

UNIVERSITI TEKNOLOGI MARA

**FLEXIBLE MECHANISM OF CHAIR
WITH MOVEABLE DESK**

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ABSTRACT

Nowadays chair are being used in many ways with different design and purpose. One of the example is study chair. Unfortunately, there is some problem for left handed user where they find it too difficult to write because the table is being attached to the right side. So they need to turn their body a little bit to the left in order to use the table. The objectives for this project is focus on to designing and fabricating a flexible study chair for universal users. The method to complete this project is by produce few concept of design using morphological chart, select the best design by using pugh chart, design the project using Solidwork. Lastly, fabricate the design by referring to Solidwork. The expected result for this product to make an improvement in order to satisfy the user. As conclusion this project can help left-handed people to get comfortable using flexible study chair.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

A chair is a type of seat that is one of the most basic pieces of furniture. Its primary features are two pieces of a durable material attached at a 90° or slightly greater angle as back and seat, with usually the four corners of the horizontal seat attached in turn to four legs or other parts of the seat's underside attached to three legs or to a shaft around which a four arm turnstile on rollers can turn strong enough to support the weight of a person who sits on the seat. Chairs have existed in Egypt since at least the Early Dynastic Period (c. 3100 BC). They were cloth or leather covered, made of carved wood, and much lower than modern chairs. After centuries, chairs started to evolve to be used in many ways. Unfortunately, some of the chairs are not built perfectly such as study chairs. The new concept of the proposed product is going to use joint mechanism to make it move more flexible.

1.2 Problem Statement

Research found that between 10% to 12% population in this world are left handed and they might struggling with few things that built only for right handed. For example scissor and can opener. Left handed are not used with their right hand and they can't use smoothly compare to their left hand. Another example that can be found in educational purpose is study chair.

Some people find it too difficult to use study chair especially for left handed users. The reason for that is the table can't move freely. It being attached to the right side. Eventhough it can be fold but it is still difficult for them to write. Everyone have their own style when writing so they need a desk which can be more flexible for them to suit themselves.