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Development of Semi-Automatic Condiment Dispenser

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Introduction

Condiment dispenser is widely used worldwide with different sizes and styles, some common condiment dispensers that is available here in the Philippines is the classic one which is hard to be maintained. The purpose of this study is to develop a prototype which could help the food service industry in preparation, quality service and maintenance. The Semi – Automatic Condiment Dispenser was develop by innovating the common condiment dispenser by adding semi - automatic functions in dispensary instead of using manual procedures.



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Methodology

Here are the task that have to be develop and accomplished:

(1) prepared the prototype design, block diagram and schematic diagram;

(2) prepared list of materials, tools and equipment;

- (3) purchased materials needed;
- (4) fabrication
- (5) test and improved the project; and
- (6) Complete the project.



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Methodology

To ensure the efficiency and functionality of the Semi – Automatic Condiments Dispenser a series of test is prepared. This involves the efficiency and accuracy test of the project. Below are the step by step procedures in testing the machine:

- (1) check all the parts of semi automatic condiment dispenser if all parts are properly installed;
- (2) test if there enough power by pressing the buttons of the dispenser;
 - (3) test the light if it is functioning, if not check for the installation of positive and negative charges;
- (4) after testing the other parts, try to dispense some liquid condiments by pressing the red buttons at the top. It is possible to use the three buttons at the same time;
 - (5) if there are any problems encountered;
- (6) just make necessary adjustments on the machine; and
 - (7) repeat all the procedure from 1 to 5.



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Methodology



Figure 25. The Dispensing Unit







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Evaluation Results

| Criteria | Mean (x) | Descriptive Rating |
|---------------|----------|--------------------|
| Functionality | 4.67 | Highly Acceptable |
| Workability | 4.47 | Very Acceptable |
| Durability | 4.48 | Very Acceptable |
| Aesthetics | 4.14 | Very Acceptable |
| Economy | 4.42 | Very Acceptable |
| Safety | 4.49 | Very Acceptable |
| Salability | 4.49 | Very Acceptable |
| Overall Mean | 4.45 | Very Acceptable |



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Conclusions

- 1. The designed semi automatic condiment dispenser meets the require specifications set for the prototype.
- The development of semi automatic condiment dispenser is achieved and successfully done through experiments, studies and evaluation procedure.
- 3. The overall performance of the prototype is "Very Acceptable" with the rating of 4.46 based on the result of data gathered.
- 4. The project is beneficial for the chosen field which is the food industry, and
- 5. The development of Semi Automatic Condiment Dispenser is efficient and effective.



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Recommendations

- 1. The dispenser should be able to dispense viscous condiments
- 2. Change the design into smaller size to minimize space usage
- 3. For the succeeding research use sensory system instead of the button system.



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