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: