



THROW WITH THE FLOW: DRINKING WATER STATION ENABLED BY SOLID WASTE CONTRIBUTION

MAGHIRANG, MAUREEN ASHLEY B.

ALAS, JAIRA MARI K.

GONZALES, GIAN L.

MENDOZA, MAICA A.

Balayan Senior High School

ABSTRACT

Pollution, and waste collection and segregation are one of the few looming issues experienced in the Philippines, with some of the worst cases commonly found in public schools. Additionally, accessibility to clean drinking water is a basic necessity that students are commonly deprived of due to several factors including financial complications. With this, the researchers aimed to produce a prototype of a drinking water station enabled by solid waste contribution to alleviate the aforementioned issues. The prototype was designed to cater to plastic bottles and paper cups that will be segregated once inserted with drinking water flowing out after. In producing the prototype, the researchers first proceeded to building the housing. The programming was done through utilizing Arduino IDE, which then proceeded to the testing. Assessing the accuracy of the Throw with the Flow involved five (5) trials to which all succeeded, except for trial 5 wherein a paper cup containing a plastic litter was segregated into the paper cup bin, garnering a high level of accuracy of 90%. In testing the functionality, five (5) trials were also done wherein plastic bottles took 8 seconds as their response time, while paper cups took 5 seconds which went accordingly to the programming

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done involving the flow of water. These trials all succeeded which proves that the prototype is effectively working.



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