IOT-BASED GARBAGE MONITORING SYSTEM

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Abstract: In today's hectic environment, time is a valuable commodity that cannot be controlled by observing every occurrence with our limited time. So, nowadays, automatic systems are favoured over manual methods to make life simpler and smoother in all areas. To ensure its success, the Internet of Things is the most recent internet technology established. The number of internet users has increased so fast that it has become an essential component of our everyday lives. Our main focus in this project is the creation of an Internet of Things-based Garbage Monitoring System.

As the population of world is increasing day by day, the environment should be clean and hygienic for our better life leads. In most of the cities the overflowed garbage bins are creating an obnoxious smell and making an unhygienic environment. And this is leading to the rapid growth of bacteria and viruses which are causing different types of diseases. To overcome these situations efficient garbage collection systems are getting developed based on IoT. Various designs have already been proposed and have advantages as well as disadvantages. It's a review of Garbage Monitoring System based on IoT. This technology is implemented through the arduino uno board, buzzer, ultrasonic Sensor, wifi –module.

Keywords: Internet Of things, arduino uno, buzzer, ultrasonic sensor, wifi

I. INTRODUCTION

Through the world is in a stage of up gradation, there is yet another problem that has to be dealt with. Garbage pictures of garbage bins being overfull and the garbage being spilled out from the bins can be seen all around. This leads to various diseases as large number of insects and mosquitoes breed on it. A big challenge in the urban cities is solid waste management. Hence, smart bin is a system which can eradicate this problem or at least levels. This paper gives us one of the most efficient ways to keep our environment clean and green. Dustbin is a common means and a basic need everywhere. It is observed that often the garbage get collected due to irregular removal of garbage present in the dustbin. In the proposed paper, a new model for the municipal dustbins which intimates the centre of municipality for immediate cleaning of dustbin hasproposed.

II. PROBLEMSTATEMENT

To design and an automated system to overcome problem of manual garbage collection process through the garbage monitoring system.

III. DESIGN

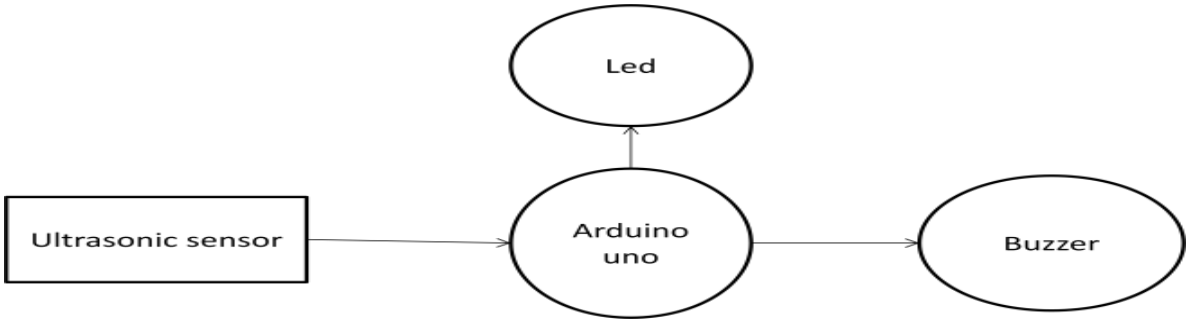

Fig 1: Data Flow Diagram(entire process)

IV. IMPLEMENTATION

Initially through the arduino board ultrasonic sensor connected by connecting echo to pin 8 and trig to pin

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9 and buzzer connected to pin no 4 and led bulb connected to pin 7 to these code is written in arduino ide. Ultrasonic sensor is connected to the bins it measures on the distance of the object/garbage if the distance is more then it displays as empty and if it is less it shows as bin is full.

V. CONCLUSIONS

In today's hectic environment, time is a critical issue that cannot be controlled by observing every phenomena with our limited time. As a result, automatic systems are now chosen over manual methods to simplify and ease life in many aspects. The Internet of Things is the most recent internet technology built to ensure its success. The internet's user base has developed so swiftly that it has become an essential component of our everyday lives. The creation of an Internet of Things-based Garbage Monitoring System is the focus of this project..

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