

# 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 41

### Design and Fabrication of Coconut Slicer Machine

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#### PROJECT DESCRIPTION

The coconut slicer machine emerges as a pivotal technological innovation, addressing multiple facets of coconut processing, such as expediting operations and enhancing worker safety. The overarching aim of this research endeavor is to undertake the comprehensive design, analysis, and fabrication of an economically viable and functionally efficient Coconut Slicer Machine. A pressing challenge frequently encountered by users is the physical strain and potential ergonomic hazards associated with manually slicing coconuts, leading to worker discomfort and safety concerns. Furthermore, extant machines are often characterized by unwieldy dimensions, rendering them cumbersome for transport and operation across diverse locales. In response, this project endeavors to develop a cost-effective, user-friendly Coconut Slicer Machine that mitigates these predicaments. The resultant machine is intuitive in operation and caters to the imperative need for simplifying the coconut slicing process, thereby benefiting vendors and end-users alike, while concurrently upholding safety standards.

**Keywords:** *Coconut, Slicing*

#### PROTOTYPE



**DESIGN PARAMETER**

