4DS4: Lab Assignment #1

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Step 1

Input Needed

- Letters of our initials (V.P and U.S) converted into a series of dots and dashes as per Morse Code Standard

Processing

- Call dot() and dash() depending on how many dots and dashes make up each letter required
- A dot lasts 500ms
- A dash lasts 1500ms

Output

- Output needed on GPIO pins on PB4 and PB5 to light red and green LEDs in the RGB LED Provided

Step 2

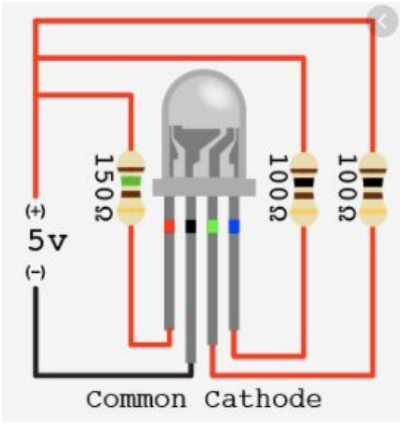
Identify what you don't know or how to do

- We need to know how to use delays and as well as the GPIO inputs and outputs to be able to set and reset the pins
- We need to know how to wire the RGB LED light
- We know how to create functions and call them in C
- We know where to call these functions inside the template code

Step 3

Find out/figure out what you don't know or know how to do

- V (...-)
- P (.--.)
- U (..-)
- S (...)
- Above are each of the letters in our initials translated to morse code
- The RGB LED is wired in as follows:



- Delays are used with the HAL_delay(int time) function, where the time is in milliseconds
- The GPIO inputs and outputs are used by calling the HAL_GPIO_WritePin() function
- Functions were initialized using function prototypes and then called in the main function to get the outputs.