

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
RICE BUCKET TROLLEY WITH
TRIWHEEL STAIR CLIMBING**

**ADI ASYRAF BIN MOHD ARIFF
(2021212072)**

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ABSTRACT

This project which is Rice Bucket Trolley with 3-wheel Stair Climbing is for facilitate the workers at café UiTM Bukit Besi. This trolley actually originated from an existing typical rice bucket stand. A handle, castor wheel and triwheel stair climbing will be added to make it more advanced. The idea about this project come through when we realize that the workers at the café UiTM Bukit Besi was moving the rice bucket using their barehand without using any transportation. After much studies and research made, the cons from that habit will cause them some injury. For instant, back injury, shoulders injury, muscle or strain injury and more. So, we decided to design a trolley to help or facilitate the workers. As we all know, there are already an existing typical rice bucket stand in the market but this innovative rice bucket trolley will be more advanced and progressive with the triwheel stair climbing attached to it. The main purpose for the 3-wheel stair climbing is because we recognized that the height of floor at the kitchen and where the students take their food is different, so this feature is to facilitate the trolley move through different level of floor smoothly. This trolley still can move to the left and right easily. Unfortunately, this product is not appropriate for rough and grassy surfaces. For the process, we will design, drawing on paper, drawing in Solidworks, select the materials, estimated cost, fabrication and testing the product. In a nutshell, the essence of this Rice Bucket Trolley's innovation is to maintain the good posture and health for users by helping them to stay productive at work every single day. Lastly, the expected result for this project is it will help the workers at café UiTM Bukit Besi.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	1
1.3 Objectives	1
1.4 Scope of Work	2
1.5 Expected Results	2
CHAPTER TWO : LITERATURE REVIEW	3
2.1 Introduction	3
2.2 Product Dissection	3
2.2.1 Handle	3
2.2.2 Body	3
2.2.3 Wheels	3
2.3 Patent Study	4
2.4 Benchmarking For Rice Bucket Trolley With Triwheel Stair Climbing	6
CHAPTER THREE : METHODOLOGY	8
3.1 Flow Chart	8

CHAPTER FOUR : RESULTS AND DISCUSSION	10
4.1 Introduction	10
4.2 Preliminary Result	10
4.2.1 Customer Requirement	10
4.2.2 House of Quality	13
4.2.3 Product Design Specifications	14
4.2.4 Product Decomposition	15
4.2.5 Functional Decomposition	16
4.2.6 Morphological Table	17
4.3 Concept Selection Discussion	22
4.3.1 Pugh Table	22
4.4 Embodiment Design Discussion	23
4.4.1 Product Architecture	23
4.4.2 Configuration Design	24
4.4.3 Parametric Design	25
4.5 Design Of Rice Bucket Trolley with Triwheel Stair Climbing	26
4.5.1 Detail Design	26
4.5.2 Assembly Design	30
4.5.3 Disassembly Design	31
4.6 Fabrication Of The Rice Bucket Trolley With Triwheel Stair climbing	32
4.6.1 List of Materials	32
4.6.2 List of Equipment	34
4.6.3 Fabrication of Part	37
4.6.4 Assembly Process	41
4.6.5 Final Product	44
4.6.6 Bill Of Material (BOM) And Costing	45
4.7 Product Testing	46
4.8 Product Function	47
4.8.1 Triwheel stair climbing	47
4.8.2 Trolley Handle	47
4.8.3 Castor Wheel	47
CHAPTER FIVE : CONCLUSION AND RECOMMENDATIONS	48
5.1 Conclusions	48