

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN AND FABRICATION OF AN  
AUTOMATIC SELF-FOLDING  
TABLE**

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## **ABSTRACT**

The automatic self-folding table is design to be a table that are much more efficient than ordinary folding table. As such, the table is much more space efficient as it can be folded automatically. It's also ease the user as the product was design to be able to fold by itself with a touch of a button without any needs for manpower. The objective of this table is to create an affordable alternative solution for people that has small space in their house and also to reduce the requirement for manpower in restaurants industry.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Table is a widely used product across the world. Some common types of tables is dining table, which is used for people to eat and work table where people use to do work or use computer. Every household, restaurant, school and many more owned at least one table. Especially for houses and restaurants, the table is a part of daily life and necessities as people eat using dining table, study and work using table and a lot of more of daily lives activities happen with the help of a table.

However, regular table usage causes a few problems in daily lives. First, tables consume a lot of space in the house. For example, dining tables are only used two or three times a day, but it consumes so much space especially for houses with limited space. There are some manual folding tables out there but manually unfolding it every time you want to use it and folding it when you want to store it a few times a day can be a strenuous task. Other than that, it could require much energy to set up the table. This can be especially referring to restaurant worker and people that have to setup each table for their restaurant every day. Tables is also quite heavy, making it require a lot of energy and work to set up.

This problem can be solved by using a smaller sized table such as a round table for house with a limited space. However, it will restrict the things you can do on the table. For example, not many people can eat together on a small sized dining table. For restaurants, the owner can hire more worker to minimize the work of setting up the table for the restaurant every day. However, it is not efficient as it cost more to hire manpower. Thus, using a smaller sized table in household and hiring more workers in restaurant is not an efficient solution to these problems.

The aim for this project is to create a more realistic and affordable approach to solve the problems. The main idea is to create a table that can be easily set up when needed and can be easily kept when its not needed. The design will be created based on a