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Implementing LED Strips on Road Dividers

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Abstract: ***Every country suffers from a traffic problem. The reason behind this is not only overpopulation but also heavy vehicles on the road too. The Motive of this paper is to give a better idea to control the traffic and reduce the cost for this working. Using sensors, LED strips, and Rechargeable batteries is enough to implement this system. Today only by hearing the sound of the Ambulance the drivers on the road can leave a way for the Ambulance. It is one of the main reasons why the Ambulance Couldn't reach on time. The second thing is that heavy vehicles occupy more space on the road. Each road will have at least two-lane on both sides. By placing these LED strips in the middle of the road, it could be helpful for the other drivers to leave the way for the Ambulance to come. By implementing this system, we can save time, money, and the valuable life of human beings.***
Keywords: Sound detection sensor, LED strips, Rechargeable batteries.

I. INTRODUCTION

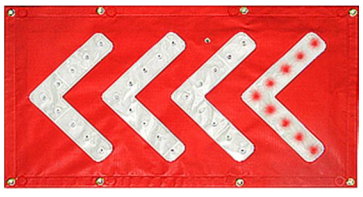
Roads play a vital role in today's world. Many people in the world use the roadways to travel. The biggest problem faced by all the countries is traffic. The reason is because of the heavy vehicles and stupid drivers. Because of these reasons, ambulance drivers are unable to reach the hospital on time. Due to this more, people are losing their life. There are an estimated 6,500 accidents involving ambulances each year. 35% of crashes resulted in injury or fatality to at least one occupant of a vehicle involved. In this paper, we are trying to give an optimal solution for this problem and reduce the cost of implementing it. As a first step, we should make the other drivers on the road know the ambulance arrival. Small vehicles can switch over the lane easily, but it would be hard for heavy vehicles to switch. By implementing this, we can make the drivers on the road alert of the Ambulance coming, and also during the rainy time, it will be helpful for the drivers to see the LED and move. By fixing the LED and sensor on the divider with a range, We can connect both the LED and sensor. We can either join the LED with the road lights or else by using the rechargeable battery, we can charge it.

II. BETTER SOLUTION

By hearing the emergency vehicle sound, the sensors will turn on the LED strips to make drivers on the road alert about the emergency rescue Vehicle's appearance. It will be helpful for the hefty vehicle drivers to change to another path. Small vehicles like cars, autos, and bicycles can change their lane quicker, yet for heavy vehicles, it is hard to switch quicker this will make other drivers unable to move their lane. So different drivers could not able change paths. So to stay away from this, we are executing this plan to go quick for the emergency vehicle. Likewise, we can implement this thought in high-manners too. Placing LED strips with a distance of 10km each will make different drivers on the road and highways change their lanes and drive in advance to free the way before the Ambulance arrived.

III. MY OPINION





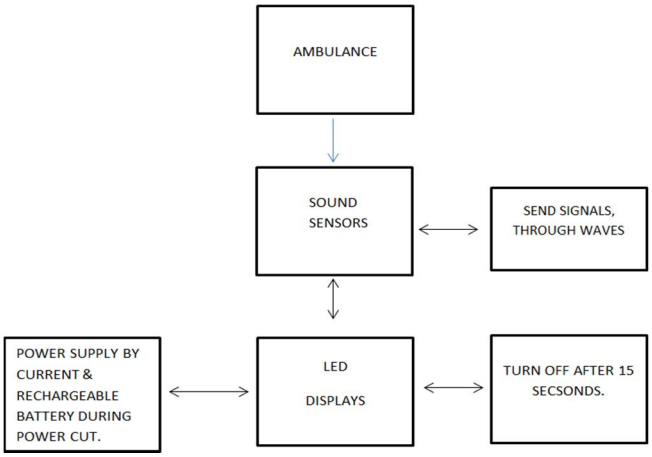




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IV. WORKING METHODLOGY



First, by hearing the sound of the Ambulance, the sensor will turn on automatically, and then it will send the message to the LED strips through waves. Then once the Ambulance crosses the road, the LED strips will turn off automatically. So we can save power, and also it will work for many days while comparing to other devices, LED strips consume only less power. In case of a power cut, a rechargeable battery will make work the LED strips for the whole day. On highways also we can implement the same concept. We cannot stop all the accidents, yet we can rescue lives as much as.

V. ADVANTAGES

A. Cost-Effective

When we talk about the cost, a sensor will cost 500rupees then for the LED strips would be a maximum of 2500rupees. There is also another advantage here is easy to maintain and can
be implemented on highways also. We are not going to use any wires to connect the sensor and LED strips. Through waves themselves, we can join both with a frequency.

B. Quick Service

Ambulance drivers, police, fire engines can cross the roads fast. And taking risks can also be
avoided. Quick service helps the ambulance drivers to reach the spot quickly and return to the nearby hospital fast. The ambulance drivers can also attend the next case without any frustration. The most important thing here is speeding ambulance drivers, keep their life at risk to protect lives.

C. Save Life Of People

People on the roads are not aware of the traffic rules and regulations although the government is trying to do its best. In that case, big cities like Chennai, Mumbai, Hyderabad have introduced a new system in traffic lights. People who try to cross the roads can stop by seeing the LED blinking, and people who wait for the green signal also can move from their position. By doing this life of several people can be saved.

D. Intimation Of Ambulance Arrival

In many numerous nations, by hearing the sound of the rescue vehicle individuals, are leaving
the way for the emergency vehicle. There is also a chance of moving from the lane by seeing the led strips of drivers. Substantial vehicle drivers need some time to change their path nearly may take short of one moment. Simultaneously, rescue vehicle drivers can likewise drive the rescue vehicle without easing back their speed.

E. Reliable

The lifetime of the led strip is four years, and for the sensor, it depends upon the quality. The maintained cost would be less. LED strips consume only less amount of power.

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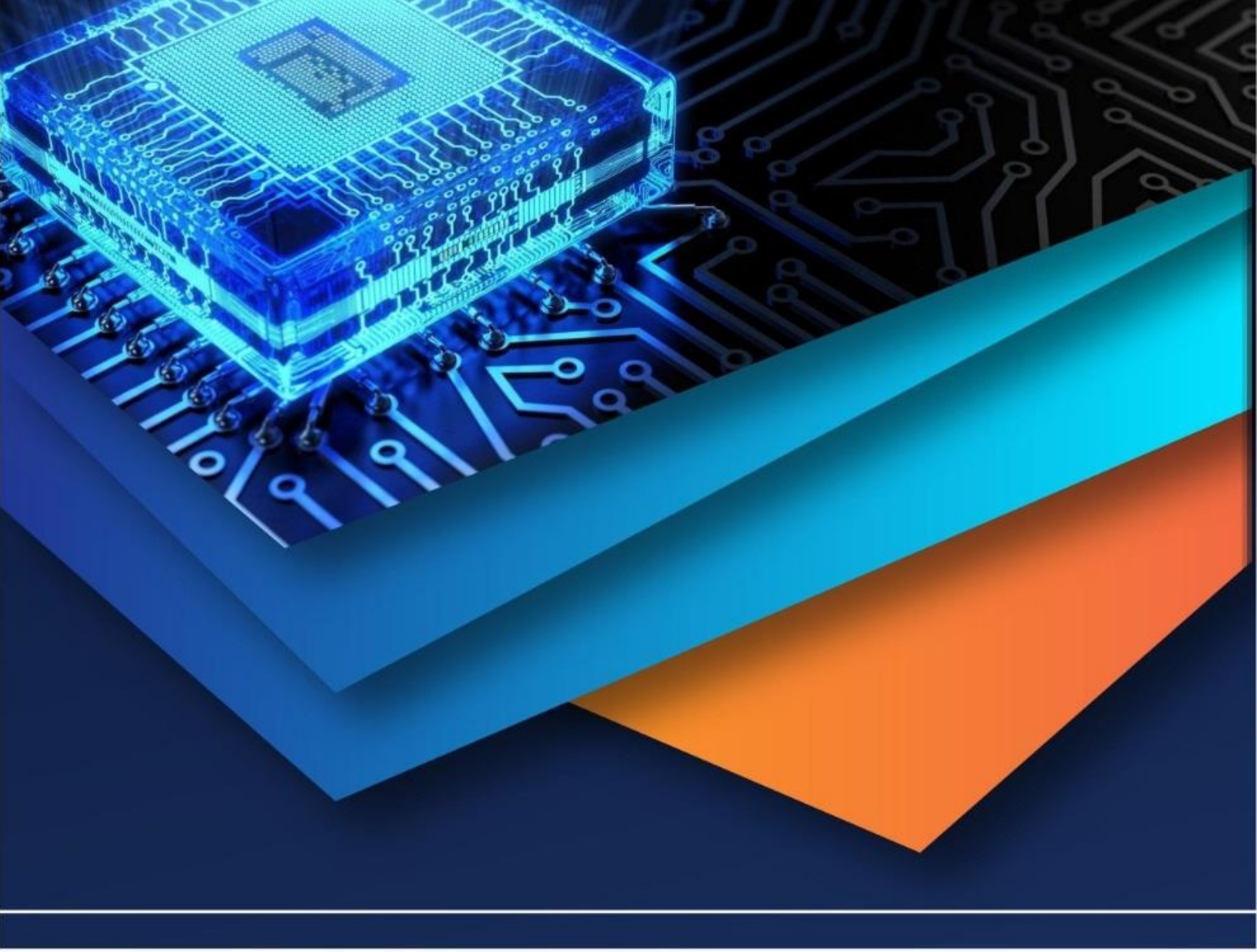
VI. CONCLUSION

Consistently in life is vital. Emergency vehicle drivers are who keep their life in hazard and saves obscure individual life. We feel that specialists are the ones in particular who rescue the life of a patient. But we are not contemplating the rescue vehicle driver. By doing we get many benefits introduced in it. Each individual should know their rights and obligations. It helps the government to give a helpful system to their people.

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