IBM PROJECT

NALAIYA THIRAN

**ASSIGNMENT 1**

**Description:**

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| The sensors connected to the microcontroller board are LM35, PIR and LDR sensor. LM35 is used to sense the temperature level in the house while LDR sensor is to sense the light intensity. ... The data sensed by the sensors are then used as feedback for automatic control of home appliances. The Main thing about these project is the whole project is only works when Somebody is present in front of PIR sensor Otherwise is turned OFF at all time. |
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| Things that you need |
| • Arduino |
| • PIR |
| • LDR |
| • LM35 |
| • Dc power source (Any 12v) |
| Relay Board of 2 channel |
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|  |
| **Code:** |
|  |
| float x,y,z,temp; |
| void setup() |
| { |
| pinMode(8, INPUT); |
| pinMode(5, OUTPUT); |
| pinMode(6, OUTPUT); |
| pinMode(A5, INPUT); |
| pinMode(A4, INPUT); |
| Serial.begin(9600); |
| } |
| void loop() |
| { |
| x= digitalRead(8); |
| y= analogRead(A5); |
| z= analogRead(A4); |
| Serial.println(x); |
| Serial.println(y); |
| Serial.println(z); |
| temp = (double)z / 1024; |
| temp = temp \* 5; |
| temp = temp - 0.5; |
| temp = temp \* 100; |
| if ( (x>0) ) |
| { |
| if ((y<550)&&(temp>30)) |
| { |
| digitalWrite(5, HIGH); |
| digitalWrite(6, HIGH); |
| } |
| else if((y<550)&&(temp<30)) |
| { |
| digitalWrite(5, HIGH); |
| digitalWrite(6, LOW); |
| } |
| else if((y>550)&&(temp>30)) |
| { |
| digitalWrite(5, LOW); |
| digitalWrite(6, HIGH); |
| } |
| else if((y>550)&&(temp<30)) |
| { |
| digitalWrite(5, LOW); |
| digitalWrite(6, LOW); |
| } |
| } |
| else |
| { |
| digitalWrite(5, LOW); |
| digitalWrite(6, LOW); |
| } |
| } |
|  |
|  |
| **OUTPUT:**  **CIRCUIT DIAGRAM:** |