Hermione's Potions

A - Setup

- Reading Pushbutton

We initialize a flag with zero value. Then, while the flag remains zero, we keep reading the pin connected to the pushbutton, once the pushbutton is pressed, the flag gets the value “1” and the while loop breaks.

Thus, our recipe timer starts.

- Timer.h

We have initialized a Timer object.

Once the recipe timer starts, the redLED pulses from LOW to HIGH for 15 minutes.

Then, we use the timer library so that the greenFunc(), which is a function controlling the greenLED, is called every 2 minutes.

We also use the timer library to call the whiteFunc(), which is a function controlling the whiteLED, after 5 minutes and after 8 minutes.

B - Functions

- greenFunc()

This function uses the Timer library’s oscillate function so that the greenLED blinks for 5 seconds. This is done by having 100 milliseconds delay between each oscillation and by repeating the oscillation 50 times.

Thus, 50 * 100 = 5000 milliseconds, and the greenLED will blink for 5 seconds.

- whiteFunc()

This function uses the Timer library’s oscillate function so that the whiteLED blinks for 10 seconds. This is done by having 100 milliseconds delay between each oscillation and by repeating the oscillation 100 times.

Thus, 100 * 100 = 10000 milliseconds, and the whiteLED will blink for 5 seconds.

C - Loop

In the loop, we just call the Timer library's function update(), so that multitasking can happen.