Automated Plastic Bottle Vending Machine

Using Arduino

A Capstone Project

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ABSTRACT

Automated Plastic Bottle Vending Machine using Arduino was a system which accepts plastic bottles specifically for "Plastic Bottles". The said machine is equipped with components compatible with Arduino to automate the said project.

The purpose of this study was to design and develop an Automated Plastic Bottle Vending Machine which can be used as a waste management tool for plastic waste (bottles), Since the researchers are developing a prototype they used prototyping methodology wherein they built, test and rework the prototype when needed until an acceptable prototype has been developed. It is also equipped with E3S-DB Transparent Object Sensor and an Arduino coin hopper which generates the amount to be reimbursed by the machine.

Using Arduino Mega, the researchers created an Automated Plastic Bottle Vending Machine that was attached with SG-90 Servo motor which opens and closes the inlet, a proximity sensor which senses the plastic bottle, and a coin hopper which dispenses coins in exchange for the plastic bottle feed into the machine.

This invention relates in general to plastic waste (bottles) in the environment. The littering of plastic wastes in the environment and less willingness to recycle the plastic presents a continuing problem to environment and to all living beings. The prototype was successfully developed and tested, the proponents would like to recommend that the JHCSC School would consider the "Automated Plastic Bottle Vending Machine using Arduino" an essential tool to help lessen the plastic garbage in the premises.