V.S.B. ENGINEERING COLLEGE, KARUR

Department of Electronics and Communication Engineering

TITLE : Industry Specific Intelligence Fire Management System

DOMAIN NAME : Internet of Things

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Coding :

```
#include<servo.h>
int us = 6;
 int servo = 7;

Servo servo1;

void setup() {
 Serial.begin(9600);
 servo1.attach(servo);
 pinMode(2,INPUT);
 pinMode(4,OUTPUT);
 pinMode(11,OUTPUT);
 pinMode(12,OUTPUT);
 pinMode(13,OUTPUT);
 pinMode(A0,INPUT);
 digitalWrite(2,LOW);
 digitalWrite(11,HIGH);

}
```

```
void loop() {

 long duration, inches, cm;

 pinMode(us, OUTPUT);
 digitalWrite(us, LOW);
 delayMicroseconds(2);
 digitalWrite(us, HIGH);
 delayMicroseconds(5);
 digitalWrite(us, LOW);

 pinMode(us, INPUT);
 duration = pulseIn(us, HIGH);


 Inches = microsecondsToInches(duration);
 cm = microsecondsToCentimeters(duration);


servo1.write(0);

if(cm < 30)
{
servo1.write(120);
Serial.println("A Person Arrived, Door is Opening.....");
delay(2000);
}
else
{
servo1.write(0);
Serial.println("Door is Closed.....");
```

```
}
int pir = digitalRead(2);
if(pir == HIGH)
{
digitalWrite(4,HIGH);
delay(3000);
}
else if(pir == LOW)
{
digitalWrite(4,LOW);
}
float value=analogRead(A0);
float temp=(((value/1024)*5.0199)-0.5)*100;
Serial.print("temp is ");
Serial.println(temp);
delay(3000);
if(temp > 20)
{
digitalWrite(12,HIGH)
digitalWrite(13,LOW);
}
else
{
digitalWrite(12,LOW);
digitalWrite(13,LOW);
}
}
long microsecondsToInches(long microseconds)
{
return microseconds / 74 / 2;
}
```

```
long microsecondsToCentimeters(long microseconds)
{
return microseconds / 29 / 2;
}
```