

PROTOTYPE DESIGN COLLECTION

SERIES 2



Prototype Design Collection

Series 2



AHMAD NAJMIE RUSLI

**UNIVERSITI TEKNOLOGI MARA CAWANGAN JOHOR
KAMPUS PASIR GUDANG**

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e-ISBN NO 978-967-0033-18-1

First published, 29th September 2023

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PUBLISHED BY:

Universiti Teknologi MARA Cawangan Johor,

Kampus Pasir Gudang,

Jalan Purnama, Bandar Seri Alam,

81750 Masai,

Johor Darul Ta'zim.

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FOREWORD

This digital book on Prototype Design Collection Series 2 (PDC Series 2) 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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PROJECT DESCRIPTION

A semi-automatic collecting load trolley machine is a mechanism used to ease the lifting of heavy loads and carry the load easily. It can be done by reducing the force needed by using a trolley to carry the load and it can also increase the capacity of the load to be carried. The design of this machine is to improve the working condition mostly for personal use. Thus, the semi-automatic collecting load trolley can be used to move and carry the load in a short distance without using any vehicle such as a forklift which can reduce the cost of transportation. The multimethod of lifting the load such as trolley, fork and other manual lifting had been combined in one mechanism. As a result, this machine will be functioning in good condition and able to help in our daily lives.

Keywords: Trolley, Collecting load, Semi-Automatic

PROTOTYPE



DESIGN PARAMETER

