

Program no : 12

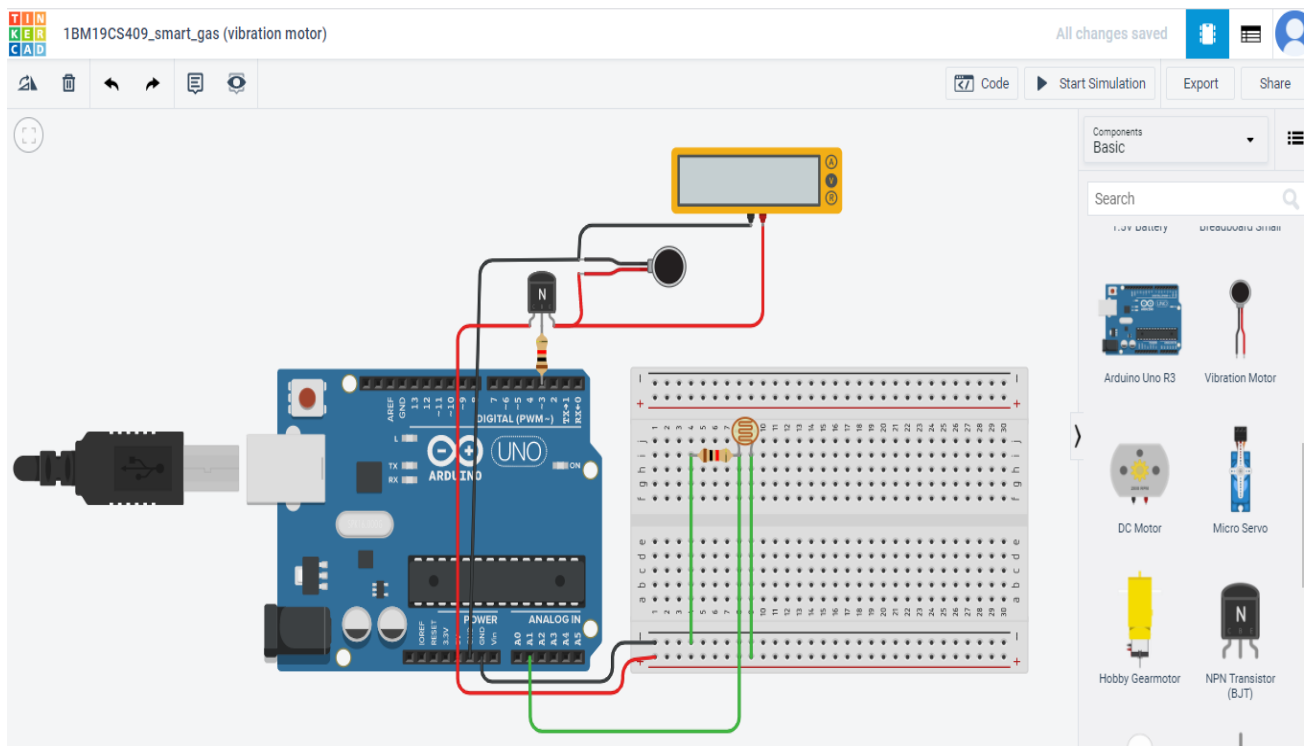
Program Title : Smart gas leakage system (vibration motor)

Aim : Design an automated day indicator system using vibration motor.

Hardware Required

- Arduino Board
- Wires
- Breadboard
- Resistor
- Multimeter
- Vibration motor
- Photoresistor
- NPN transistor

Circuit Diagram :



Code:

Sumalata
18M19CS409

Ajay

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Program - 12 Smart gas detection (vibration motor)

```
int motorPin = 3;
int sensorPin = A1;
int threshold = 400;
void setup()
{
    pinMode(motorPin, OUTPUT);
    Serial.begin(9600);
}
void loop()
{
    int sensorValue = analogRead(sensorPin);
    Serial.println(sensorValue);
    if (sensorValue > threshold)
    {
        digitalWrite(motorPin, HIGH);
    }
    else {
        digitalWrite(motorPin, LOW);
        delay(1000);
    }
}
```

```
int motorPin=3;  
int sensorPin=A1;  
int threshold=400;
```

```
void setup()  
{  
  pinMode(motorPin, OUTPUT);  
  Serial.begin(9600);  
}
```

```
void loop()  
{  
  int sensorValue=analogRead(sensorPin);  
  Serial.println(sensorValue);  
  if(sensorValue > threshold)  
  {  
    digitalWrite(motorPin, HIGH);  
  }  
  else  
  {  
    digitalWrite(motorPin, LOW);  
  }  
  delay(1000);  
}
```

Observation /Output :

TINKERCAD 1BM19CS409_smart_gas (vibration motor) All changes saved

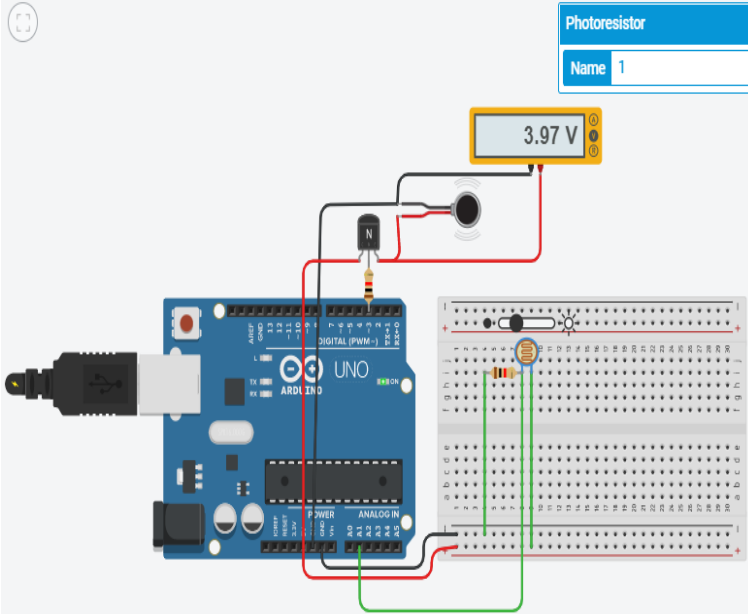
Simulator time: 00:00:19

Code Stop Simulation Export Share

1 (Arduino Uno R3)

Photoresistor
Name 1

3.97 V



```
1 int motorPin=3;
2 int sensorPin=A1;
3 int threshold=400;
4
5 void setup()
6 {
7   pinMode(motorPin, OUTPUT);
8   Serial.begin(9600);
9 }
10
11 void loop()
12 {
13   int sensorValue=analogRead(sensorPin);
14   Serial.println(sensorValue);
15   if(sensorValue > threshold)
16   {
17     digitalWrite(motorPin, HIGH);
18   }
19   else
20   {
21     digitalWrite(motorPin, LOW);
22   }
23   delay(1000);
24 }
```

Serial Monitor

6
252
252
158
158
411
411

Send Clear