Anti-Alcohol Helmet Project

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Project Background

Rise in Accidents

Drunk driving accidents are a major issue globally and globally and often result in fatal consequences. consequences.

Heavy Drinking Culture

Alcohol consumption is often a socially behavior that behavior that contributes to the problem.

Ineffective Laws

Current laws, such as alcohol limits for driving, have have only been marginally successful in tackling the tackling the problem.

Problem Statement

Alcohol-Impaired Driving

Drunk driving is a common problem that causes accidents and deaths on the roads.
roads.

Ineffective Solutions

Current solutions, such as law enforcement and alcohol limits for driving, have limitations in
limitations in detecting impaired drivers.

Need For Innovation

There is an urgent need for alternative solutions to control and detect alcohol-impaired driving.
impaired driving.

Abstract:

The project works based on the gas sensor which will be placed in a helmet, when the sensor detects alcohol a signal is sent to the processor. When the processor gets the signal it makes sure that the bike won’t start. The LED placed will indicate the presence of alcohol.

Overview of Arduino

1

Introduction to Arduino

Arduino is a cost-effective, open-source platform used for creating interactive projects.

2

Main Components

The board consists of a microcontroller, a bootloader, and programmable input/output peripherals.

3

Key Features

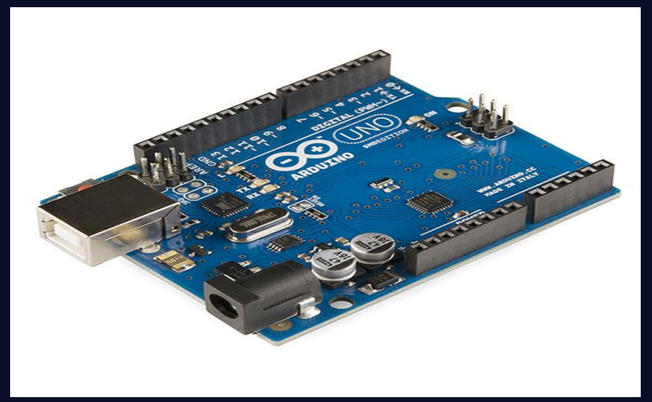
Some key features include its flexibility, flexibility, user-friendly interface and reduced barriers to entry in programming programming for non-experts.

ARDUINO Code:

```
#define sensorDigital 4
#define LED 5
#define motor 12
void setup(){
pinMode(sensorDigital, INPUT);
pinMode(LED, OUTPUT);
pinMode(motor, OUTPUT);
Serial.begin(9600);
}
void loop(){
  digitalWrite(motor,HIGH);
bool digital= digitalRead(sensorDigital);

Serial.print("Digital value");
Serial.println(digital);
if(digital==0){
  digitalWrite(LED,HIGH);
  digitalWrite(motor,LOW);
  delay(1000);
}
else{
  digitalWrite(LED, LOW);
}
}
```

Components Used



Arduino

Arduino UNO board is used as the brain of the project.

Alcohol Sensor

The gas sensor (MQ-3) detects detects alcohol concentration by by calculating the change in resistance inside it and sends a a signal to the microcontroller which triggers an alert.

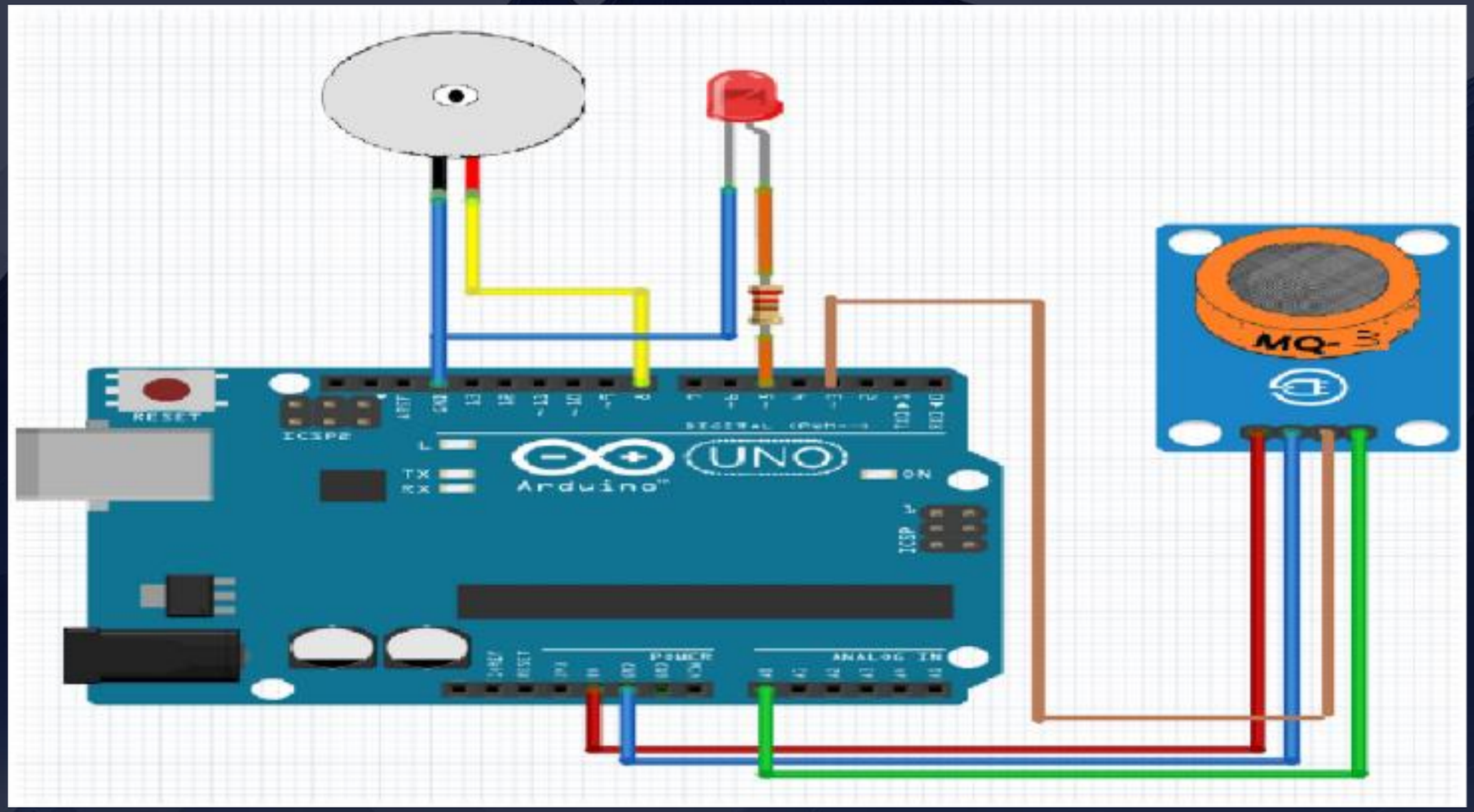
LED

LED used to denote the presence of alcohol

DC Motor

Here motor is used to represent a bike.

Circuit Diagram:



Conclusion

In summary,

the Anti-Alcohol Helmet project uses Arduino to detect alcohol impairment in real time and stops bike from starting, thereby reducing incidents of drunk driving.

Future Implications

The project has the potential to transform the current transport system by reducing the number of fatalities and helping the government to save costs that would have been spent on traffic offenses.

Thank You!