# ANTI SLEEPER GLASS

# AGENDA

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# INTRODUCTION

- Driver drowsiness driving is one of the main reasons for road accidents. To provide security to driver, the vehicles are assisted with automated safety system that alerts driver by using alarm. All vehicles should be equipped with eye blink sensor to evade these types of accidents. The objective of the project is to by using IR sensor the eye blink is measured and controlled.
- On the whole, by sensing the eye blinks we can decide if the eye blinks are more than the driver is very sleepy and it will automatically alert the driver.

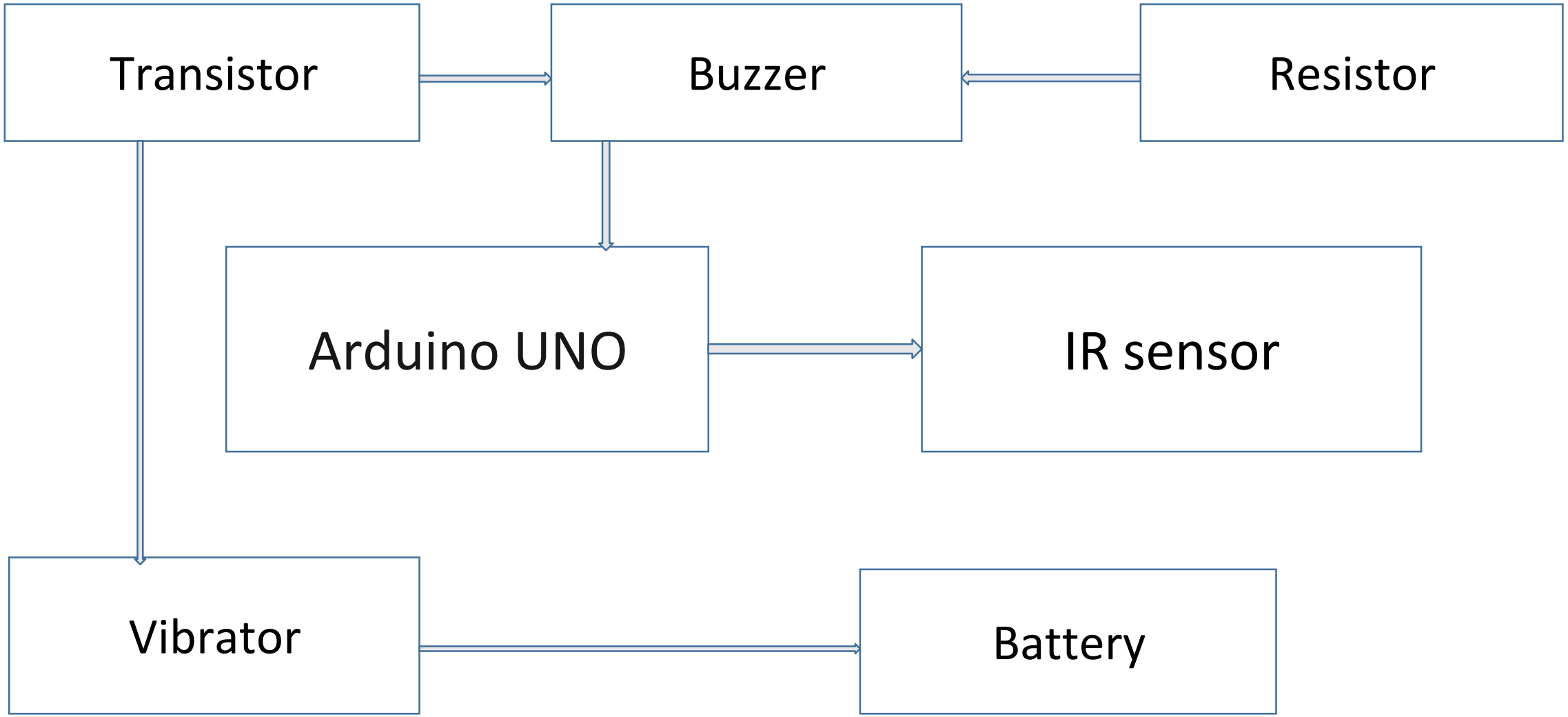
# ABSTRACT

Detection of drowsiness of driver is a vehicle safety technology, which helps to put off accidents which caused by the driver being dozy. This report is based on a example for detection of drowsiness system. The intend of this report is design of an automated system for safety of driver from improper driving. In this report, the eye blink of the driver is detected using eye blink sensor which is IR based. The disparity across the eye will vary as per eye blink. The output is high, if the eye is closed or else output is low. It indicates closing or opening position of an eye. The IR output is given to the circuit to signify the alarm. The controller will send a warning signal. The buzzer, which is placed near the driver, will be activated and alters the driver when he falls asleep during driving.

# NEED FOR PROJECT

The aim of the project is to provide drivers with a device capable of keeping awake the person who is about to fall asleep.

# BLOCK DIAGRAM



# FUNCTIONS OF EACH BLOCK AS SUB HEADINGS

**IR SENSOR:**

This sensor is the heart of this project. IR sensor are widely used in motion detectors.

**RESISTOR:**

Resistors are used to reduce current flow, adjust signal levels, to divide voltages, bias active elements and terminate transmission lines.

**TRANSISTOR:**

Transistor, is a semiconductor device for amplifying, controlling and generating electrical signals. Transistor are the active components of integrated circuits or micro chips.

## BATTERY:

A Battery is a device that stores chemical energy and converts it to electrical energy. The chemical reactions in a battery involve the flow of electrons from one material to another through an external circuit.

## BUZZER:

A Buzzer is a sounding device that can convert audio signals into sound signals. It is usually powered by DC voltage. It is widely used in alarms, computers, printers and other electronic products as sound devices.

**VIBRATOR:**

Vibrators are electrical devices that produce pulses of variable amplitude and frequency.

# PROJECT SIMULATION/HARDWARE TOOLS

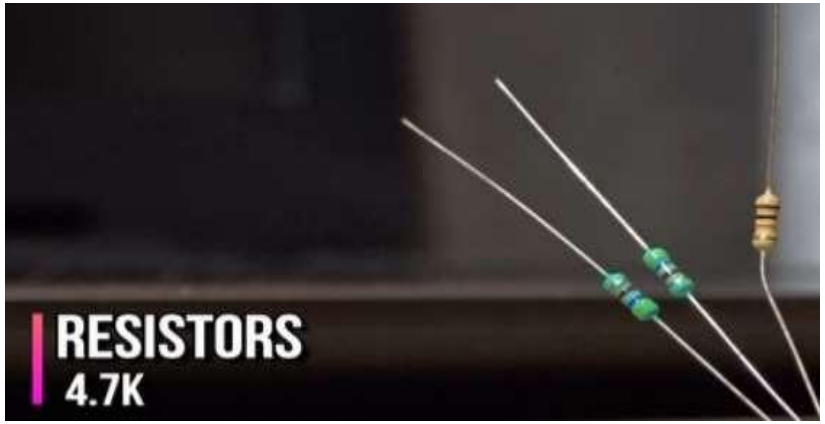
**HARDWARE TOOLS:**

- IR sensor
- Resistor
- Transistor
- Buzzer
- Vibrator
- Glass
- Battery
- Connecting wires

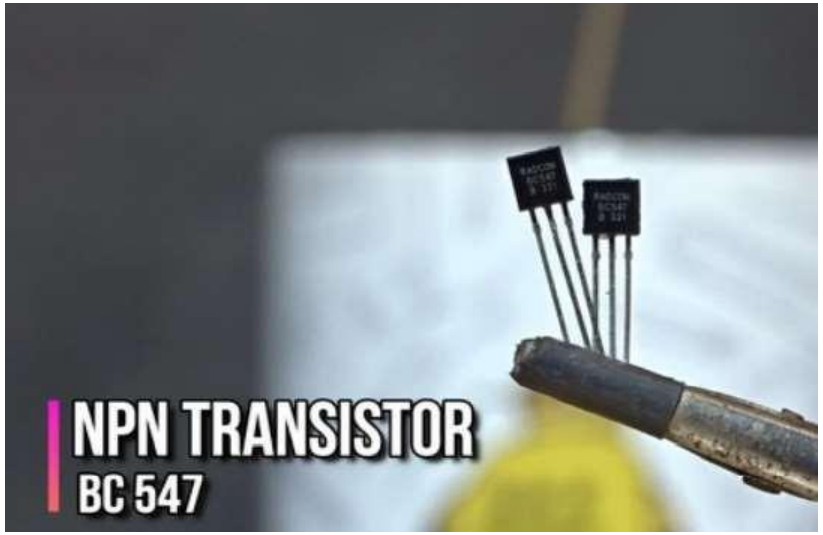
**SOFTWARE TOOLS:**

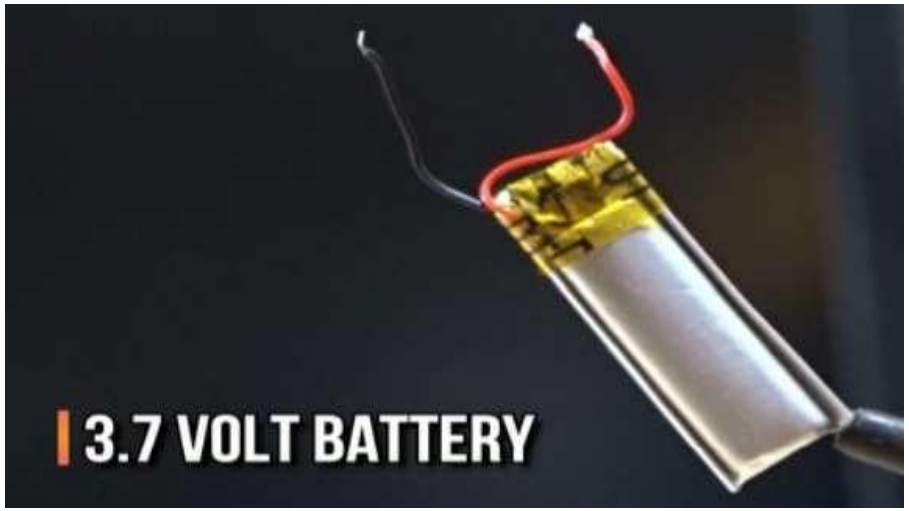
- ARDUINO UNO


VIBRATOR

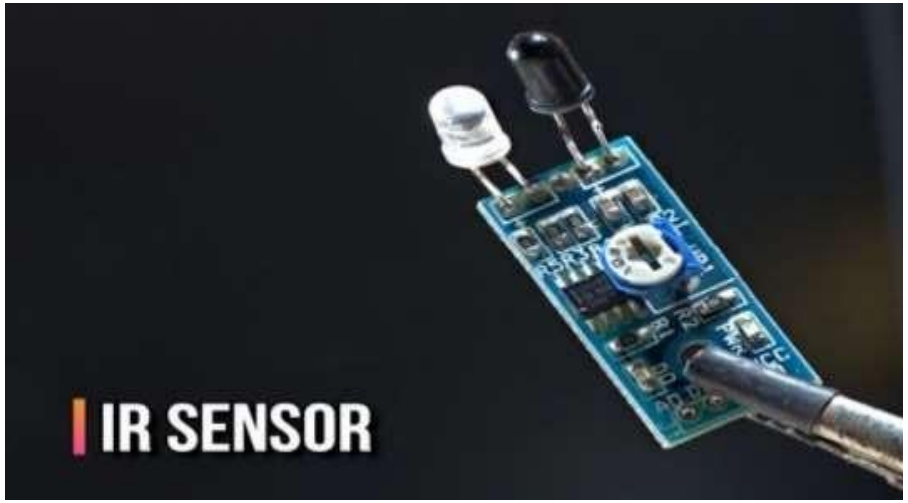

RESISTORS
4.7K


5 VOLT BUZZER


NPN TRANSISTOR
BC 547


3.7 VOLT BATTERY


GLASSES FRAME


IR SENSOR


DIGITAL (PWM~)
UNO
ARDUINO
POWER
ANALOG IN

# APPLICATIONS

- It helps to prevent from dozing off while studying by sounding a beep at a fixed time interval.
- This system can also be used for railway drivers.
- It found drowsy, the alarm system gets activated and the driver is alerted.

# CONCLUSION

The driver drowsiness is analysed and driver’s drowsiness is detected and alert system is also designed. In this paper, the discussion regards the avoidance of accidents due to drowsiness is discussed with eye blink and corresponding system was developed.

# REFERENCES

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