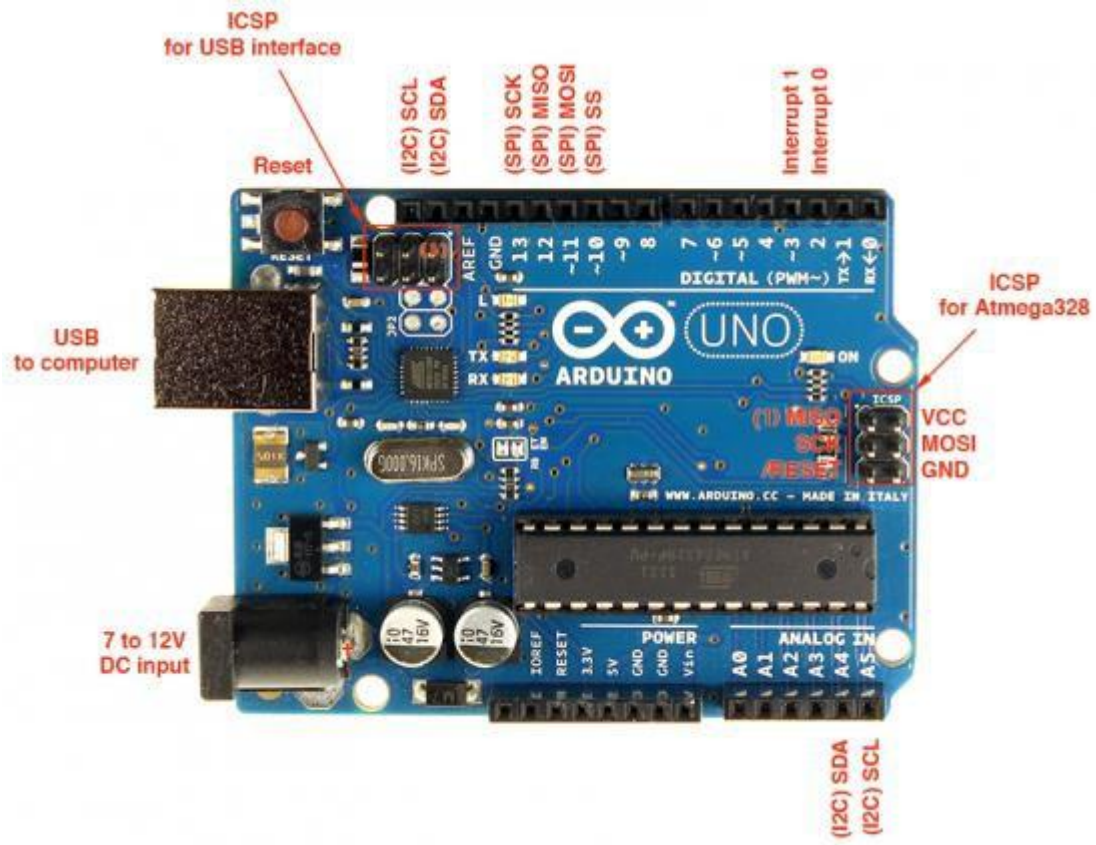
PIN Diagram of Arduino UNO



Procedure:-

First hook the 5V wire up from the Arduino to the positive rail on the breadboard. Next, hook the ground pin to the ground rail. Now, place the photoresistor onto the breadboard.

• Hook a wire from one end to the positive rail.

• On the other end have a wire go back to A0 (analog).

• Finally, on the other side of the wire add a 220-ohm resistor that goes to the ground rail. Place the 3 LEDs onto the breadboard. (Green, Yellow, Red)

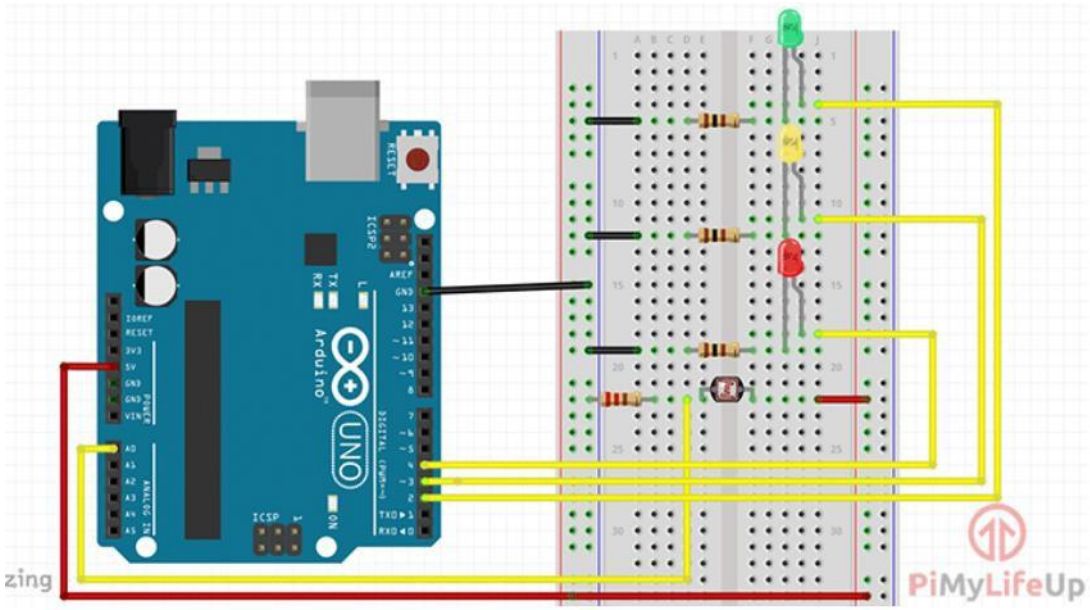
• On each of the LEDs add a 100-ohm resistor and have this go to the ground rail.

• Now place a wire back to the Arduino for each of the LEDs. Red to pin 4, yellow to pin 3, and finally green to pin 2. Now we're ready to turn it on and deploy the code. If you have had any trouble, please refer to the diagram below.

Code:-

```
int greenLedPin = 2;
int yellowLedPin = 3;
int redLedPin = 4;
  int lightSensorPin = A0;
int analogValue = 0; //Setting up the pin
void setup()
  {
pinMode(greenLedPin, OUTPUT);
pinMode(yellowLedPin,OUTPUT);
pinMode(redLedPin,OUTPUT)
}
void loop(){
analogValue = analogRead(lightSensorPin);
if(analogValue < 50){ digitalWrite(redLedPin, HIGH); }
else if(analogValue >= 50 && analogValue
<=100){ digitalWrite(yellowLedPin, HIGH);
}
  else{ digitalWrite(greenLedPin, HIGH); }
  delay(200);
  digitalWrite(greenLedPin, LOW);
  digitalWrite(yellowLedPin, LOW);
  digitalWrite(redLedPin, LOW); }
```

Circuit Diagram :-



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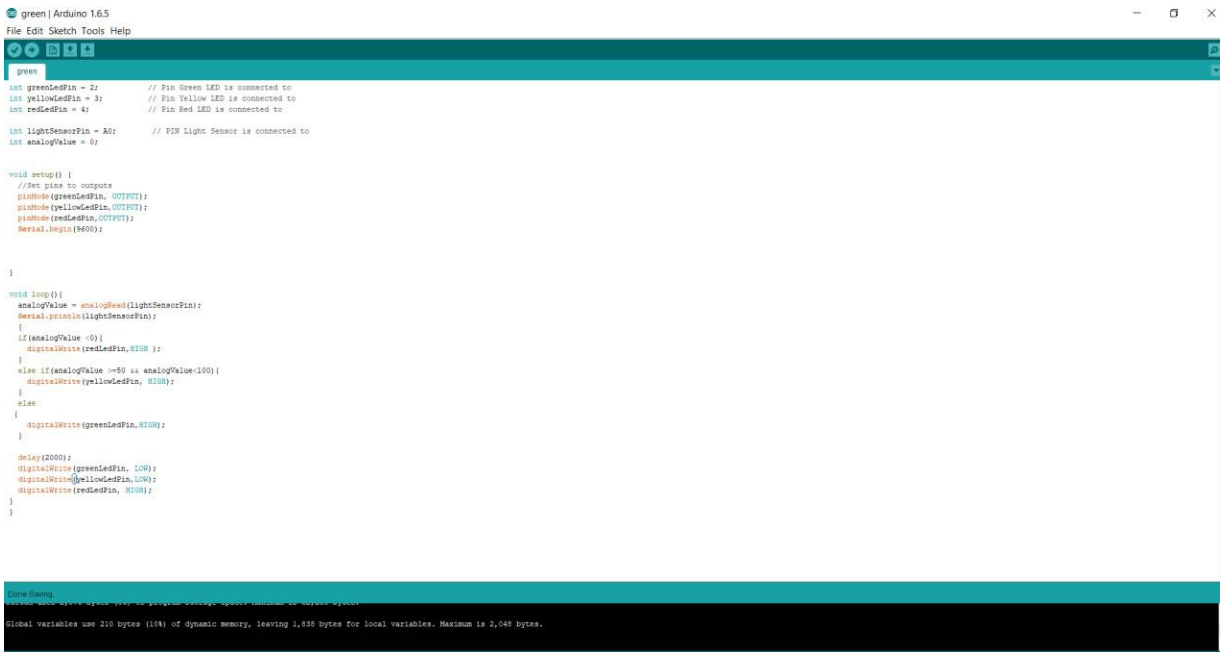
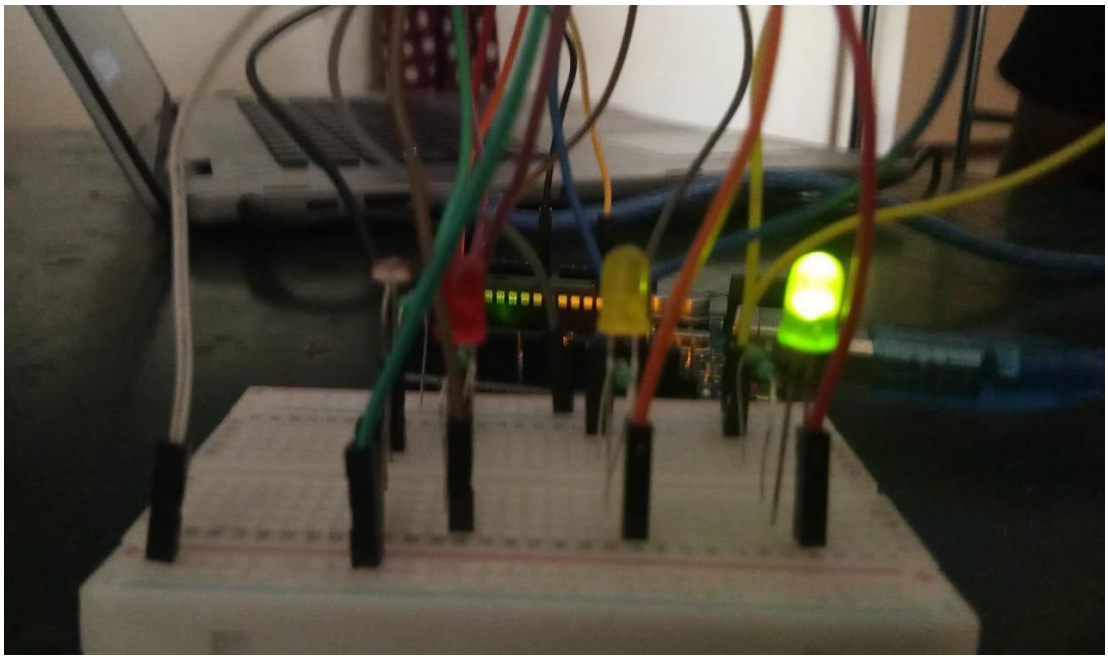
Output:-

For Green LED to get displayed

Code Snapshot

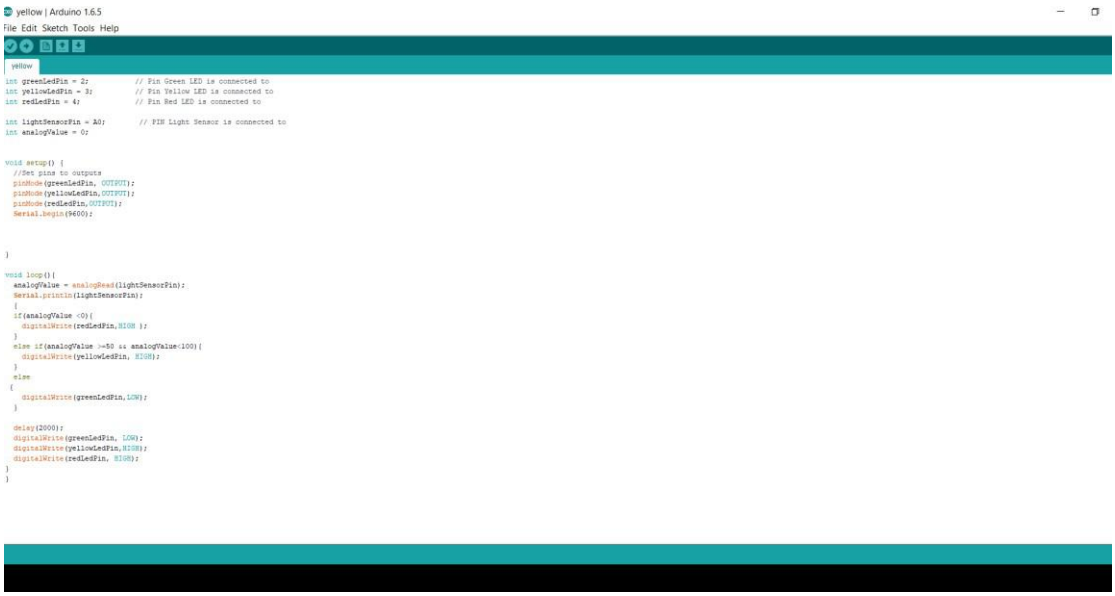


Output

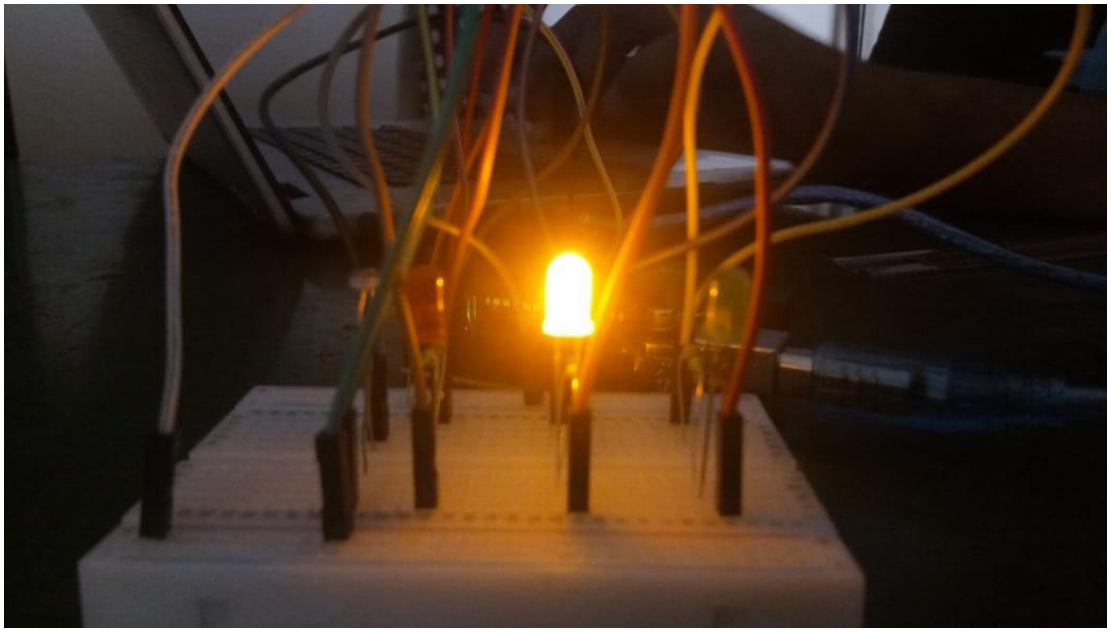


For Yellow LED to get displayed

Code snapshot

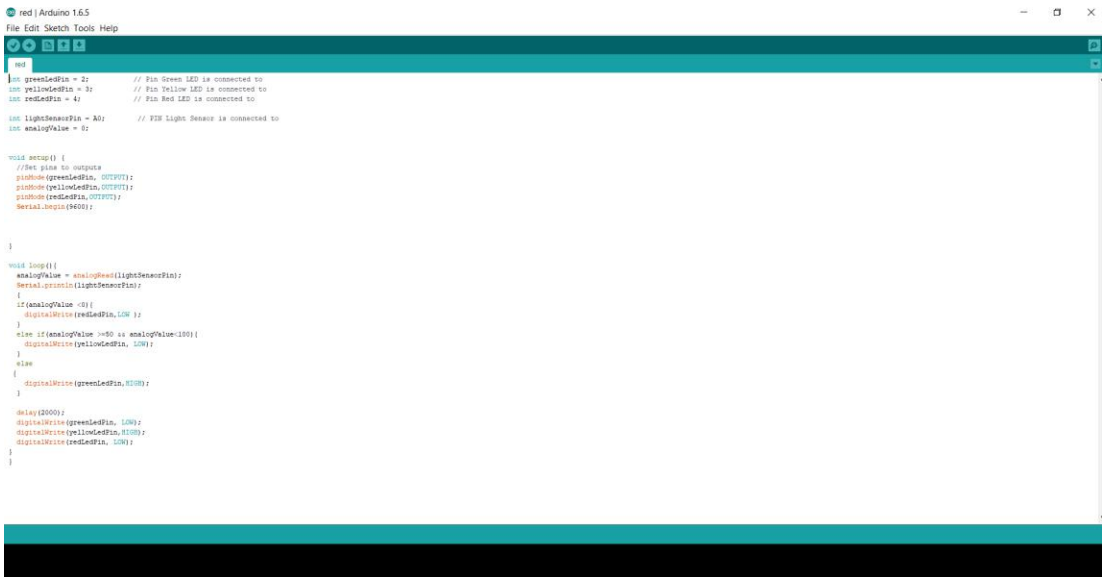


Output



For Red LED to get displayed

Code snapshot



Output