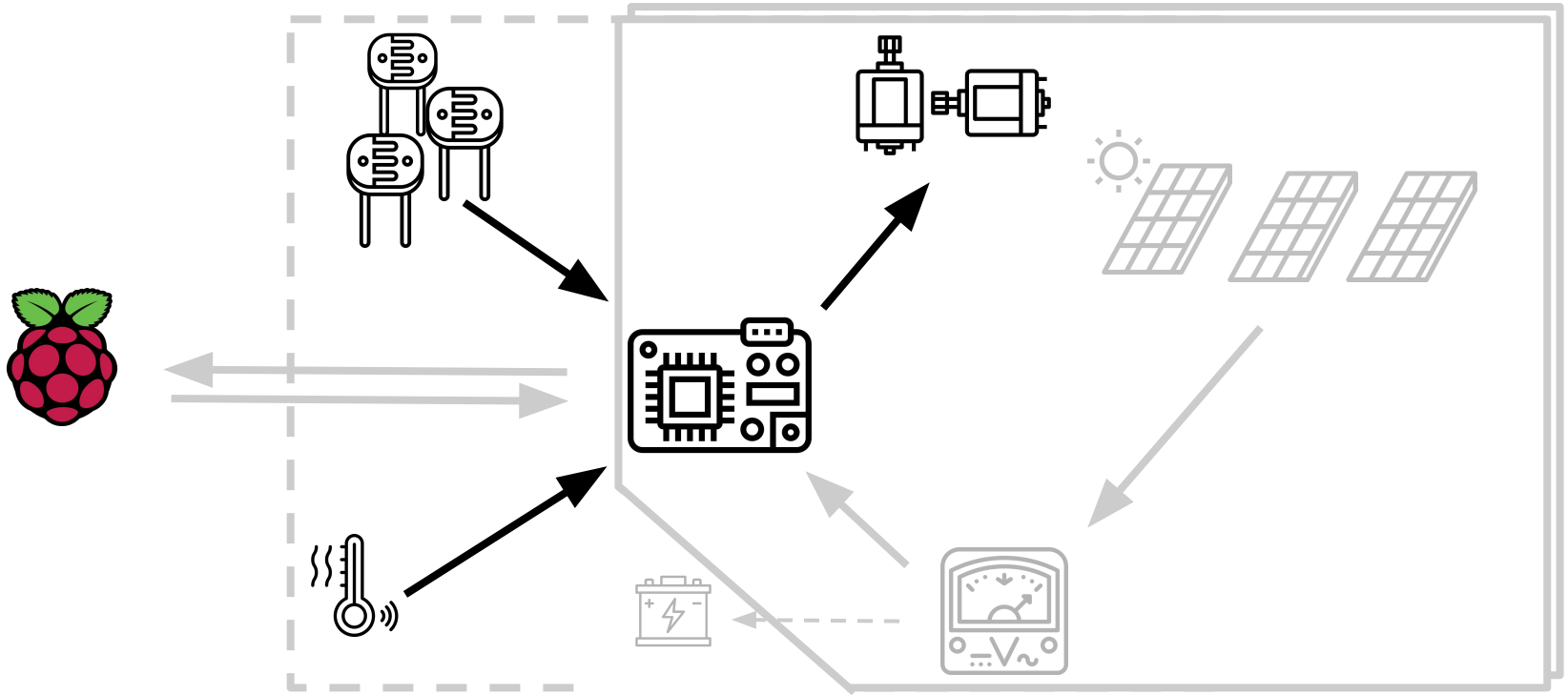
- IoT Development Framework from Espressif
- Full hardware support, RIOT does not support:
  - Multithreading
  - Bluetooth
  - Rust on ESP32
- Rust bindings
- Why Rust?
  - Memory safety guarantees at compile time
  - Same embedded cross-platform development like RIOT
  - It’s cool 😎

Espressif IDF

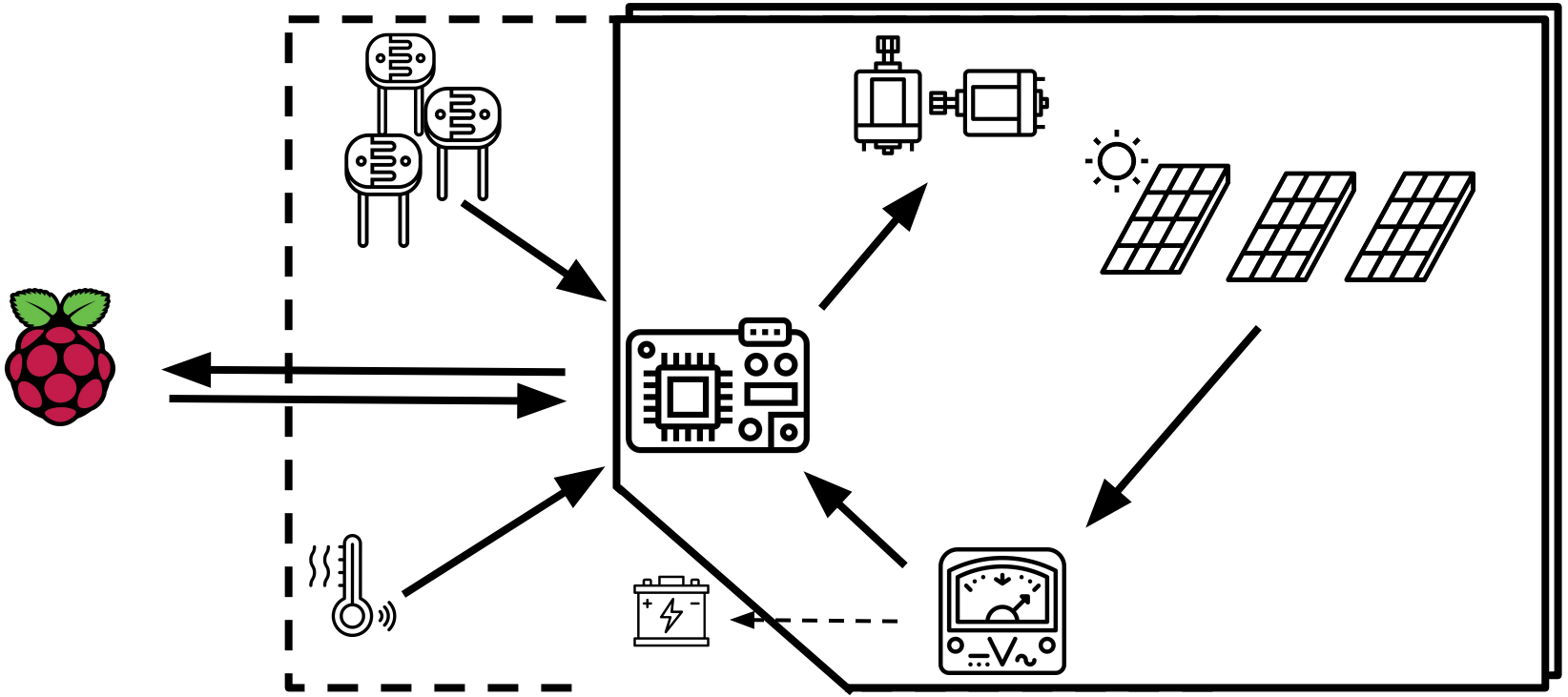


Source: https://www.espressif.com/en/products/sdks/esp-idf

This Sprint



Next Sprint



Next Sprint

- 3D print platform and casing
- Implement CoAP on both ESP32 and Raspberry Pi
- Connect missing hardware (Solar panels, current and voltage sensor)
- Control platform rotation via photoresistor module

Feedback from Tutors

- Todo