**ASSIGNMENT 4 – S.KARTHIKSANKAR**

**CODE:**

|  |
| --- |
| // Tinkercad Arduino : Automatic Room Lightning System |
|  | int LightSensorVal = 0; //Input Sensor |
|  | int PIRSensorVal = 0; //Input S |
|  | int RelayOutputVal = 0; //Output Relay |
|  |  |
|  | void setup() |
|  | { |
|  | pinMode(A0, INPUT); // Read the LDR sensor Value digital Input |
|  | pinMode(2, INPUT); // Read the PIR motion sensor value digital Input |
|  | pinMode(8, OUTPUT); // Write the Relay output value, digital output |
|  | Serial.begin(9600); |
|  | } |
|  |  |
|  | void loop() |
|  | { |
|  | LightSensorVal = analogRead(A0); |
|  | PIRSensorVal = digitalRead(2); |
|  | RelayOutputVal = 8; |
|  | if (LightSensorVal < 600) { |
|  | if (PIRSensorVal == HIGH) { |
|  | digitalWrite(8, HIGH); |
|  | delay(5000); // Wait for 5000 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) |
|  | } |
|  | } |