

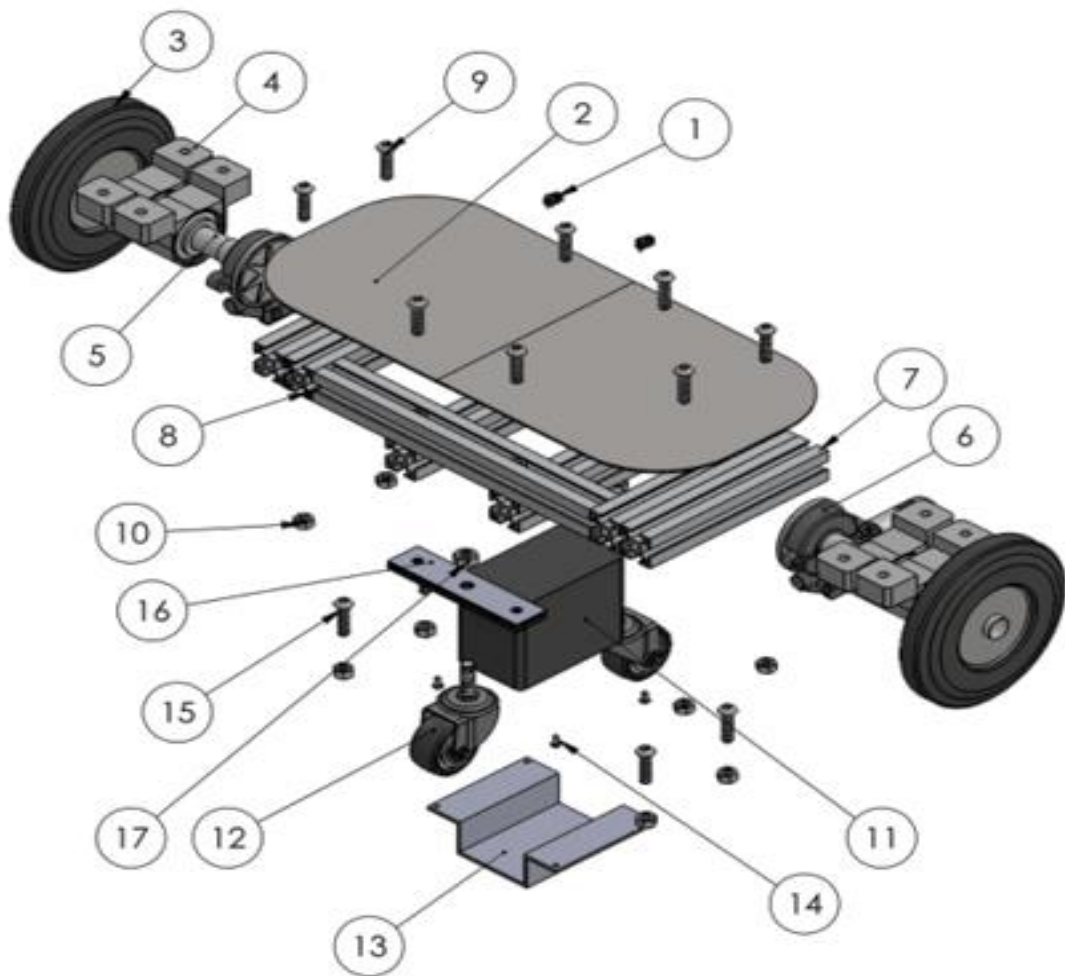
PROTOTYPE DESIGN COLLECTION

SERIES 2



Prototype Design Collection

Series 2



AHMAD NAJMIE RUSLI

UNIVERSITI TEKNOLOGI MARA CAWANGAN JOHOR
KAMPUS PASIR GUDANG

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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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CHAPTER 37

Wrapping Device

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PROJECT DESCRIPTION

Wrapping a product is commonly being done by a manufacturer or dealer of a product before a product being shipped out. Wrapping a product normally being done by a manual operated process. This process normally taking a longer time if the product is largely scale. This is the same problem faced by Jalen Sdn. Bhd. Where the worker manually wrapping of cartons that takes a long time and requires at least two manpower to complete a single task. The objectives of this project are to develop a wrapping device that can reduce the time of wrapping and the use of manpower. This device is made from aluminium profile with a size of 40 x 40 mm, connected using bolt, screw, pillow block and aluminium L corner bracket. The fabrication process involves cutting, drilling, threading, assembling, and testing. As a result, a wrapping device able to reduce the numbers of time taken manually which is 4 minutes to 2 minutes. The number of manpower also being reduced to one.

Keywords: *Wrapping, Manpower, Aluminium profile*

PROTOTYPE



DESIGN PARAMETER

