

DRIVER ANTI SLEEP DEVICE

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ABSTRACT

In modern-times, owing to hectic schedules it becomes very difficult to remain active all the time. Imagine a situation where a person is driving home from work, dead tired after facing all the challenges of the day. The hands are on the wheel and foot on the pedal but suddenly started feeling drowsy, the eyes start shutting and the vision blurs and before it knew, then the person fall asleep. . Falling asleep on the wheel can lead to serious consequences, there may be accidents and people may even lose their lives. This situation is much more common and hence, it is very important to counter this problem. So to address this issue, the Project Anti-Sleep Alarm for Drivers is introduced. This system alerts the Person falls asleep at the wheel thereby, avoiding accidents and saving lives. This system is useful especially for people who travel long distances and people who are driving late at night. The circuit is built using Arduino Nano, a switch, a Piezo buzzer, Micro Vibration Motor and an Eye blink sensor. Whenever the driver feels sleepy and asleep the eye blink sensor detects and the buzzer turn ON with a sound of an intermediate beep. When driver comes back to his normal State eye blink sensor senses that and buzzer turns OFF.

Keywords: Safety, Limitation, Accuracy, Components, Alerting, Drowsiness Detection.

I. INTRODUCTION

The drowsiness detection system is capable of detecting drowsiness in quickly. The system which can differentiate normal eye blink and drowsiness can prevent the driver from entering the state of sleepiness while driving. The system works well irrespective of driver wearing spectacles and under low light conditions. Based on the eye movements of the driver, the drowsiness is detected and according o eye blink, the alarm will be generated to alert the driver and to reduce the speed of the vehicle along with the indication of parking light.. By doing this, many accidents will be reduced and provides safety to the driver and vehicle.

A system that is driver safety and car security is presented only in luxurious costly cars. Using eye detection, driver security and safety can be implemented in normal car.

II. METHODOLOGY

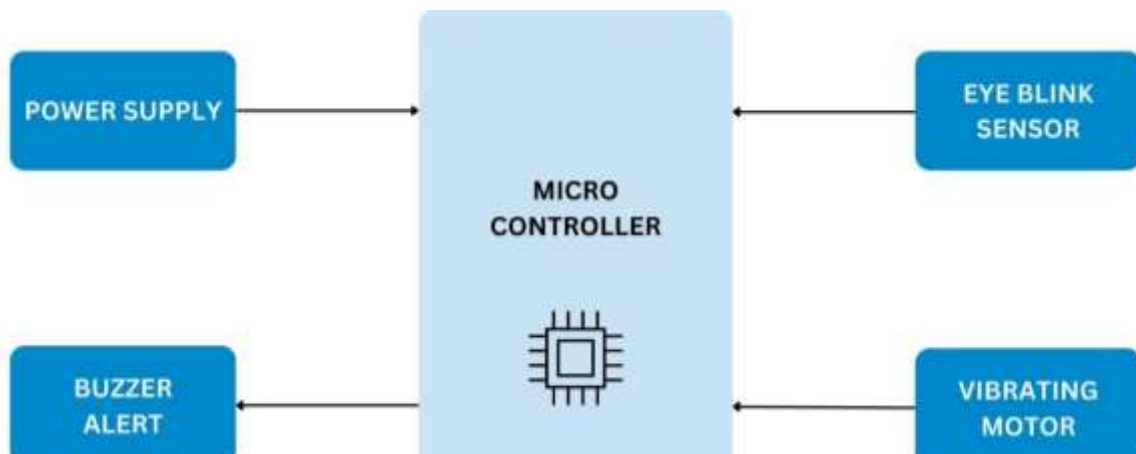


Fig 1: Block diagram of the system

In the system we are using Microcontroller , Buzzer Alert, Power supply, Eye Sensor, Vibrating Motor,

III. RESULT AND DISCUSSION

The project is used to detect the Eye-blink or closing the eyes of a person, if eyes closed for a while. The buzzer automatically turns ON, when the person come back to his normal State. The buzzer goes OFF.

IV. CONCLUSION

This type of sensors are so important that use to identify the motion of an object in very easy method. The design is simple and the cost is very low so everyone can use it. Also we can carry it, so we can use it whenever it is needed and at any time. It is not just a device it is a trusty device which can save someone's life. It is apparent that the overall project success is not derived from one team member's mind but the keen collaboration within our group. Each part is indispensable and every team member made the great dedication on the completion of this design project. By using our Driver Sleep Detection and Alarming System, customers would be warned when his/her physical condition is not good enough for driving and thus prevents dangerous behaviors from happening. It is consistent with the safety and welfare of the public to avoid injuring others, their property, reputation, or employment by false or malicious action; We design our product using qualified components and follow proper safety rules, avoid wrong actions happening to other.

V. REFERENCES

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