/\* Make a smart home in tinkercad useing 2+

sensors ,LED,buzzer in a single code and circuit :

@ Temperature sensor setup for control the motor(fan) speed

w.r.t temperature indicators(lights(RGB),LED & buzzer)

@ Photo sensor setup for control the intensity of optical

source potential level

@ PIR sensor Setup for motion detector with indicators-LED

and buzzer \*/

void setup()

{

Serial.begin(14400); //Baud Rate

pinMode(11,OUTPUT); //digital pin declaration

pinMode(3,OUTPUT);

pinMode(5,OUTPUT);

pinMode(12,OUTPUT);

pinMode(12,OUTPUT);

pinMode(8,OUTPUT);

pinMode(4,OUTPUT);

pinMode(2,OUTPUT);

}

void loop()

{

double s= analogRead(A5); //optical resistor analog read

//4 level LED o/p inverse instead of photo resister signal

//Max levelof digital read for photo\_R=169,analog\_Write=255

if(s<=42)

analogWrite(11,255);

else if (s<=84)

analogWrite(11,128);

else if(s<=126)

analogWrite(11,64);

else

{ analogWrite(11,0);

tone(3,500,50); //sonic signal

}

double data=analogRead(A4);

double n=data/1024;

double volt=n\*5;

double off=volt-0.5;

double t=off\*100;

Serial.println("Temperature value:");

Serial.println(t);

//4 level temperature indicater ORGB,3 level motor speed

if(t<=0)

{ digitalWrite(4,HIGH);

// Indicate Red signal when Negative\_temp

digitalWrite(8,LOW); }

// temp value oscillates b/w +&-

else if(t<=50)

{ digitalWrite(4,LOW);

//Indicate Green signal when temp 0-50c

digitalWrite(8,LOW);

digitalWrite(12,HIGH);

analogWrite(5,64); }

//(25%,1.25v);Control motor speed

else if(t<=100)

{ digitalWrite(12,LOW);

//Indicate Blue signal when temp 50-100c

digitalWrite(13,LOW);

digitalWrite(8,HIGH);

analogWrite(5,128); }

//(50%,2.5v);Control motor speed

else

{

digitalWrite(8,LOW);

//Indicate Red signal when temp above 100c

digitalWrite(13,HIGH);

analogWrite(5,255);

//(100%,5v);Control motor speed

tone(3,1000,100); } //Sonic signal

int m=digitalRead(A3); //Motion sensor(Boolian logic)

if(m==1)

{

digitalWrite(2,HIGH);

// Indicate Green signal when motion detected

tone(3,1500,50); // sonic signal

delay(700);

}

else

digitalWrite(2,LOW);

}