V.S.B. ENGINEERING COLLEGE

Department of Electronics and Communication Engineering

TITLE **:** Industry-specific intelligent fire management system.

DOMAIN NAME **:** Internet of Things

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MENTOR NAME **:** Ms. S. Janani

Assignment 1:

Make a Smart Home in Tinkercad, using 2+ sensors, Led, Buzzer in single code and circuit.

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;

}
```