

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 83

Design and Fabrication of Automatic Foodstuff Cutter

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PROJECT DESCRIPTION

Food cutters designed specifically for potatoes are devices that slice potatoes from fresh potatoes. It is now a competitive alternative to the standard cutting method in the modern world. This method involves fewer processing steps and is more dependable in terms of processing time, cleanliness, and safety. This project presents a mobile model of the process of creating, producing, and analyzing food-cutting instruments, particularly potatoes. The target market and potential clients include occupied urban areas, restaurant employees, and Small and Medium Businesses (SMEs). This initiative aims to create machines that are less expensive and easier to automate than those already in use in the industry. The utility of fabrication and the availability of materials are taken into consideration when building machine prototypes. The prototype's final testing and performance, including the number of potatoes that can be chopped and the prototype's effectiveness, are measured. To compete with other products on the market, the design is thought to be able to chop a high number of potatoes while serving as a piece of user-friendly kitchen equipment.

Keywords: *Food cutter, Potatoes, SME*

PROTOTYPE



DESIGN PARAMETER

COURSE NAME : MEC300 : FINAL YEAR PROJECT 2	
NAME: MUHAMMAD ARQ AMAN BIN AMAT NO: REZAM ID STUDENT: 2020820576	
CLASS: J4EM1105A	
TITLE: DESIGN AND FABRICATION OF AUTOMATIC FOODSTUFF CUTTER	
Approved:	Checked:
PART NAME: FINAL DESIGN 3 views	
<input checked="" type="checkbox"/>	
SCALE: 1:1	SHEET 1