Introduction

In the "Ex_from_univeristy" folder, there are tasks that we had the opportunity to solve during classes related to microcontrollers. In this subject, we had the opportunity to use knowledge in the precise construction and architecture of microcontrollers, as well as FPGA circuits. In the practical part (laboratories), we had the opportunity to use:

- UART
- Interrupts
- DMA (Direct Memory Access)
- SPI, - discrete outputs
- analog inputs (ADC)
- events
- 7-segment display

In the "HTTP_RTOS" folder, there is my own mini-project, which is discussed below.

Mini-project

This is a project during which I created a simple http server to control diodes and a servo using the STM32 F429zi microcontroller.

The project used:

- STM32F429zi

- thermometer with I2c

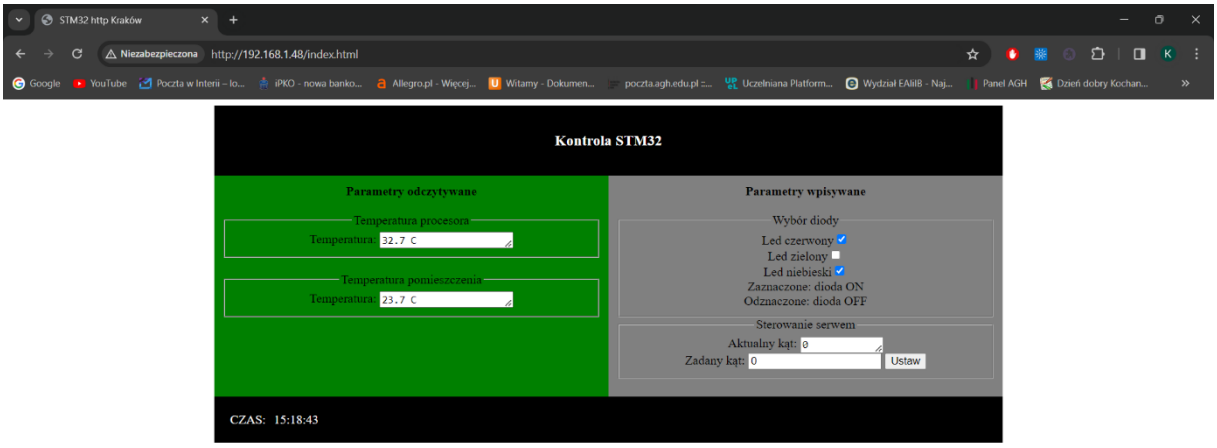
- servo

- real-time operating system (FreeRTOS)

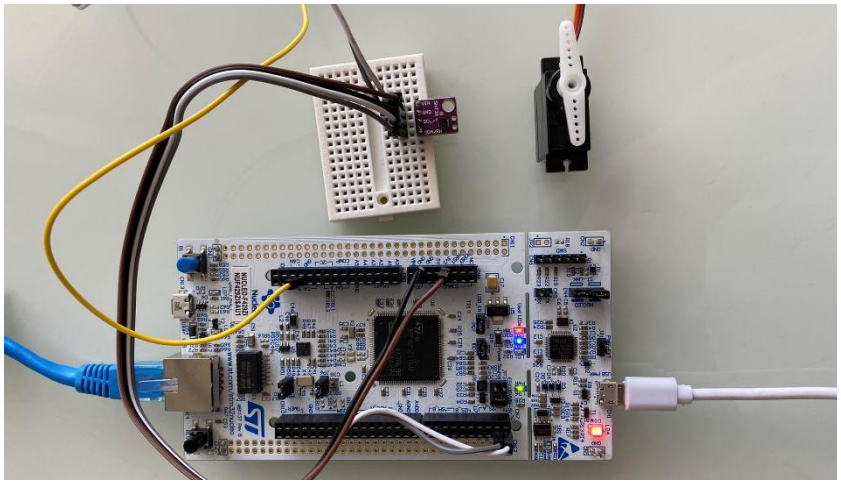
- LWIP library

- UART communication

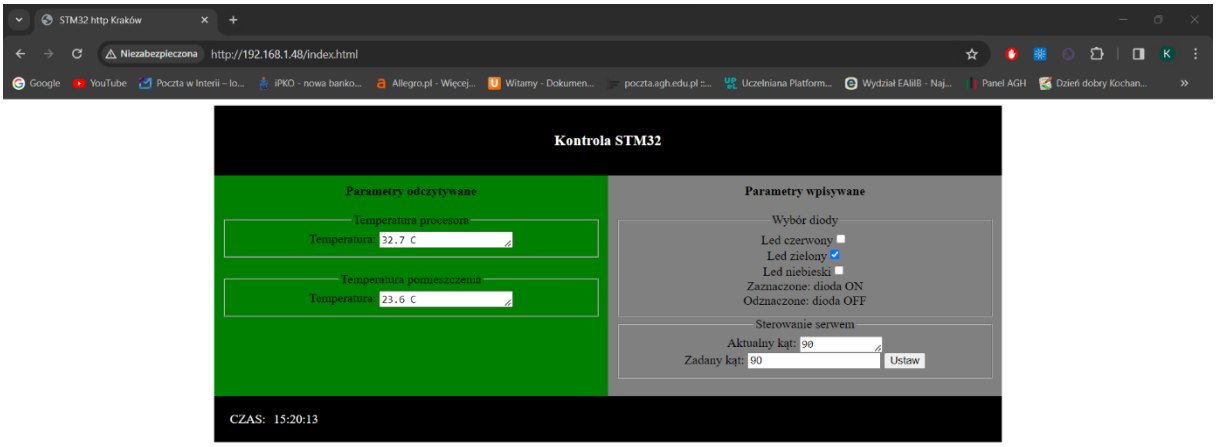
Combining all this I got the effect:



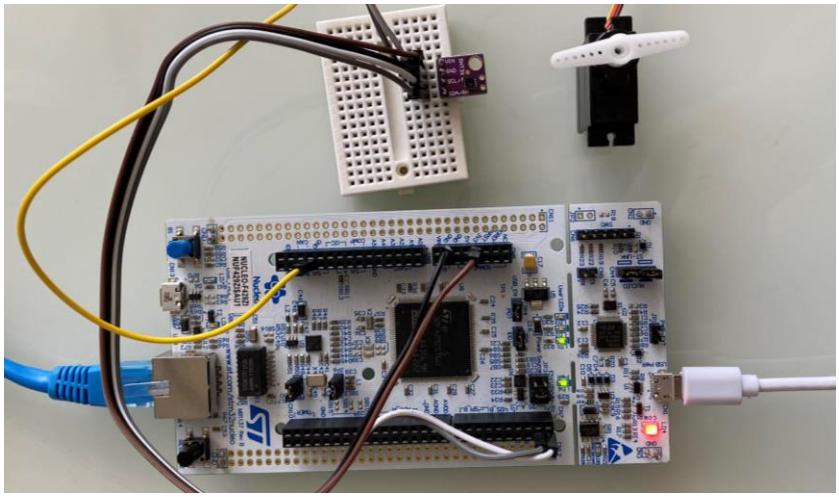
Rysunek 1 The wiew from website



Rysunek 2 The view shows the working device



Rysunek 3 The wiew from website



Rysunek 4 The view shows the working device

In addition, the code allows us to set the angle in the server using the command window