V.S.B. ENGINEERING COLLEGE, KARUR Department of Electronics and Communication Engineering

DOMAIN NAME : Internet of Things

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OBJECTIVE:

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

CODE:

```
int trig=3;
int echo=5;
void setup()
{
pinMode(trig,OUTPUT);
pinMode(echo,INPUT);
pinMode(7,INPUT);
Serial.begin(9600);
pinMode(10,OUTPUT);
pinMode(4,OUTPUT);
pinMode(12,OUTPUT);
}
```

```
void loop()
{
double a=analogRead(A2);
Serial.print("adc value:");
Serial.println(a);
double v=a/1024;
double tvolt=v*5;
Serial.print("temp volt:");
Serial.println(tvolt);
```

```
double o=tvolt-0.5;
double t=o*100;
Serial.print("temp is:");
Serial.println(t);
digitalWrite(trig,LOW);
digitalWrite(trig,HIGH);
delayMicroseconds(10);
digitalWrite(trig,LOW);
float dur=pulseIn(echo,HIGH);
float dist=(dur*0.0343)/5;
Serial.println("distance:");
Serial.println(dist);
int m=digitalRead(7);
Serial.print("motion detected : ");
Serial.println(m);
if(t>=60)
{
Serial.println("high temperature");
digitalWrite(10,HIGH);
}
else
{
Serial.println("low temperature");
digitalWrite(10,LOW);
}

if(dist<=20)
{
Serial.println("door open");
digitalWrite(4,HIGH);
}
else
{
```

```
Serial.println("door close");
digitalWrite(4,LOW);
}

if(m==1)
{
Serial.println("on the light");
digitalWrite(12,HIGH);
delay(50);
}
else
{
Serial.println("off the light");
digitalWrite(12,LOW);
}
delay(50);
}
```

Output: