Hermione Potions

```
#include <Timer.h>;
Timer myTimer ;
int R_led = 4; // choose the pin for the LED
int G_led = 5;
int W_led = 6;
int inPin = 2;   // choose the input pin (for a pushbutton)
int ButtonState = 0;
```

- First, we include Timer.h library so we could create our timer and use after and every function later in the code.
- Second, we define the led ports so we can use it easily later in the code, and we define a variable ButtonState to detect Push Button state.

```
void setup()
{
  Serial.begin(500000);
  pinMode(R_led, OUTPUT);  // declare LED as output
  pinMode(G_led, OUTPUT);
  pinMode(W_led, OUTPUT);
  pinMode(inPin, INPUT);
```

- Then we declare the inputs and outputs in setup.

```
void loop()
{
  ButtonState = digitalRead(inPin);  // read input value
  if (ButtonState == LOW)
  {         // check if the input is LOW (button pressed)
    myTimer.after( 1000 ,fn1);
    myTimer.every( 120000 ,fn2 ,5000);
    myTimer.after( 300000 ,fn3 );
    myTimer.after( 480000 ,fn3 );
  }
```

- Then, in void loop() we read the Push button state and put it in ButtonState.
- Then we put the if condition so the program carry on if the button is pressed.
- Then we use the timer functions to determine when each led will be on and its duration.

```
void fn1()
{
   digitalWrite(R_led, HIGH); // turn LED ON
   delay (900000); //turn on for 15 min
}

void fn2()
{
  digitalWrite(G_led, HIGH);
}

void fn3()
{
  digitalWrite(W_led, HIGH);
}
```

- then we define each function that the program will need to implement in the timer function.