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Crushing Blow for Green Initiative

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ABSTRACT

This paper project to enhance the recycling habit of the people and to keep the city clean, to minimize the core material consumption. Our main intension is to keep the city clean. Nowadays in India, recycling is one of the areas which rapidly increasing day by day. The amount of waste coming is in a tremendous quantity. A bottle crushing machine is used for crushing plastic bottle for recycling purpose and also for easy storage in recycling bins. This project is based on electromechanical system. We can place this instrument in railway stations, bus stands, and colleges, normally water bottle are thrown on road this make city looks ugly and in rainy season mosquitoes will also grow. It would also help in reducing the volume of waste generated and will thus help in effective waste management. The crushing of used water bottles will also ensure that the bottles are no used beyond the shelf life of its plastic. Therefore this project will prove to be a useful asset in many ways.

Keywords: Crusher, Atmega328, Servo Motor, Coin Assembly.

I INTRODUCTION

Today, Most of the world's plastic waste still goes to landfill. Plastic waste disposal is one of the cumbersome process which is very less efficient. As plastic containers, bottles are easy to carry they are widely used in many applications in domestic as well as industrial purposes. One of the most prominent application where plastic is not properly disposed is drinking water bottles. As plastic bottles are very widely available in different shapes and sizes that meet the variety of situations economically, people are more leaning towards the plastic bottles other than conventional systems. In most of the functions, parties, events etc, water has been served in bottles of different sizes. These used bottles occupy very large disposal space which usually overflows the dustbins provided at these places and are mostly goes to landfill. This can be prevented by providing crushers at these places [1].

The paper is about design of a Plastic Bottle Crusher which would help to crush the used Plastic bottles and would thereby help in waste management and disposal. This project aims to design a portable Plastic Bottle crusher that could be installed anywhere and would aid crush of used bottles [2].

A water bottle crusher can be defined as a device used for crushing plastic bottle for easier storage in recycling bins thereby giving you extra space by flattening the bottles. This project consists of designing and fabrication of an automated water bottle crusher machine along with coin dispenser. In order reduce the waste, to increase recycling habit of people we planned to create an automatic bottle crusher. Bottle crusher is primarily used to

save space and recycling. It helps to reduce the environment pollution. Thus helps us to create better place to leave. A mechanical water bottle crusher is basically one of the most aid able machines. It helps to reduce the pollute environment of this world. Thus helps create a better place to live in. Apart from that, this bottle crusher can recycle bins. It can be placed everywhere, in the park, houses, bus stand, railway stations [3].

II IMPLEMENTATION

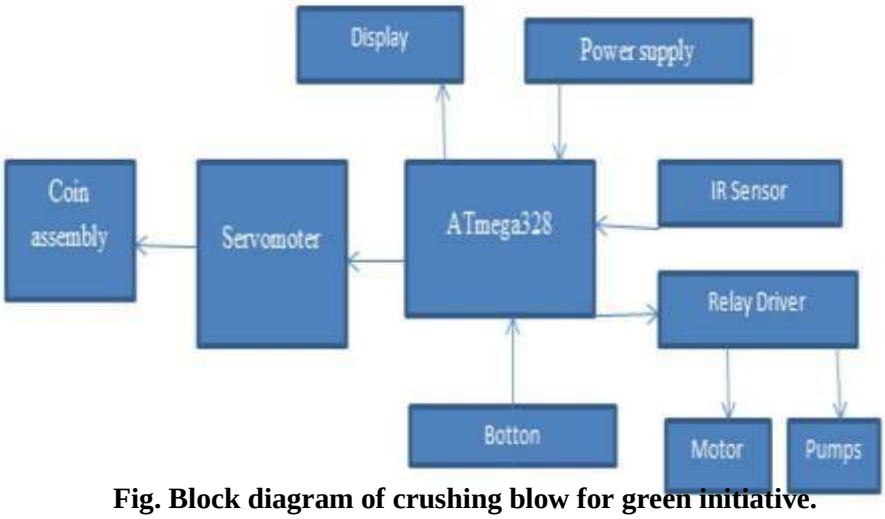

Fig. Block diagram of crushing blow for green initiative.

When we put the plastic bottle in the crushing machine, IR sensor will detect the bottle and it gives the signal to microcontroller. Microcontroller will send command to crushing motor which will start the crushing of bottle. Once the crushing is over LCD display will display two options water and coin. Out of that we have to select either water or coin if we select water then microcontroller will give command to water pump and the water pump will start filling the water in empty bottle. If we select coin then microcontroller will give command to servo motor so that the coin from coin dispenser is thrown out by servomotor.

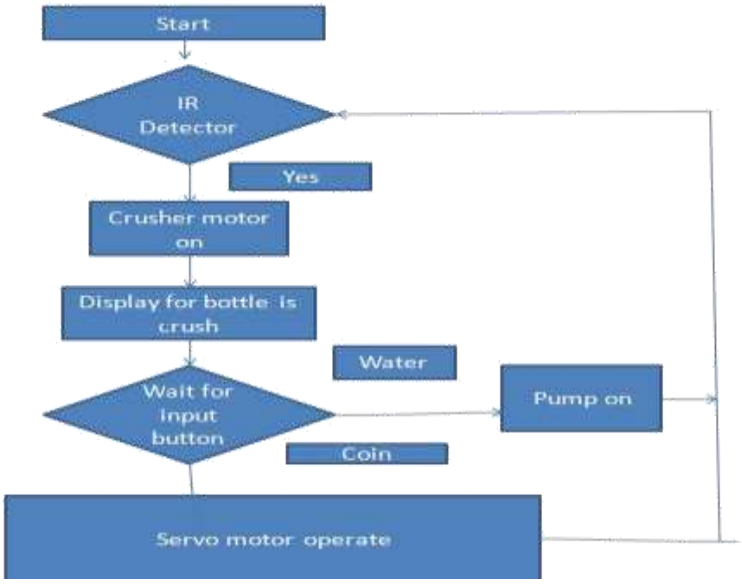

Fig. Flow Chart

V.CONCLUSION

A crusher is future mode of recycle. It is portable as we can place it anywhere. Crushers are primarily use to save space and for recycling. It helps to reduce the pollution. Also it is used for plastic bottle crushing. It can also be used for metal can crushing. Further it can be extended to vehicle crushing.

VI. RESULT

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