COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

i- Plastic Bottle Recovery Station

A Thesis
Presented to the Faculty of the
College of Communication and Information Technology
President Ramon Magsaysay State University
Iba Campus, Iba, Zambales

In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Engineering

By:

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COLLEGE OF COMMUNICATION AND INFORMATION TECHNOLOGY

CERTIFICATION

This project design entitled "**i- Plastic Bottle Recovery Station**", prepared and submitted by **Mark Joseph P. Balmeo, Ricco Angelu Kiel Lagus, Jadwie Vallespin and Karl Ivan Denver B. Canonizado** in partial fulfillment of the requirements for the degree Bachelor of Science in Computer Engineering, has been examined and recommended for Oral Examination.

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APPROVAL

Approved by the **PANEL OF EXAMINERS** on Oral Examination on May 2, 2019 with the grade of 2.25 .

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5/27/2019
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Abstract

The major purpose of this study is to reduce waste of plastic bottle in our college and to dispose it properly. In order to achieve this design entitled i- ₱lastic Bottle Recovery Station, microcontrollers, coin hopper and sensors are used. The Project, i- ₱lastic Bottle Recovery Station [hereinafter called "Prototype"] is a system that will help to motivate people in the proper disposal of mainly Polyethylene Terephthalate (PET) plastic bottles through coin reward system. For a certain number of bottles fed into the system a corresponding amount of coins is going to be given out.

i- ₱lastic Bottle Recovery Station is a simple device and easy to use. The users will only follow the instruction (instruction stick on the device), by following this instruction your plastic bottle will turn into a coin dispensing by the device when you reach the price matrix of the project. Not clear plastic bottle is not recognize by this device, i- ₱lastic Bottle Recovery Station will only rejecting the unrecognized material otherwise the device will not dispensed a coin.

The Polyethylene Terephthalate (PET) plastic bottle accepted by the prototype will be stored in a secured bin to be sold to junk shop later on a per kilo basis. The system further promote tidiness and cleanliness of the surrounding by accepting non-PET bottle material and storing it into a separate trash bin.

This project aimed to develop a device that collect plastic bottle and get a coin reward. This project designed for environment to help our community and avoid disastrous happening cause by our own waste and wants to enlighten the

community that we can still use plastic bottle not only after drinking its content but also to recycle and use in more eco way. The project tested effective and yielded the expected outputs as a friendly user. In terms of functionality, the researchers clear say that effectiveness of the implementation will greatly benefit the environmental condition.