**SMART HOME USING ARDUINO**

float x,y; //TEMP

#define trigPin 12 //ULTRA

#define echoPin 10

int ledPin= 13;

int duration, distance; //ULTRA

#include<Servo.h> //servo

Servo my; //servo

char val; //bluetooth

void setup() {

Serial.begin(9600);

pinMode(2,INPUT); //IR GATE FIRST

pinMode(3,INPUT);

my.attach(11); //servo

pinMode(4, OUTPUT); //IR GATE FIRST

pinMode(7,OUTPUT); //TEM

pinMode(8,INPUT); //pir 1

pinMode(9,OUTPUT); //LED 1

// pinMode(10,INPUT); //pir 2

//pinMode(11,OUTPUT); //LED2

pinMode(trigPin, OUTPUT); //12 PIN ULTRA

pinMode(echoPin, INPUT); //10 PIN ULTRA

pinMode(ledPin, OUTPUT); //13 PIN ULTRA

pinMode(3,OUTPUT); //bluetooth

}

void loop() {

x=analogRead(0); //TEMP

y=((x/1024)\*5)\*100;

Serial.println(y);

delay(500);

if(y>44)

{

digitalWrite(7,1);

}

else

{

digitalWrite(7,0);

delay(500);

}

//TEMP

if(digitalRead(8)==HIGH) //pir

{

digitalWrite(9,HIGH);

}

else

{

digitalWrite(9,LOW);

}

digitalWrite(trigPin, HIGH); //ULTRA

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distance = (duration/2) / 29.1;

if (distance >= 10 || distance <= 0)

{

// Serial.println("no object detected");

digitalWrite(ledPin,LOW);

}

else

{

Serial.println("object detected \n");

Serial.print("distance= ");

Serial.print(distance);

digitalWrite(ledPin,HIGH);

} //ULTRA

if(digitalRead(2)==HIGH) //gate first

{

my.write(0); //servo

}

else

{

my.write(90); //servo

}

analogRead(5); //ldr

float a = analogRead(5);

Serial.println(a);

if (a <=200) {

digitalWrite(4,1);

Serial.println("LDR is DARK, LED is ON");

}

else

{

digitalWrite(4,0);

Serial.println("-----");

} //ldr

if (Serial.available()) //bluetooth

{

val = Serial.read();

Serial.println(val);

if(val == 'TV')

digitalWrite(3,HIGH);

else if(val == 'tv')

digitalWrite(3,LOW);

} //bluetooth

}