

PROTOTYPE DESIGN COLLECTION

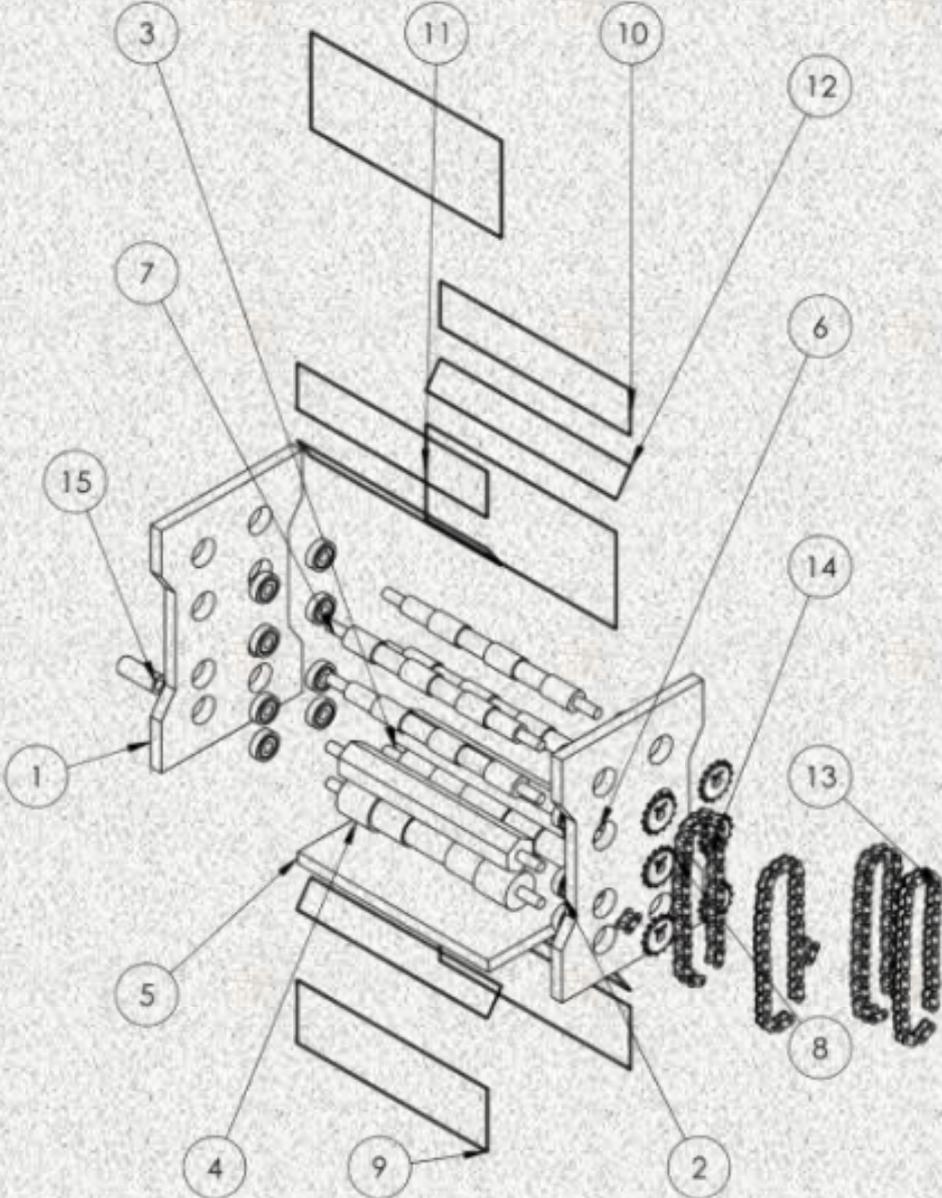
SERIES 4



Universiti Teknologi MARA
Pasir Gudang Campus

Prototype Design Collection

Series 4



Ahmad Najmie Rusli

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FOREWORD

This digital book on Prototype Design Collection Series 4 (PDC Series 4) is published as a reference design for mechanical engineering students. The designs presented experience a few phases of analysis before fabrication of prototype. Each project summarises the project description, prototype, figures, and design parameter. The design products vary in tools or equipment for household, workshop, entrepreneur, etc. Suggested material and detail of prototype dimension are also mentioned in this book.

It is hoped that this book will assist the students to have more ideas on innovation design products in the future.

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CHAPTER 32

Lifted Platform Industrial Trolley

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PROJECT DESCRIPTION

In today's world, industries must produce a large number of products to ensure they reach sellers efficiently. To increase the production rate, workers in these industries must operate and maintain machines smoothly. As we all know, industrial settings involve handling heavy objects, such as large boxes and transfer machines. This makes it challenging for workers to manage these burdens while ensuring their safety. A lifted platform industrial trolley is a versatile material handling device designed to transport and lift heavy loads efficiently in various industrial settings. This equipment typically features a robust steel frame, a hydraulic or electric lifting mechanism, and a platform that can be elevated to different heights. The trolley is equipped with durable wheels or casters for smooth mobility and often includes safety features such as locking mechanisms and guardrails. It is commonly used in warehouses, manufacturing plants, and distribution centers to streamline operations, reduce manual labor, and enhance workplace safety by facilitating the easy movement and positioning of bulky or heavy items. The adaptability and ergonomic design of lifted platform industrial trolleys make them essential tools for improving productivity and operational efficiency in industrial environments..

Keywords: *Trolley, Machine*

PROTOTYPE



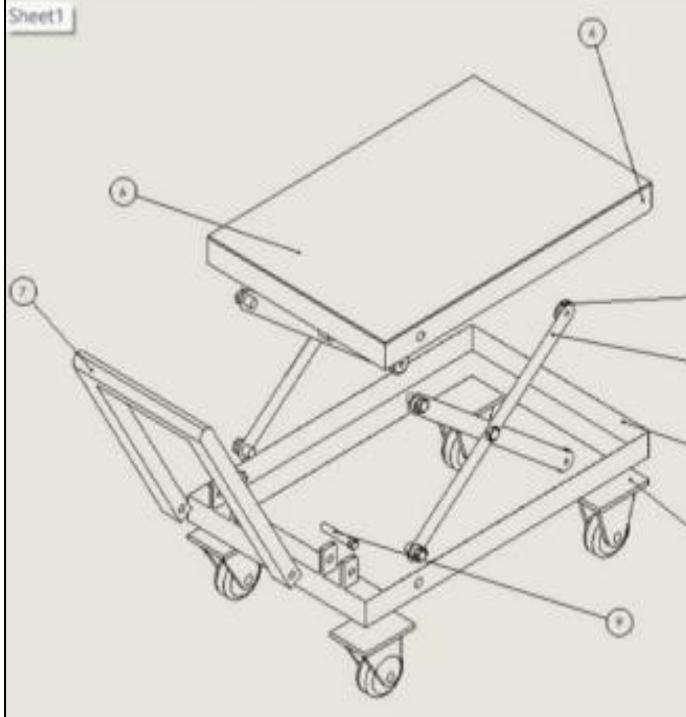
DESIGN PARAMETER

Sheet1



COURSE: MEC209 FINAL YEAR PROJECT PART 1	
NAME: AHMAD SHAFUDDIN BIN SABARUDDIN	
CLASS: JACBEM1104D	
TITLE: LIFTED PLATFORM TROLLEY	
APPROVED:	CHECK:
PART NAME: FINAL DESIGN	
PART NO: 1	
SCALE: 1:1	

Sheet1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Body Frame 1		1
2	Down Inner Barrel 7		2
3	Arm Frame 3		4
4	Upper Inner Barrel 6		2
5	Inner Tyre 4		4
6	Platform		1
7	Handle 10		1
8	Large Nut 8		4
9	Handle Nut 12		2
10	RIGID CASTER		2
11	SWIVEL CASTER		2

COURSE: MEC209 FINAL YEAR PROJECT PART 1	
NAME: AHMAD SHAFUDDIN BIN SABARUDDIN	
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