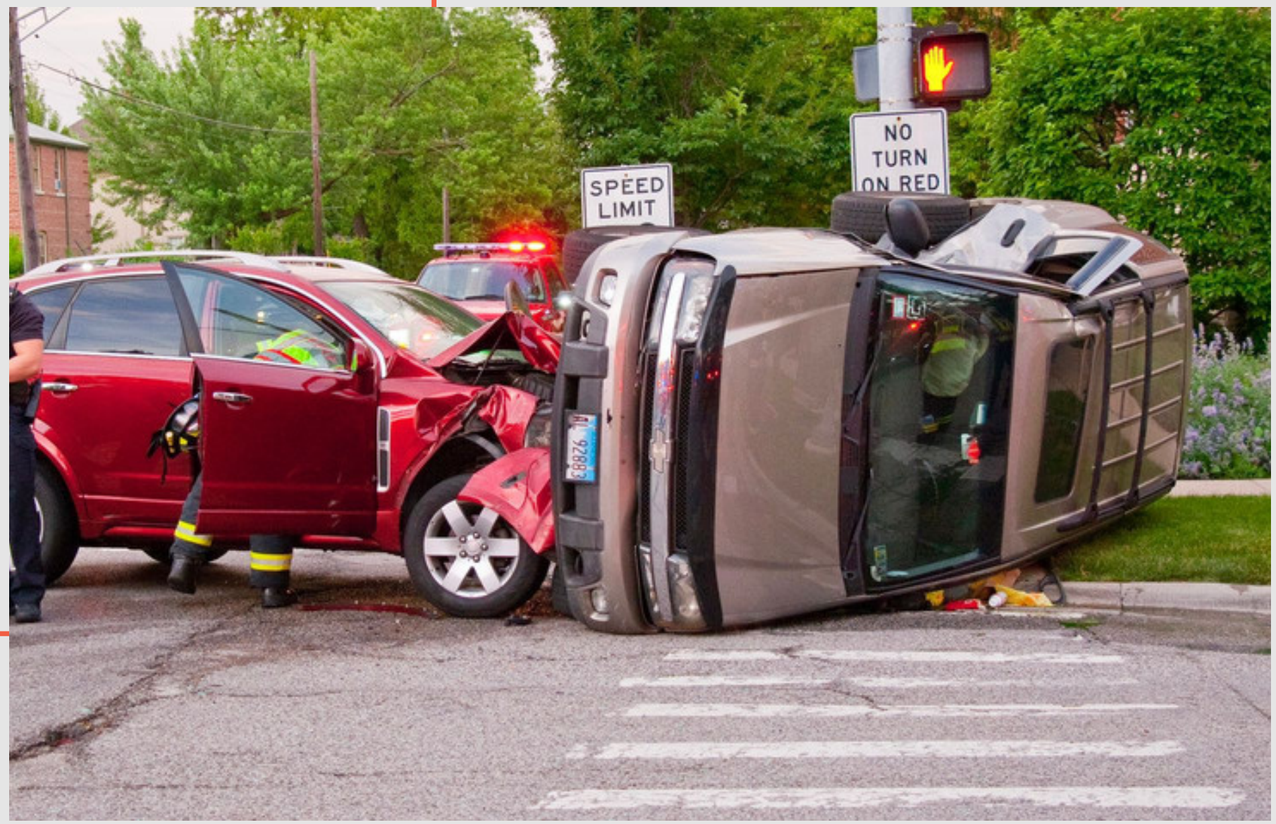
BTech Project
Sem VI

SMART IGNITION INTERLOCK DEVICE.



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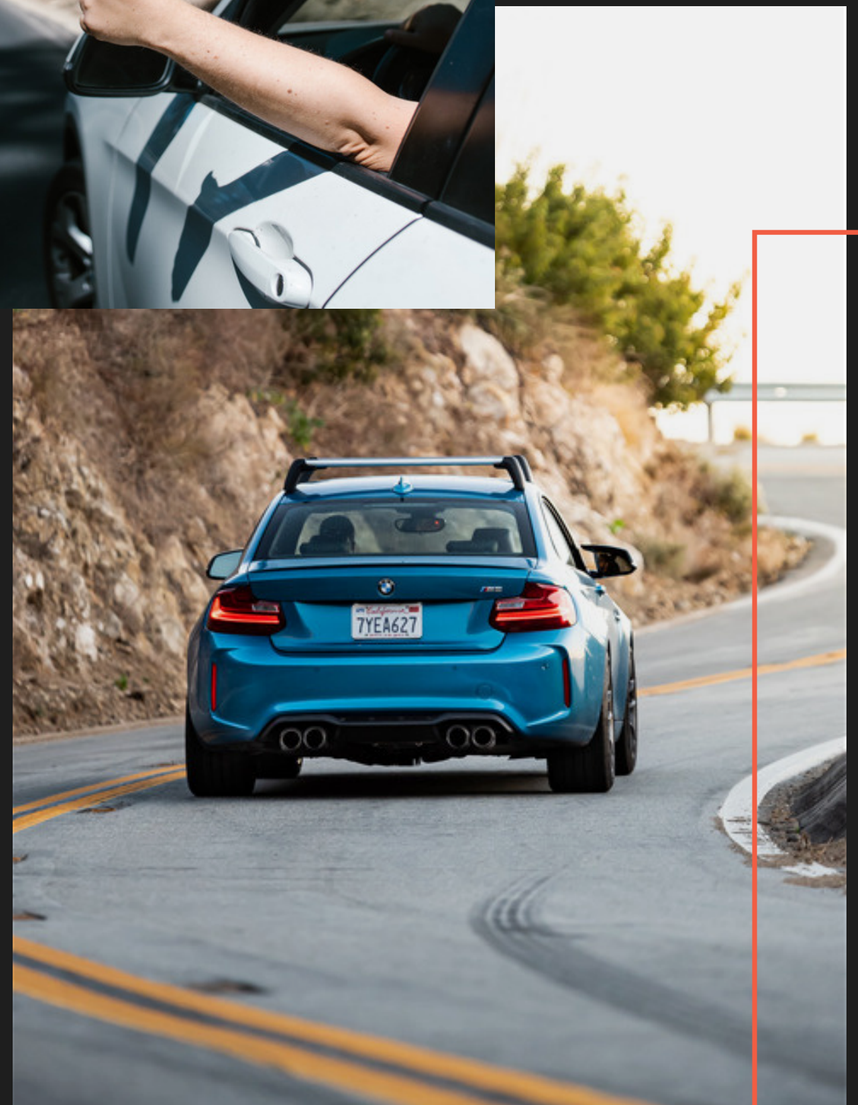
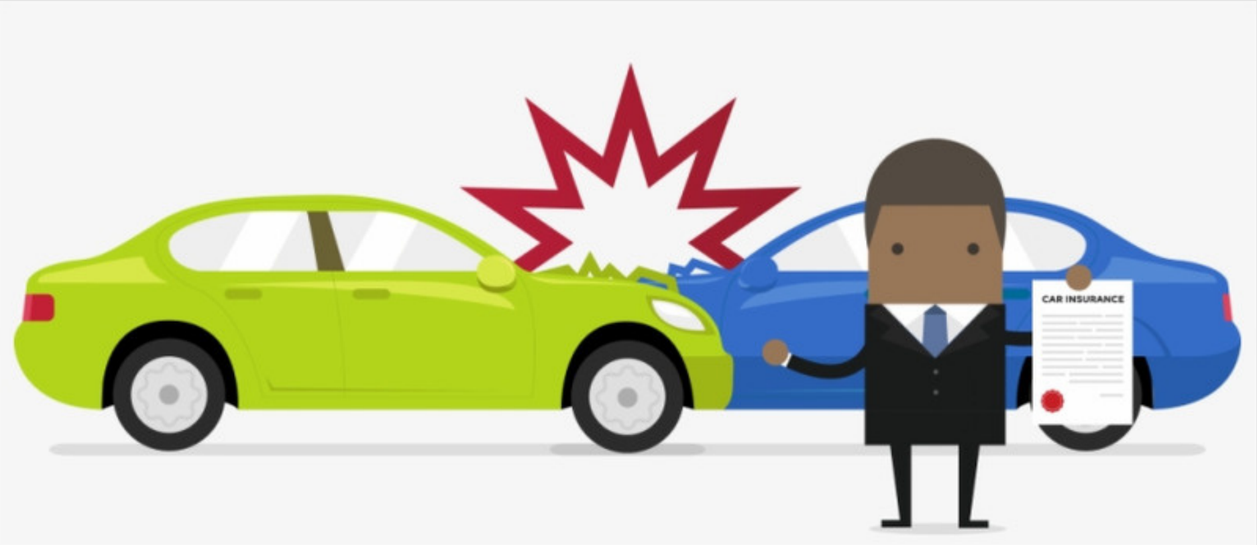
REPORT OUTLINE

INTRODUCTION

- A Smart IID, also known as a Smart Ignition Interlock Device, is a sophisticated device that prevents a vehicle from starting if the driver's alcohol concentration exceeds a limit, making it a valuable tool in preventing drunk driving.





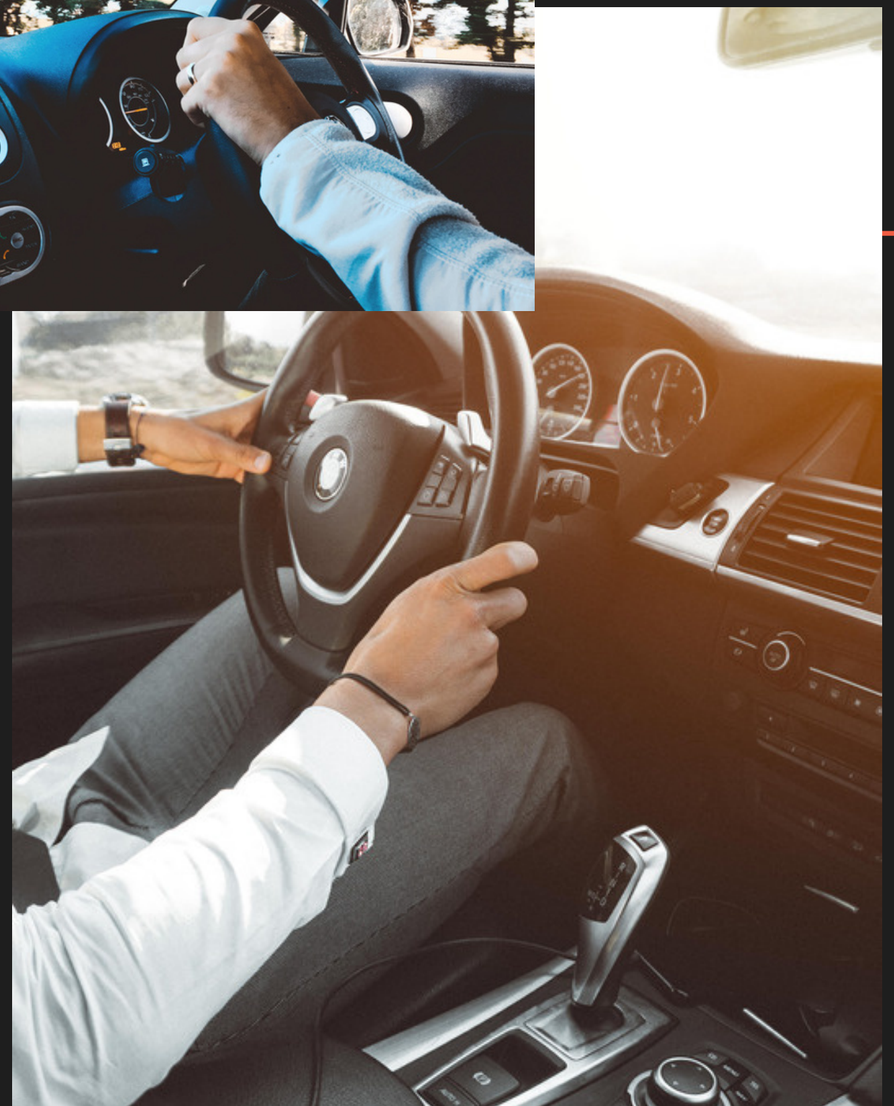
PROBLEM STATEMENT

The problem of drinking and driving involves individuals operating a vehicle while under the influence of alcohol, which can impair their

- Judgement
- Reflexes
- Ability to drive safely.

OBJECTIVES

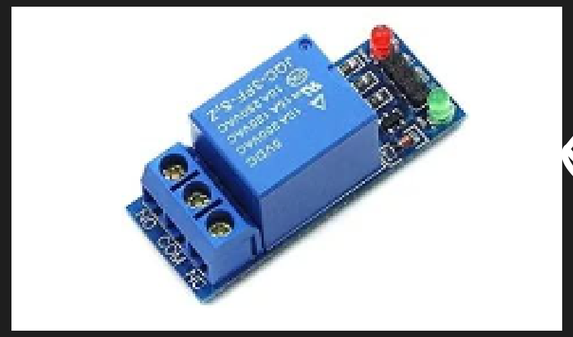
- To build a system which automatically interlocks when alcohol is detected
- To increase road safety
- To reduce deaths due to road accidents.
- Real time monitoring

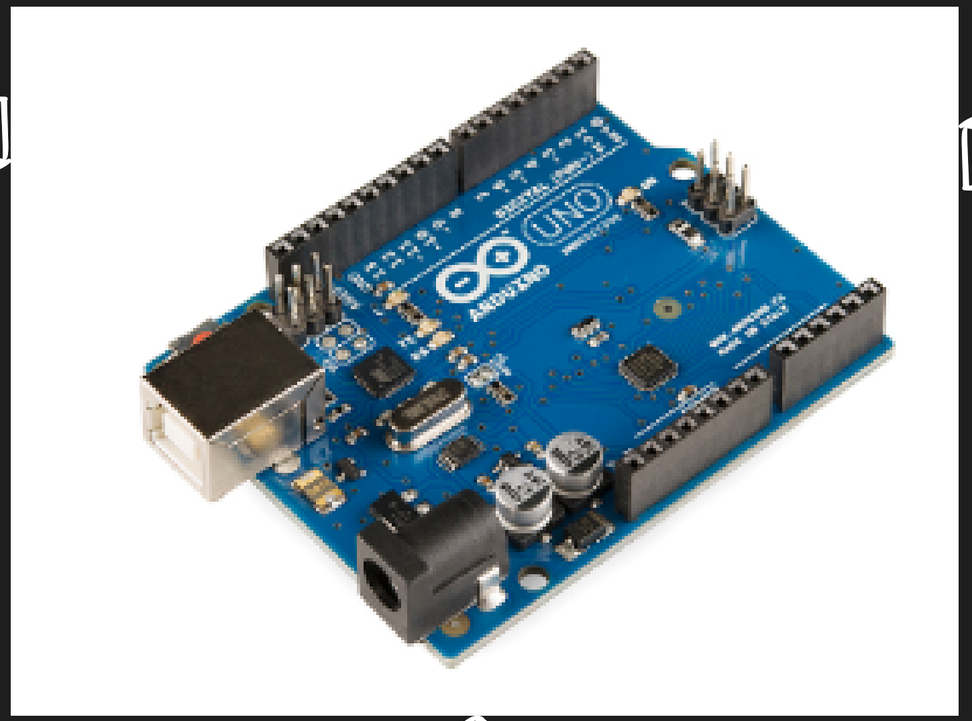


PROPOSED SOLUTION

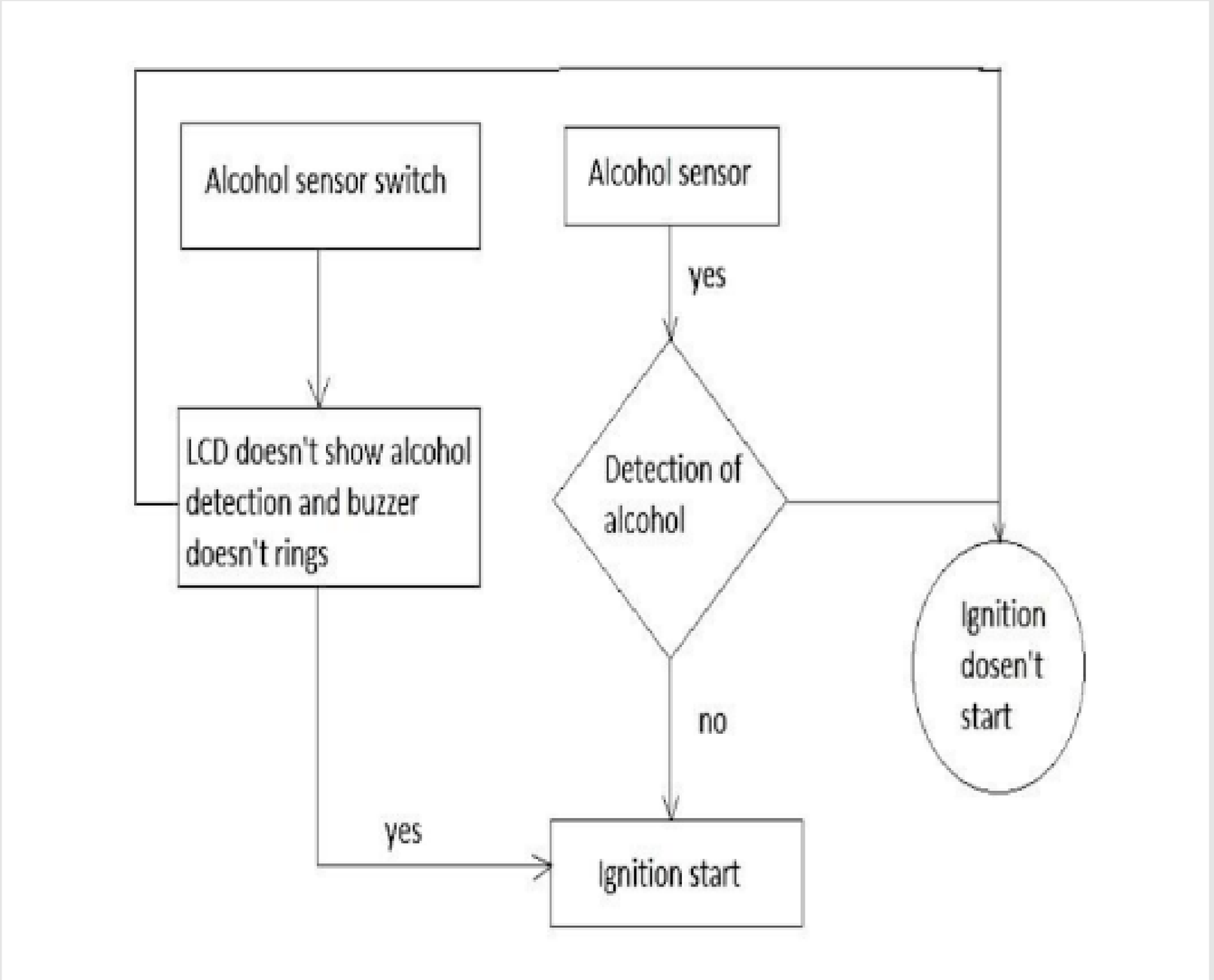
We aim to develop a device which will automatically and efficiently detect the presence of alcohol in the driver's breath and interlock the vehicle's ignition system.
This will help in reducing the deaths caused by road accidents.

BLOCK DIAGRAM OF SOLUTION

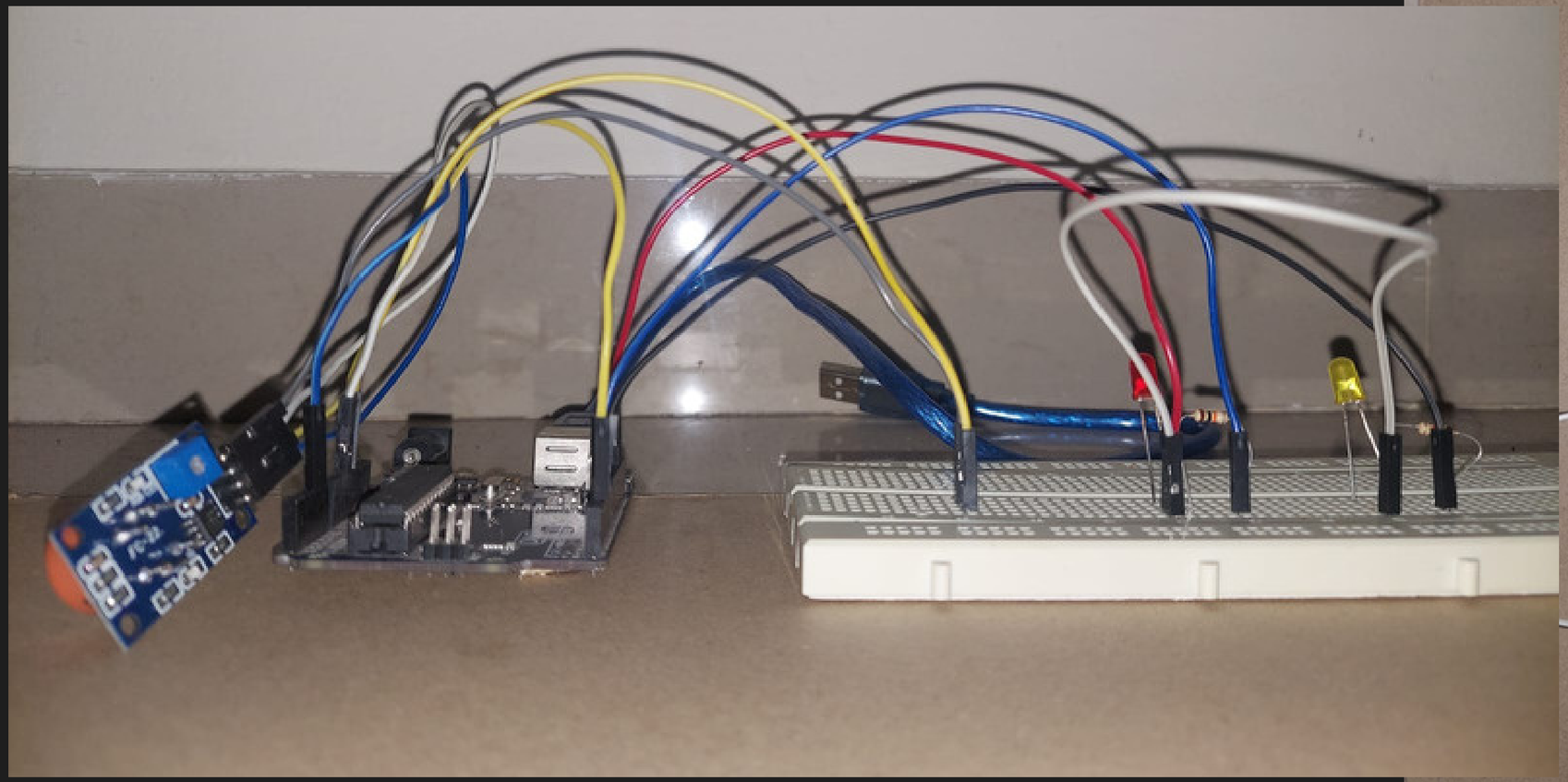


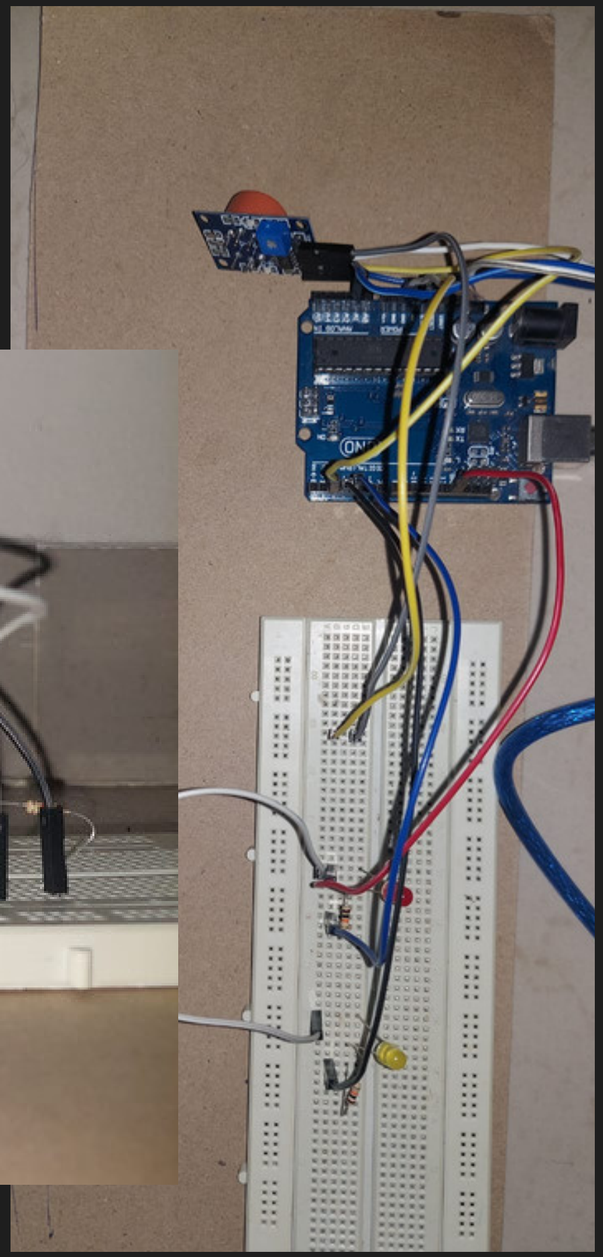


WORKING OF MODEL

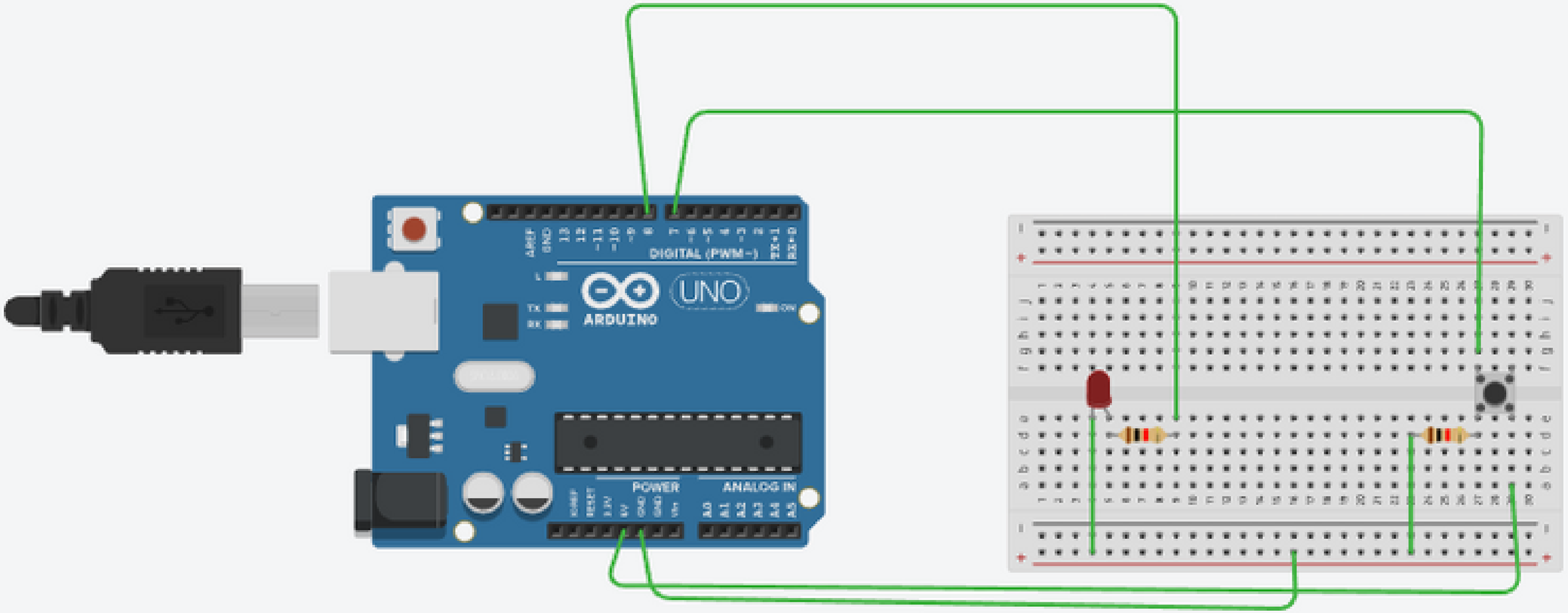


PROTOTYPE:





PROTOTYPE ON TINKERCAD:



HIGH EFFICIENCY

On combining MQ-3 sensor and Drowsiness detection model our system becames highly efficient.

We will improvise the activity to work in a car. By connecting a relay with the car’s ignition the car won’t start if the driver is under influence of alcohol. Removing all the possibilities of drunk driving.

TECHONLOGY USED

"Internet of Things has the potential to change the world"

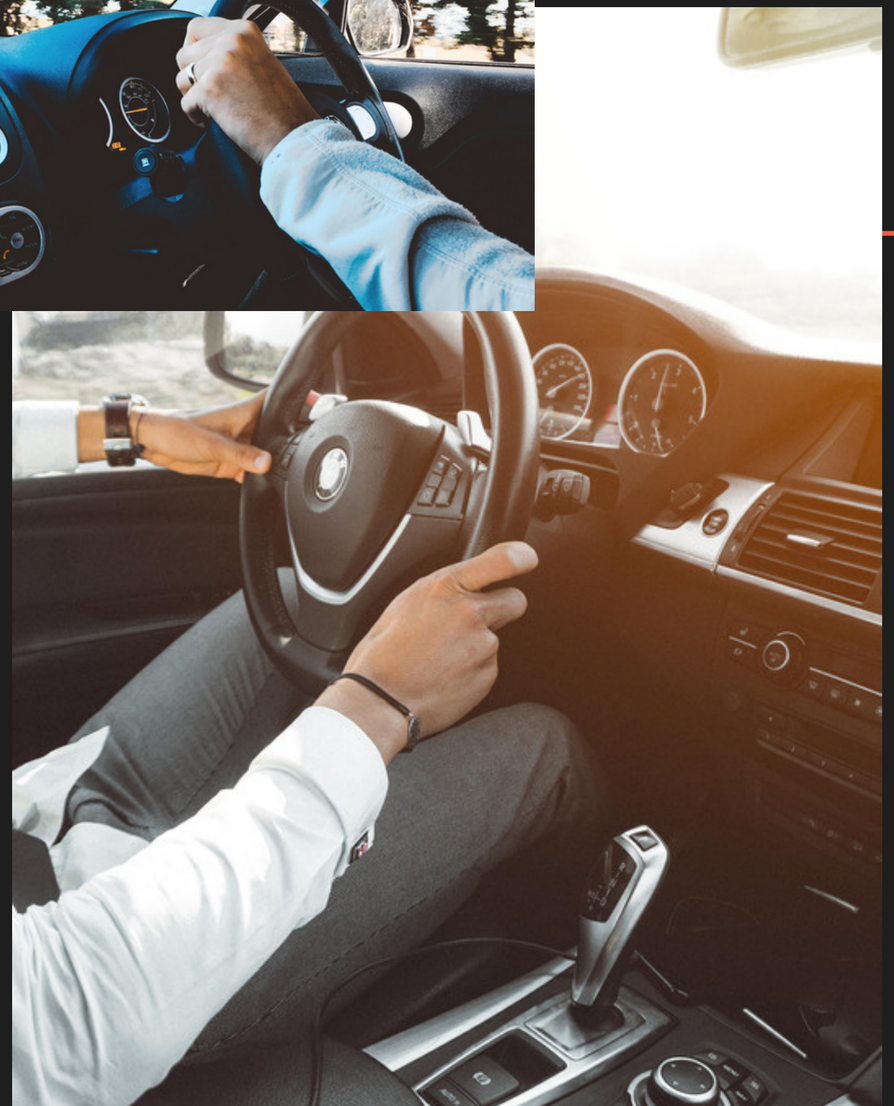
- IoT
- Sensors
- Actuators
- Arduino

FUTURE WORK

1. Wireless communication: The system could be connected to a wireless network or Bluetooth module, enabling it to transmit data to a remote device or a cloud server for further analysis and monitoring.

2. Drowsiness Detection : The system could be trained using machine learning algorithms to recognize patterns and trends in alcohol consumption behavior. This could enable it to detect subtle changes in alcohol levels over time and provide early warnings to prevent accidents.

3. Two Wheeler IID: This same system could be implemented in the helmet of two wheelers which will prevent citizens from drinking and driving it but it will have some show stoppers.



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THANK YOU!

Smart
Ignition Interlock Device.

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