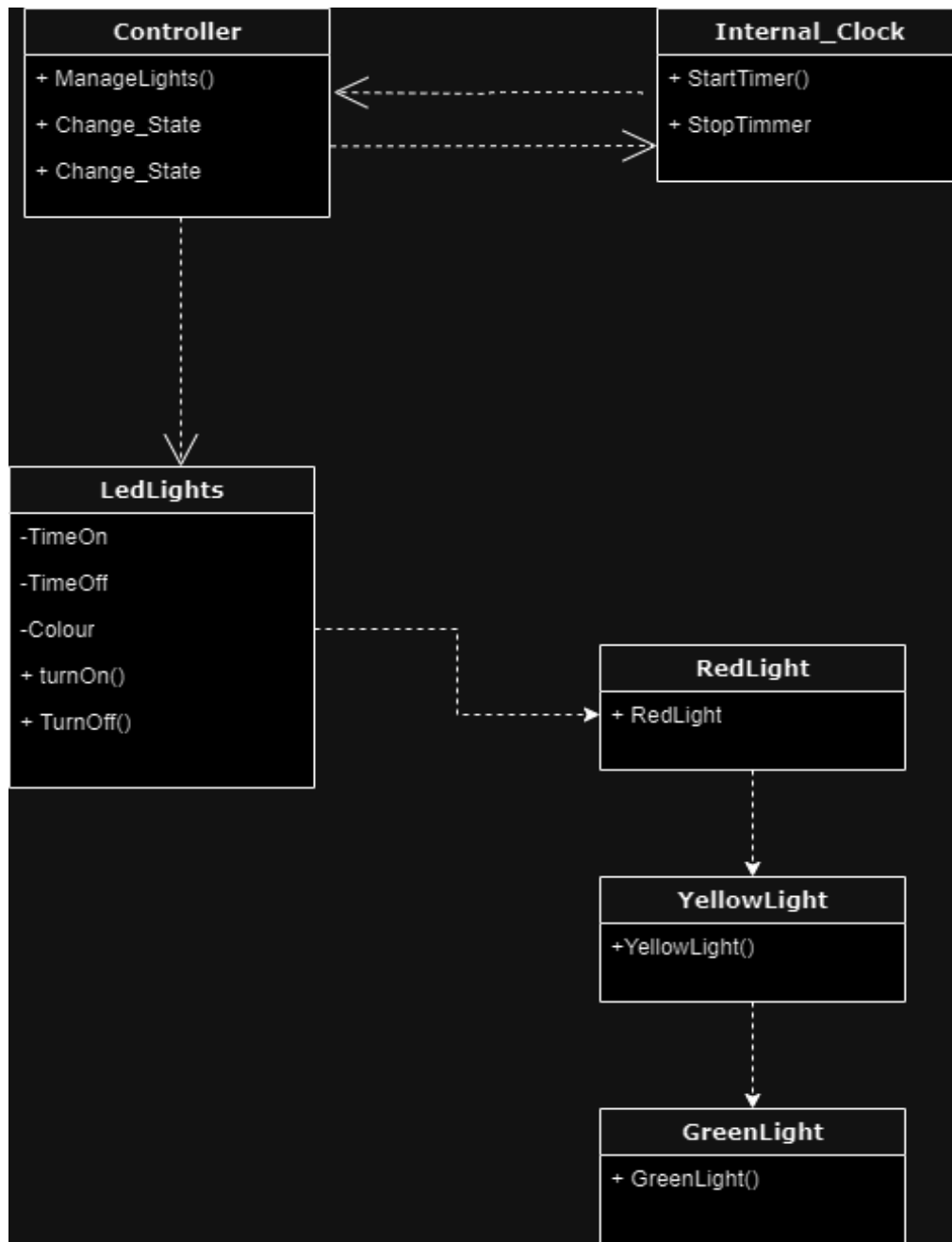
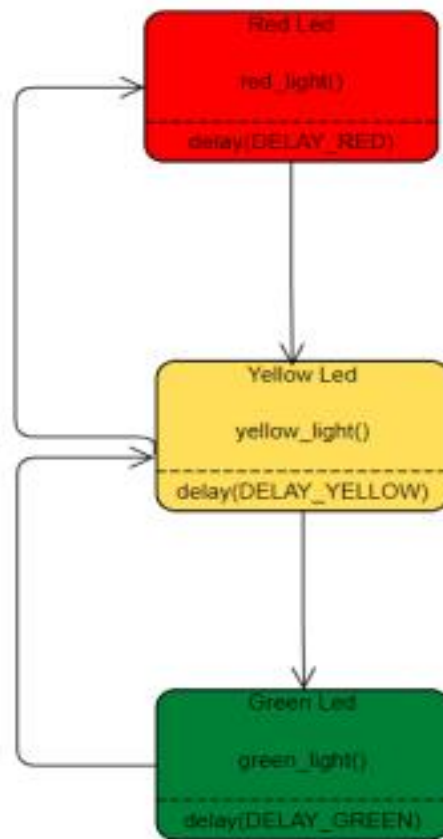


Microcontroller_Task-1

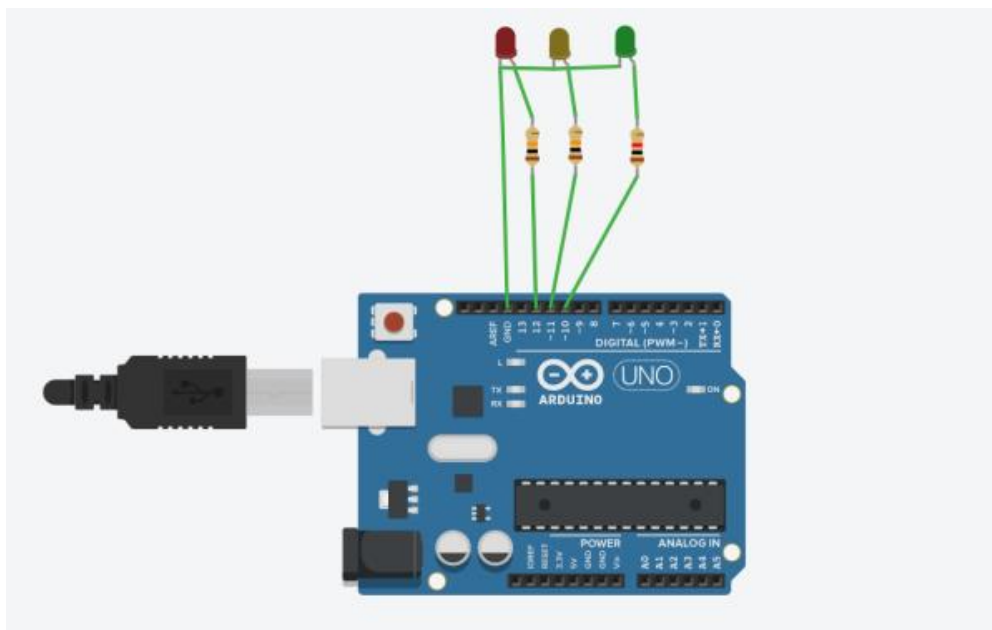
Class Diagram:



Machine Diagram:



Arduino-Setup:



Code For Arduino:

```
1  int red = 12;
2  int yellow = 11;
3  int green = 10;
4
5  void setup() {
6      pinMode(red, OUTPUT);
7      pinMode(yellow, OUTPUT);
8      pinMode(green, OUTPUT);
9  }
10
11 void loop() {
12     changeLights();
13     delay(1000);
14 }
15 void changeLights(){
16
17
18 // turn red on for 4 seconds
19     digitalWrite(green, LOW);
20     digitalWrite(yellow, LOW);
21     digitalWrite(red, HIGH);
22     delay(4000);
23
24 // Red off, yellow on for 3 seconds
25     digitalWrite(green, LOW);
26     digitalWrite(yellow, HIGH);
27     digitalWrite(red, LOW);
28     delay(3000);
29
30
31 // turn off yellow, then turn on green
32     digitalWrite(green, HIGH);
33     digitalWrite(yellow, LOW);
34     digitalWrite(red, LOW);
35     delay(3000);
36 //switch to yellow first then to green
37     digitalWrite(green, LOW);
38     digitalWrite(yellow, HIGH);
39     digitalWrite(red, LOW);
40     delay(1000);
41 }
42
```