

ASSIGNMENT – I

DOMAIN: - IOT

TOPIC: - SMART HOME

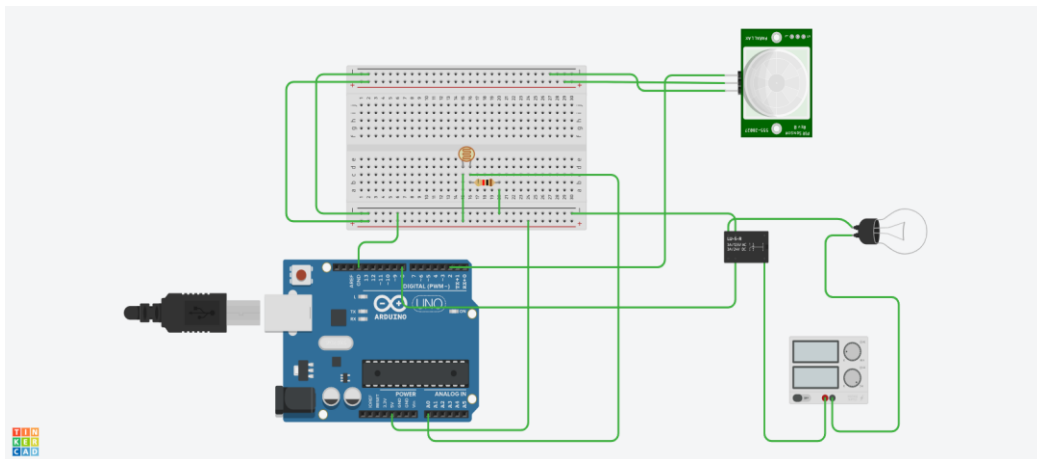
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**COLLEGE: - PANIMALAR OF
TECHNOLOGY**

**TOPIC: - AUTOMATIC ROOM
LIGHTNING SYSTEM**

SMART Home Circuit Connection:



COMPONENTS

<u>Quantity</u>	<u>Component</u>
1	Arduino Uno R3
1	PIR Sensor
1	5, 5 Power Supply
1	Light Bulb
1	Relay SPDT
1	Photoresistor
1	1 K Ohm Resistor
1	Temperature sensor

CODE

```
// C++ code
//
int LightSensorVal = 0;

int PIRSensorVal = 0;

int RelayOutputVal = 0;

void setup()
{
  pinMode(A0, INPUT);
  pinMode(2, INPUT);
  pinMode(8, INPUT);
  pinMode(8, OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  LightSensorVal = analogRead(A0);
  PIRSensorVal = digitalRead(2);
  RelayOutputVal = digitalRead(8);
  if (LightSensorVal < 600) {
    if (PIRSensorVal == HIGH) {
      digitalWrite(8, HIGH);
      delay(1000); // Wait for 1000 millisecond(s)
    } else {
      digitalWrite(8, LOW);
      delay(1000); // Wait for 1000 millisecond(s)
    }
  } else {
    digitalWrite(8, LOW);
    Serial.println(LightSensorVal);
    delay(300); // Wait for 300 millisecond(s)
  }
}
```

LINK:- <https://www.tinkercad.com/things/lACwqeAPbjS>

