PANIMALAR ENGINEERING COLLEGE

Department of Electronics and Communication Engineering IOT Assignment

**Topic:** Assignment on home automation using Arduino

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**Code:-**

#include <IRremote.h>

#include <LiquidCrystal.h>

const int RECV\_PIN = 8;

IRrecv irrecv(RECV\_PIN);

decode\_results results;

LiquidCrystal lcd(7, 6, 5, 4, 3, 2);

int x=0;

int y=0;

int z=0;

void setup() {

pinMode(12, OUTPUT);

pinMode(10, OUTPUT);

pinMode(9, OUTPUT);

irrecv.enableIRIn();

Serial.begin(9600);

lcd.begin(16, 2);

lcd.setCursor(0,0);

lcd.print("Home Automation");

}

void loop() {

if (irrecv.decode(&results))

{

lcd.clear();

lcd.setCursor(0,0);

lcd.print("Bulb Fan Speed");

if(results.value == 0xFD08F7)

{

x++;

if(x%2==1)

{

digitalWrite(12, HIGH);

lcd.setCursor(0,2);

lcd.print("ON");

}

else

{

digitalWrite(12, LOW);

lcd.setCursor(0,2);

lcd.print("OFF");

}

}

if(results.value == 0xFD8877)

{

y++;

if(y%2==1)

{

digitalWrite(9, HIGH);

lcd.setCursor(5,2);

lcd.print("ON");

lcd.setCursor(9,2);

lcd.print(z);

}

else

{

digitalWrite(9, LOW);

lcd.setCursor(5,2);

lcd.print("OFF");

lcd.setCursor(9,2);

lcd.print(z);

}

}

if(results.value == 0xFD807F && z>=0 && z<6)

{

z++;

if(z==1)

{

analogWrite(10, 51);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==2)

{

analogWrite(10, 102);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==3)

{

analogWrite(10, 153);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==4)

{

analogWrite(10, 204);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==5)

{

analogWrite(10, 255);

lcd.setCursor(9,2);

lcd.print(z);

}

}

if(results.value == 0xFD906F && z>0 && z<=6)

{

z--;

if(z==1)

{

analogWrite(10, 51);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==2)

{

analogWrite(10, 102);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==3)

{

analogWrite(10, 153);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==4)

{

analogWrite(10, 204);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==5)

{

analogWrite(10, 255);

lcd.setCursor(9,2);

lcd.print(z);

}

if(z==0)

{

analogWrite(10, 0);

lcd.setCursor(9,2);

lcd.print(z);

}

}

Serial.println(results.value, HEX);

Serial.print(x);

Serial.print(y);

Serial.print(z);

irrecv.resume();

}

}

**Output:-**

