Student: Gil Teixeira – gilteixeira@ua.pt

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Summary: Portfolio containing professional and academic interests

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Portfolio

RTOS Project (developed with Heaboo, Ida) chosen to complement SOTR which I attended this semester.

Date: 10/2022 - 12/2022

Code for an *espressif esp32 featuring:*

- *Wi-Fi management*
  - *Creates an AP with a webserver where the user can introduce his Wi-Fi credentials*
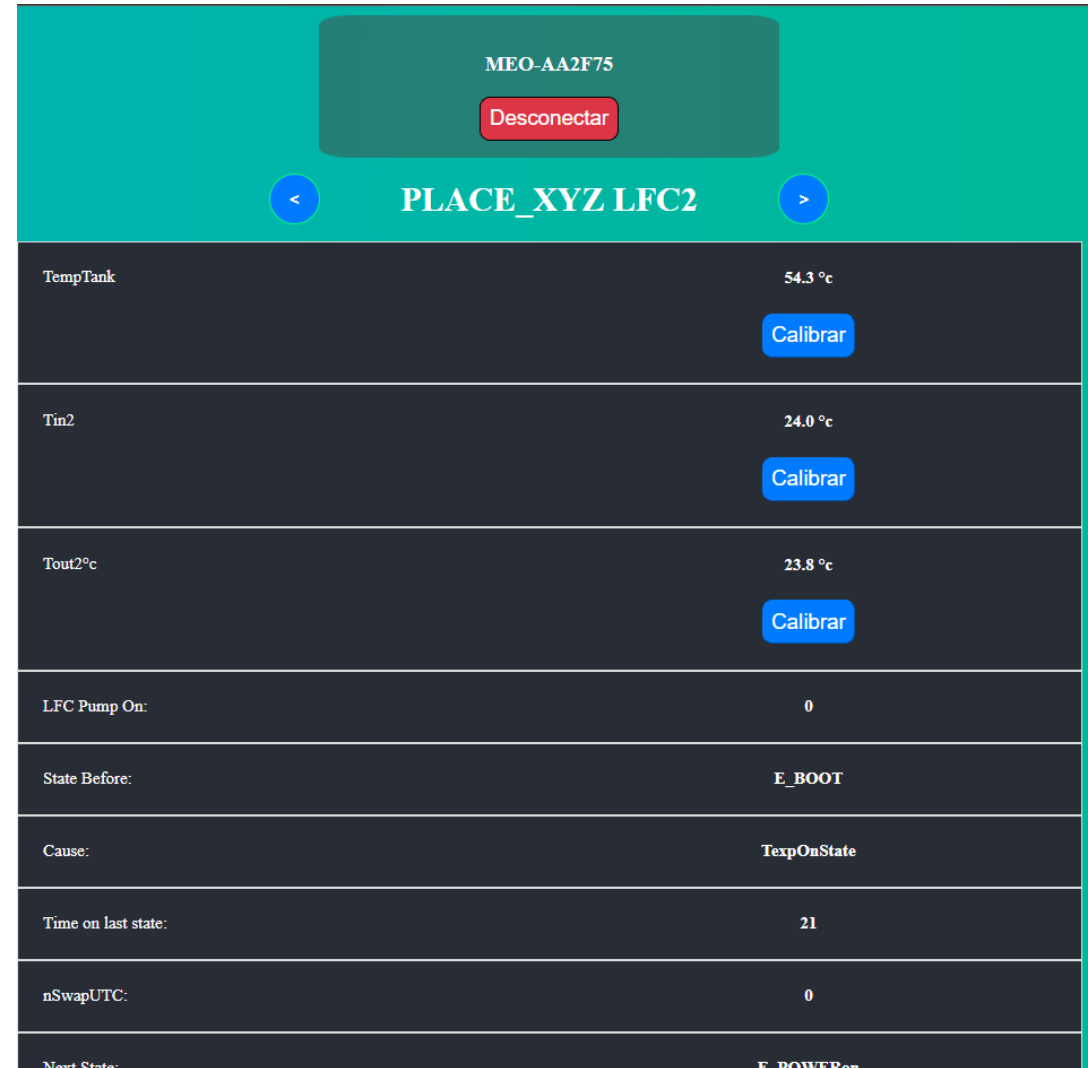- *OTA updates*
- *Web server to monitor and configure*

Login component

Portfolio

The microcontroller sends 2 types of messages to a server hosted by myself:

- *Sensor messages*
  - *Sent every 15 seconds*
- *Status messages*
  - *Sent every state change / 2 minutes passed and also serves as an heartbeat*

Portfolio

Project developed in collaboration with an engineer of the company who created the current 1 master and up to 3 slaves, all Atmega328, architecture to control and monitor the company's product which consists of thermic batteries to compensate for the initial cold water when requesting hot water.

This project contributed greatly to my knowledge about RTOS specifically freeRTOS.