



TITLE

ALCOHOL DETECTION SYSTEM

CONTENTS

- Problem statement
- Scope of the solution
- Required components
- Simulated circuit
- Video of the demo
- Gerber file
- Code for the solution

PROBLEM STATEMENT

The main purpose behind this project is “drunken driving detection” ,now a days many accidents are happening because of the alcohol consumptions of the drivers .Thus drunk driving is a major reason for accidents all over the world

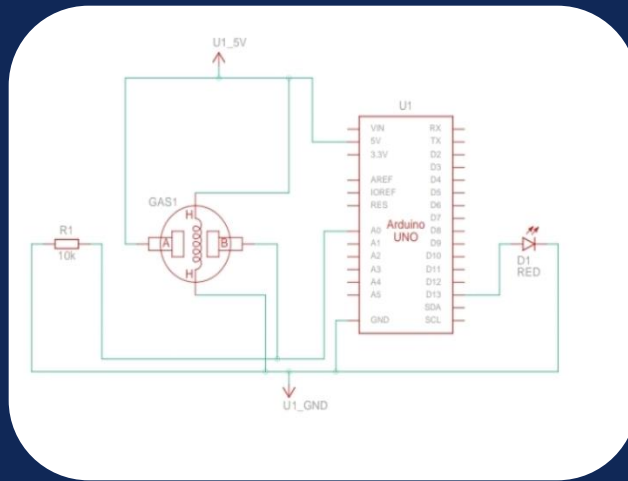
SCOPE OF THE SOLUTION

This system can be used to detect alcohol and prevents the consumption. Thus, in future it can be made as an useful service to the government to stop consumption of alcohol which ultimately saves many lives.

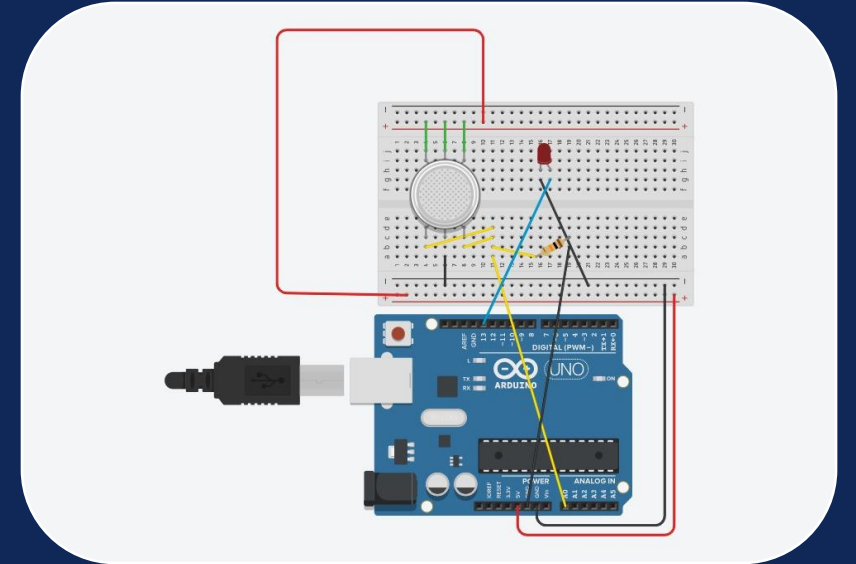
REQUIRED COMPONENTS

- ❖ Arduino Uno R3
- ❖ Gas Sensor
- ❖ 10 ka Resistor
- ❖ Red LED
- ❖ Bread Board
- ❖ Jumper Wires
- ❖ A Buzzer

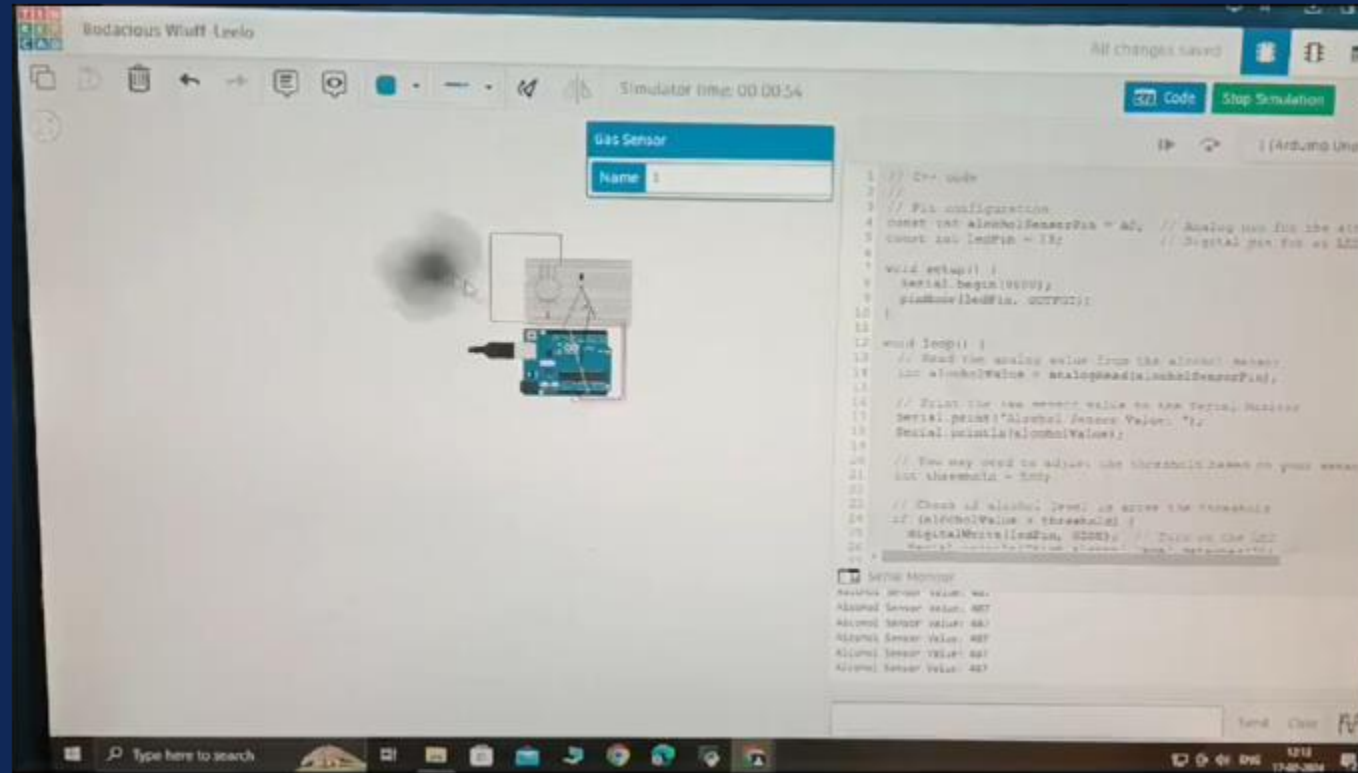
SIMULATED CIRCUIT



Circuit diagram



VIDEO OF THE DEMO



GERBER FILE

	A	B	C	D	E
1	Test Name	Quantity	Component		
2	U1	1	Arduino Uno R3		
3	GAS1	1	Gas Sensor		
4	R1	1	10 kΩ Resistor		
5	D1	1	Red LED		
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					

CODE FOR THE SOLUTION

```
// c++ code
```

```
//
```

```
//pin configuration
```

```
Const int alcohol sensor pin= A0;    // analog pin for the alcohol sensor
```

```
Const int led pin =13                // digital pin for an led
```

```
Void setup( ){
```

```
Serial .begin(9600);
```

```
Pin mode( led pin, output);
```

```
}
```

```
Void loop() {  
  // read the analog value from the alcohol sensor  
  int alcohol value = analog read  
  (alcohol sensor pin);  
  
  //print the raw sensor value to the serial monitor  
  serial .print ("alcohol sensor value  
  :"); serial .print (alcohol value );  
  
  // you may need to adjust the threshold based on your sensor and environment  
  
  Int threshold =500;  
  
  //check if alcohol level is above the threshold  
  if ( alcohol value > threshold ){  
    Digital write (led pin , HIGH);    //turn on the led  
  
    Serial .print in (" high alcohol level detected !");  
  
  } else {  
  
    Digital write (led pin , low );    // turn off the led  
  
  }  
  
  Delay (1000);    //delay for stability  
  
}
```

GITHUB LINK

<https://github.com/BoppasamudramAswitha/Aswitha.git>