

## ASSESSMENT-1

ASSESSMENT DATE	19 SEPTEMBER 2022
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MARKS	2 Marks

### PROBLEM:

Home Automation using Tinkercad.

### CODE:

```
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");
}
}
}
}

```

## CIRCUIT SCREENSHOT:

