

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF BODY KIT MATERIAL
FOR STUDENT FORMULA RACING CAR**

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ABSTRACT

This project is presenting body kits components that are designed to complement each other and work together as a complete design. The material used for each component should be considered to make sure it is suitable. The material used in a body kit will depend on the specific design and application. The lack of choosing the material that can cause the car has a low durability. It also causes a high-cost maintenance if the material chosen are not suitable for the body kits. The purpose of this product is to construct a solid reasonable and affordable material and to find the most suitable material for the body kits. Some of the most common materials used in body kits include fiberglass, polyurethane, carbon fiber and aluminum. The expectation for this body kit is the success of selecting the material especially in terms of mechanical resistance, easy manufacturing, and durability. In conclusion, a solid, reasonable, and suitable material is produced at the end of the product.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	1
AUTHOR'S DECLARATION	2
ABSTRACT	3
ACKNOWLEDGEMENT	4
TABLE OF CONTENTS	5
LIST OF TABLES	6
LIST OF FIGURES	7
LIST OF ABBREVIATIONS	8
CHAPTER ONE: INTRODUCTION	8
1.1 Background of Study	8
1.2 Problem Statement	8
1.3 Objectives	9
1.4 Scope of Study	9
1.5 Significance of Study	9
CHAPTER TWO: LITERATURE REVIEW	10
2.1 Benchmarking/Comparison with Available Products	10
2.2 Review of Related Manufacturing Process	13
2.3 Patent and Intellectual Properties	17
2.4 Summary of Literature	19
CHAPTER THREE : METHODOLOGY	23
3.1 Overall Process Flow	23
3.2 Detail Drawing	26
3.3 Engineering Calculation and Analysis	31
3.4 Bill of Materials and Costing	34
3.5 Fabrication Process	37
3.6 Functionality of Prototype	40

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Body kits are components that are designed to complement each other and work together as a complete design. The material used for each component should be considered to make sure it is suitable. The material used in a body kit will depend on the specific design and application. Body kits typically consist of side skirts, spoilers, and diffusers.

Researchers and manufacturers may concentrate on a variety of factors while researching body kit materials, including material characteristics, production processes, cost analysis, performance testing, and consumer preferences. The objective is to comprehend the properties of different materials, assess the applicability for various applications to raise the general and effectiveness of body kits.

1.2 Problem Statement

The lack of material chosen for a racing car is one of the problems that can lead to damage to the car. There are some materials that are commonly used to build a body kit of a car such as fiberglass and carbon fibre. It will also increase the maintenance if the material chosen is not suitable for the body kits.

The bad quality of work is also an important problem. Many of them do not take seriously the manufacturing of body kits. More experienced and skilled people will produce a better and cleaner job by putting it all together. [1]