

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN AND FABRICATION OF  
PORTABLE DISH WASHER**

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## **ABSTRACT**

Dish washing is a daily activity across the globe which involves a lot of energy to accomplish manually or mechanically. The objective of this project is to design and fabricate a portable dish washer that is efficient and to use. Due to the difficulties faced in washing the dish. The main problem is it takes a long time to clean the dishes and uses a lot of energy. My idea is to clean the dish and consume less energy. This product powered by a DC motor. This is because it is more efficient and makes better use of their input energy. The eco-friendly portable dish washer with an affordable price will benefit the lower-income family.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

The title of this project is Portable Dish Washer. The project involves the designing and fabricating of the portable dish washer. The process of development is initiated from designing the shape of the portable dish washer by considering the function as well. In order to produce user friendly product that is suitable to the consumer, consideration to the others factor is taken.

In designing process, strength, durability and functional of product will be given high concern to make sure the product is effective. Some modifications are required to give a different type of portable dish washer that exists in the market.

This product could be use by every people that need to clean the dish in their house even a picnic. The design of this portable dish washer is simple. The handle is adjustable and it has button for soap, the soap is come out at sponge. Then, this sponge will rotate at same place with soap. All dirt will disappear completely. The portable dish washer is safe, effective and easy to use. Some renewal has been done to present product to make it user friendly.

### **1.2 Problem Statement**

Dish washing activity is involving considerable human efforts and mostly dish washer available in market are expensive. Dish washing activity requires more efforts to brush the dirty dish and it will make consumer get tired quickly if they need to brush many dishes especially in restaurant, hotel and industry. Other than that, consumer will feel dangerous or uncomfortable while holding dish washer. So it will hurt their palms when they do it rushly. Next, when consumer go to picnic, they need to bring more things to wash dish such as soap and sponge. This will make it difficult for them to bring other necessities.