

## Day 2 – Embedded Rust Training

# STM32: Hardware Access, Drivers & Concurrency

### Setup

Install Rust target: thumbv7em-none-eabihf  
Install cargo-embed, probe-rs, and OpenOCD.

### Wiring

Connect ST-LINK SWDIO->STM32 SWDIO, SWCLK->SWCLK, GND->GND, 3.3V->VCC, NRST optional.

### Build & Flash

```
cargo build --release --target thumbv7em-none-eabihf
cargo embed --release
```

### Examples

LED Blink, UART Echo, SPI driver with interrupts.

### Concurrency

RTIC for interrupt-driven concurrency.  
Embassy for async/await embedded programming.

### Lab

Write UART driver using embedded-hal. Extend with concurrency (interrupt handling).

### References

[stm32-base.org](https://stm32-base.org)  
[probe-rs](https://probe.rs)  
[ST Microelectronics](https://www.st.com)