

Assignment -1

Assignment Date	13 September 2022
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Maximum Marks	2 Marks

Question-1:

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

Solution:

```
int trig = 2;
int echo = 3;
void setup()
{
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  Serial.begin(9600);
  pinMode(7,OUTPUT);
  pinMode(8,OUTPUT);
  pinMode(13,INPUT);
  pinMode(1,OUTPUT);
}
void loop()
{
  digitalWrite(trig,LOW);
  digitalWrite(trig,HIGH);
  delayMicroseconds(10);
  digitalWrite(trig,LOW);
  float dur = pulseIn(echo,HIGH);
  float dist = (dur*0.0343)/2;
  Serial.print("Distance");
  Serial.println(dist);
  if(dist>=100){
    digitalWrite(7,HIGH);
    delay(100);
  }
  else{
    digitalWrite(7,LOW);
    delay(100);
  }
  double a=analogRead(A1);
  Serial.print("Adc Value:");
  Serial.println(a);
  double v= a/1024;
  double tvolt= v*5;
  Serial.print("temp value voltage:");
  Serial.println(tvolt);
  double o = tvolt-0.5;
```

```

double t= o*100;
Serial.print ("Temperature is :");
Serial.println(t);
if (t>=300)
{
digitalWrite(8,HIGH);delay(1000);
}
else
{
digitalWrite(8,LOW);
delay(1000);
}
int m = digitalRead(13);
Serial.print("Motion detector");
Serial.println(m);
if(m == 1){
Serial.println("yes");
digitalWrite(1,HIGH);
}
else{
Serial.println("No");
digitalWrite(1,LOW);
}
}

```

Circuit :

