

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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PROJECT DESCRIPTION

The aim of this project is to develop a sweeping machine that is both eco-friendly and versatile enough to clean small and large areas. Currently, road cleaning is done manually, which puts workers at risk of health problems like asthma and skin irritation. The proposed eco-friendly sweeper machine is cost-effective, efficient, and easy to use, making it ideal for cleaning both large and small spaces. Additionally, it is designed to avoid the use of electricity and diesel engines, which would eliminate the risk of pollution, including noise and air pollution. Ultimately, this machine offers a practical and eco-conscious solution for maintaining clean and safe environments.

Keywords: *Cleaning machine, Design, Fabricate, Suitable Appliances*

PROTOTYPE



DESIGN PARAMETER

