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IOT based automatic speed breaker system

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ABSTRACT

There are many speed breakers on the roads. But at some places there is no need of speed breakers .Many accidents may occur for this we are creating one solution .The solution is when there is no need of the speed breaker on the road, it disappears from the road and the road becomes flat and when there is need then the speed breaker comes on the road by rotating itself from its flat position and it starts its working of slowing speed of the vehicles.

***Keywords*:IOT, Arduino, Server Motor, etc.**

I. INTRODUCTION

There are many speed breakers on the roads. But at some places there is no need of speed breakers .Many accidents may occur for this we are creating one solution .The solution is when there is no need of the speed breaker on the road, it disappears from the road and the road becomes flat and when there is need then the speed breaker comes on the road by rotating itself from its flat positionand it starts its working of slowing speed of the vehicles.

In this concept we are using servo motor gives 12v supply , Arduino board,16*2 LCD display these hardware use in these concept so when needed, it comes on the road and when not needed ,it rotates itself again and gets flat and combines with flat road .There are create a web page for user .In these web page user set the ON or OFF time of motor .In these system real time clock is used .Maximum time in these system is 24hrs and minimum time is 0.By using these concept ,it is possible to set or adjust the time of speed breaker on road .Which is on main road and the entry and exit times for that place are almost fix .When entry time gets started then clock connected to the speed breaker automatically transfer the speed breaker gets automatically reverse to the flat position .

ON or OFF time is changeable for user means you can set ON or OFF time of user requirements. We can set ON or OFF time of speed breaker as per our choice.

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II. IDENTIFICATIONS AND EQUATIONS

The speed breaker is made by hemi-cylindrical speed breaker which is capable of rotating itself. When the given open time of speed breaker is enabling the flat surface of speed breaker rotates and it goes to down the road and when given close time of speed breaker is enable then flat surface rotates and comes up on the road. Means when there is no need of speed breaker it disappears from road and speed breaker becomes flat and when there is need of speed breaker comes on the road.

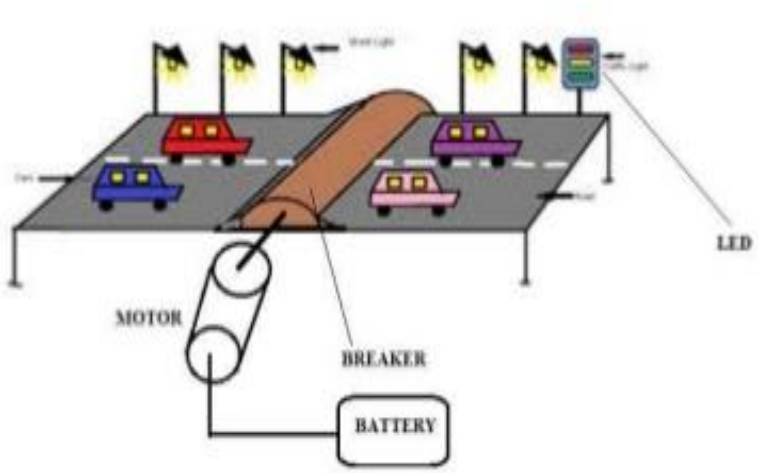

Fig 2: Proposed System

This process followed by slowly to avoid accidents. Two magnetic sensors are connected to speed breaker to adjust the open and close point. The concept of this research work is to have an automatic speed breaker on time demand according to the requirements. Means when there is no need of the speed breaker on the road, it disappears from the road and the road becomes flat and when there is a need then the breaker comes on the road from ground and it starts its working of slowing speed of the vehicle. In implementation of this concept, we use an iron made hemi-cylindrical speed breaker which is capable of rotating itself using control circuity of embedded system. So, when needed, it comes on the road by rotating itself from flat position and when not needed it rotates itself.

So this type of speed breaker is useful before any building for which the time is specified.

- **Arduino *:***

Arduino is an open-source platform used for building electronics projects. Arduino consists of both a physical programmable circuit board (often referred to as a microcontroller) and a piece of software, or IDE (Integrated Development Environment) that runs on your computer, used to write and upload computer code to the physical board.

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The Arduino platform has become quite popular with people just starting out with electronics, and for good reason. Unlike most previous programmable circuit boards, the Arduino does not need a separate piece of hardware (called a programmer) in order to load new code onto the board -- you can simply use a USB cable. Additionally, the Arduino IDE uses a simplified version of C++, making it easier to learn to program. Finally, Arduino provides a standard form factor that breaks out the functions of the micro-controller into a more accessible package.

III.FIGURES

This proposed system gives the idea of automatic speed breaker system .It will work as follows:

- ***Flow Diagram:***

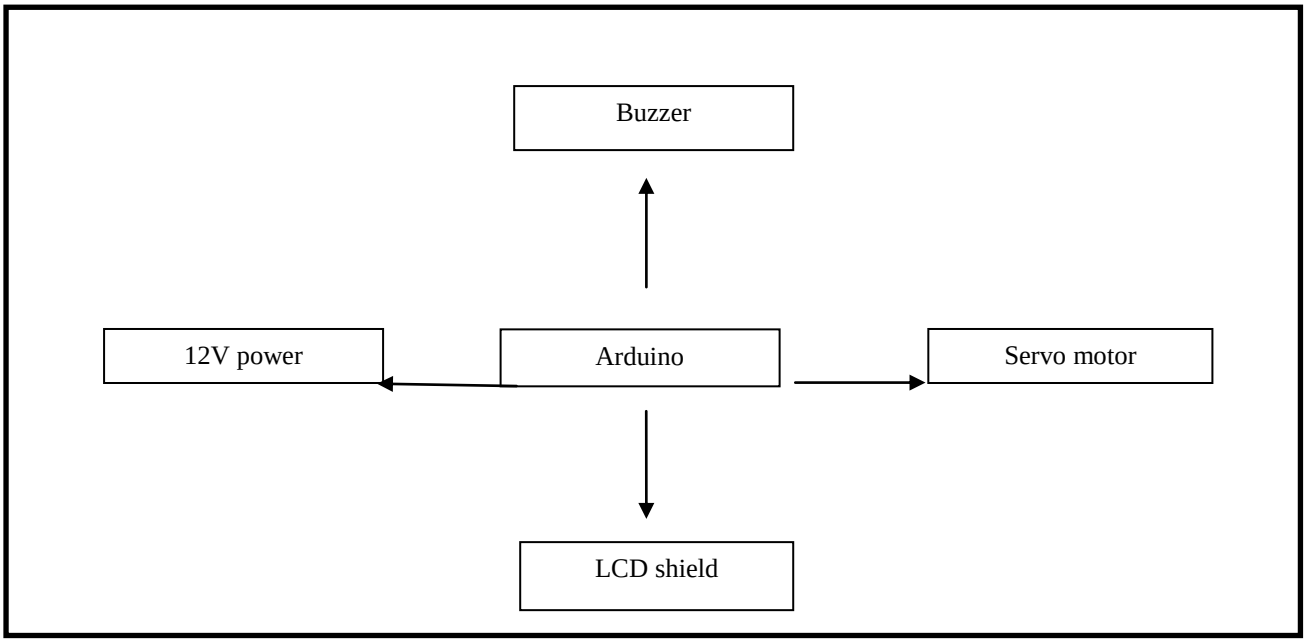

Fig 1: .Block Diagram of Proposed System

IV.CONCLUSION

This Paper presents the idea of Automatic speed breaker on time demand system.

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