

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 8

Food Manual Grinder

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PROJECT DESCRIPTION

Injuries in the kitchen are inevitable during food preparation. A food grinder is a tool used to grind food into a finer form. Cooking accidents often occur when people accidentally cut themselves with sharp blades. To prevent such incidents, an innovative invention has been designed and manufactured to facilitate the cooking process. The main objectives of this project are to design and fabricate a safe and user-friendly manual food grinder. This machine is specifically designed to be easy to use, even for children, and aims to reduce the number of kitchen injuries. The project commenced by conducting surveys and extensive web research to gather relevant information and data. Subsequently, a scaled-down manual-handled food grinder design was developed and fabricated. The food manual grinder is intended for domestic kitchen use, featuring a simple-to-use hand crank mechanism. The grinder is expected to operate smoothly and efficiently, facilitating the grinding of cooking ingredients.

Keywords: *Grinder*

PROTOTYPE



DESIGN PARAMETER

