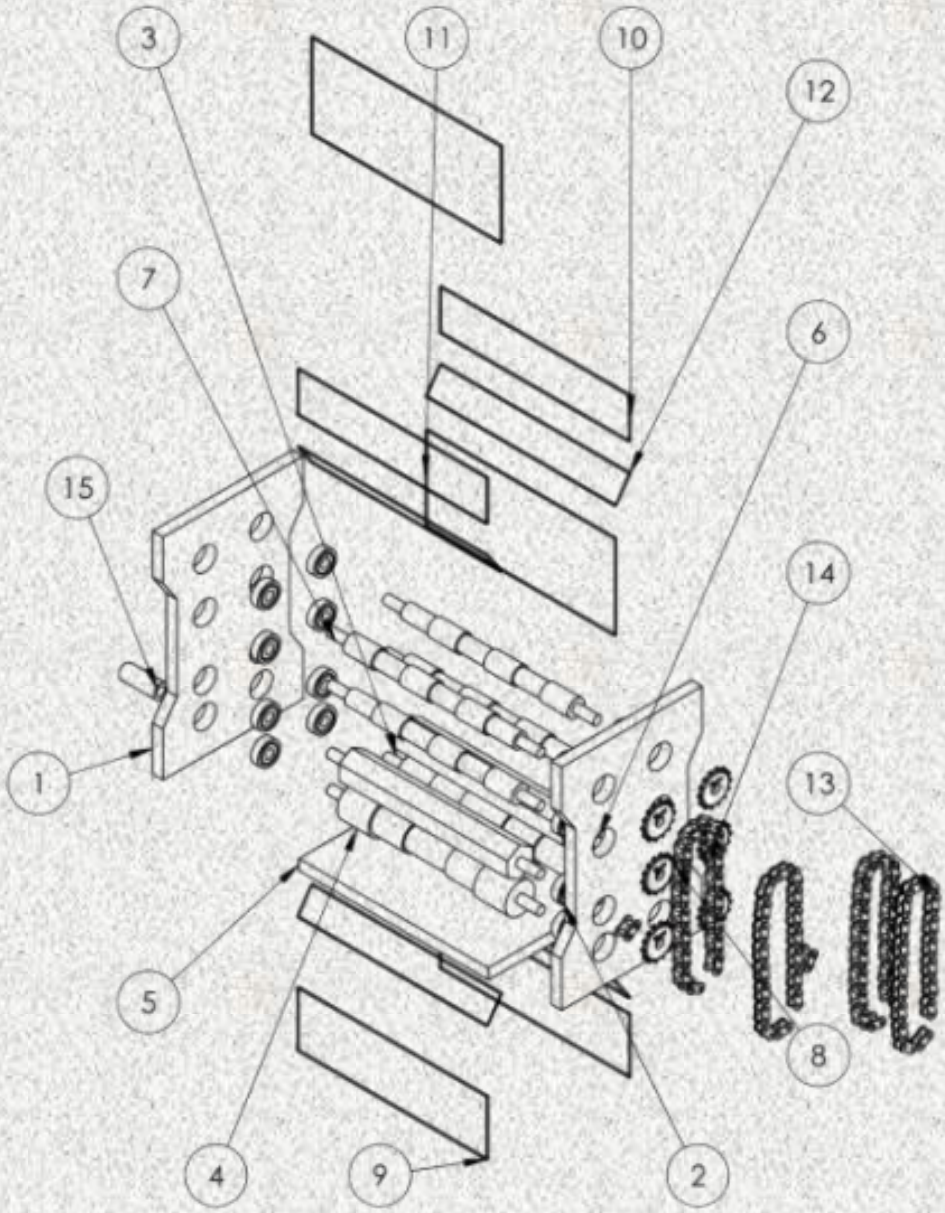
PROTOTYPE DESIGN COLLECTION

SERIES 4

Universiti Teknologi MARA
Pasir Gudang Campus

Prototype Design Collection

Series 4



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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 50

Go-Kart Mechanical Linkage Steering System

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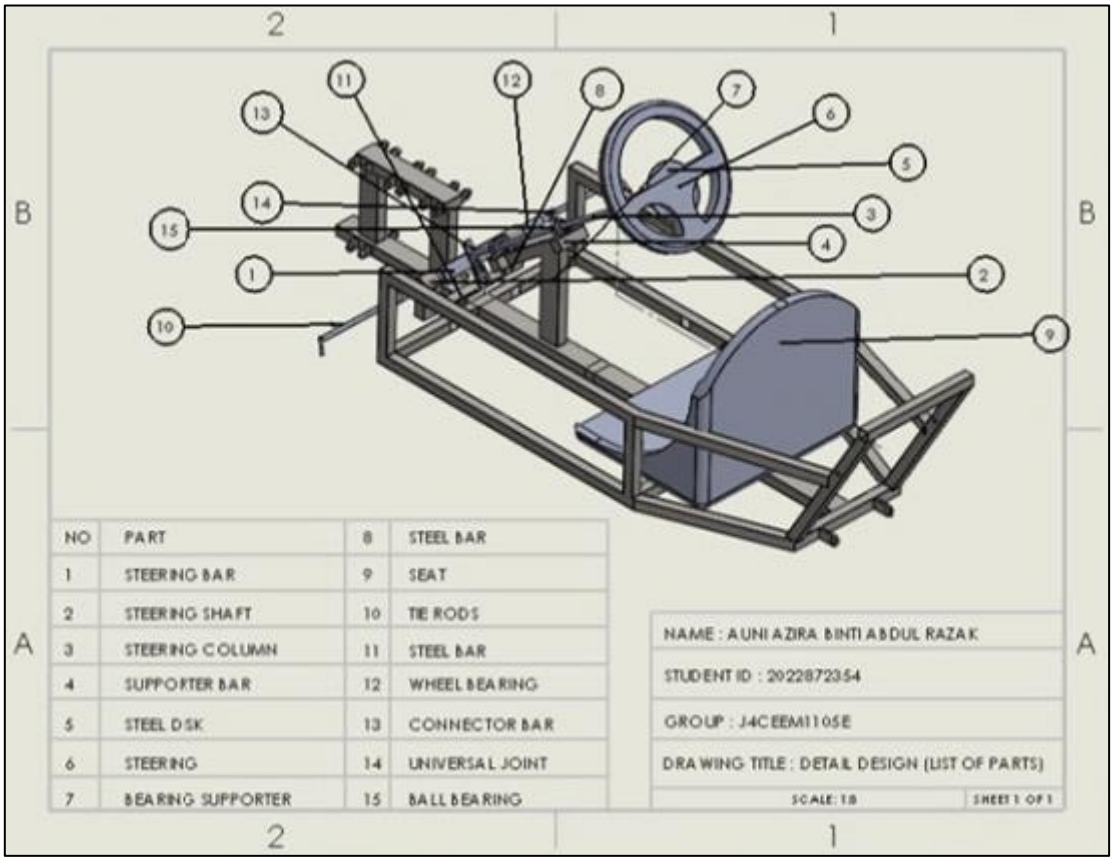
PROJECT DESCRIPTION

The evolution of go-kart steering systems has progressed from traditional mechanical linkage systems to more advanced designs incorporating technologies such as rack and pinion and hydraulic systems for improved performance and control. A go-kart steering system consists of key components, including the steering column, tie rods, steering knuckles, steering wheel, and linkage systems, all working together to ensure smooth and precise wheel movement based on driver input. This study aims to explore the performance characteristics and applications of go-kart steering systems by analyzing factors such as movement, direction, material selection, and pressure affecting mechanical linkage systems. Additionally, it will identify suitable components and evaluate the effectiveness of different steering mechanisms. The findings from this research will enhance the understanding of go-kart steering systems and contribute to further improvements in their design and functionality.

Keywords: *Design and fabrication, Mechanical Linkage Steering*

PROTOTYPE

DESIGN PARAMETER



NO	PART		
1	STEERING BAR	8	STEEL BAR
2	STEERING SHAFT	9	SEAT
3	STEERING COLUMN	10	TIE RODS
4	SUPPORTER BAR	11	STEEL BAR
5	STEEL DSK	12	WHEEL BEARING
6	STEERING	13	CONNECTOR BAR
7	BEARING SUPPORTER	14	UNIVERSAL JOINT
		15	BALL BEARING

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DRAWING TITLE : DETAIL DESIGN (LIST OF PARTS)
SCALE: 1:8 SHEET 1 OF 1