

ASSIGNMENT-1

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Aim Make a smart home in Tinkercad using two are more sensors ,LED ,Buzzer in single code and circuit.

Program

```
int trigger_pin=2;

int echo_pin=3;

int time; int distance;

void setup() { Serial.begin(9600);

  pinMode(trigger_pin,OUTPUT);

  pinMode(echo_pin,INPUT);

  pinMode(4,INPUT);

  pinMode(13,OUTPUT);

}

void loop()

{

  digitalWrite(trigger_pin,HIGH);

  delayMicroseconds(10);

  digitalWrite(trigger_pin,LOW);

  time=pulseIn(echo_pin,HIGH);

  distance=(time*0.034)/2;

  if(distance<=10) { Serial.println("Door open");

    Serial.print("Distance=");

    Serial.println(distance);

    delay(500);

  }
```

```
Else
{
Serial.println("Door closed");

Serial.print("Distance=");

Serial.println(distance);

delay(500);

int p=digitalRead(4);

if(p) { digitalWrite(13,HIGH);

Serial.println("motion detected");

}

Else

{

digitalWrite(13,LOW);

Serial.println("not detected");

}

}

}
```

OUTPUT:

