



UNIVERSITI TEKNOLOGI MARA
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MEC299

**DESIGN AND FABRICATION OF
MINIMALZIE WALL TABLE WITH STORAGE**

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ABSTRACT

The primary goal for this project is to design and fabrication the minimalize wall table with storage. The problems are there are too many people in the room that make the room narrow, no dining room in the room and the room is small. The reason chose the topic are it can save space, can be used more than 1 person in one time and simplify matters. The objectives are to design and fabricate minimalize wall table with storage. The methodology of doing this project are 3 ideas will be designed, an engineering drawing in Solidwork, material selection, cost estimation, fabrication and testing. The scope for this project are for student in the room and will use the available material in the lab. The contribution is helping student to have dining room in their room. The problem for this project the table space will be cramped as it filled with their learning items such as books, stationery and others. The objective of this project is to design and design the wall table with storage. For the scope of this project is the student and available material in lab.

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CHAPTER 1 INTRODUCTION

1.0 INTRODUCTION

In this final year project (FYP), the objective is to make a design and fabricate minimalize wall table with storage. The minimalize wall table with storage is one project that rarely found in our life especially if we are a student. This project is one of the innishative to provide convenience to others. For this project, the main purpose is to design the minimalize wall table with storage to make sure that the good are not in a state of litter. The first step of doing this project is to find suitable material because did not want this project stronger and did not want this project collapse if placing heavy items. This project will cause space in a room to look spacious. Before making this project, make sure find a suitable place to put it so as not to use too much space.

1.1 BACKGROUND OF STUDY

The wall table with storage is one of the most relevant idea to provide comfort to students. As usual, the students will turn the floor into a place for them to eat and this is very difficult for them. In this project, the first step is to design a minimalize wall table with storage using Solidwork platform as a computational-aided design. The design needs to be sketch in 2D and then extruded to be 3D model. To make the analysis the finite element method be used. Using a software to analyze the stress and deformation of product. It is to make sure the product did not easily break and to know the suitable the stress and deformation of product.

1.2 PROBLEM STATEMENT

Basically, all students in primary school will provided a study table for them to finish their assignment or to make a revision. So, sometime the table have limit for them. The table space will be cramped as it is filled with their learning items such as books, stationery and others. So, there are many problems that the students need to face such as their crowded roommates will make the space increasingly narrow. Other than that, the students not

provided with a dining room in their room causing them to eat on the floor. This is because their study table is completely turned into a study place. Then, the other problem for the student is the room given to them is very small.

1.3 OBJECTIVE OF THIS PROJECT

1. To design minimalize wall table with storage for student in primary school.
2. To fabricate minimalize wall table with storage for the primary school.

1.4 SCOPE OF WORK

- This is for student in their room
- The available material in the lab

1.5 EXPECTED RESULTS

- To make a design of the minimalize wall table of storage using solidwork software and to fulfil the first main objective
- To fabricate the product using software and to get the last project design.