

# 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 18

### An Automatic Rempeyek Machine

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#### PROJECT DESCRIPTION

*Rempeyek* is one of the most popular traditional snacks in Malaysia. However, the process of making *Rempeyek* needs to be done individually and manually step by step. It requires a lot of energy, time, and cost. In addition to that, an automatic *Rempeyek* machine is being made to speed up the process so there will be a lot of *Rempeyek* produced with the same quality, taste, and texture at a certain time. This project requires design skills, dynamic theories, selection of the right materials that can be used, a lot of research, and study of other similar machines to understand properly the mechanism used. At the end of the project, the automatic *Rempeyek* machine needs to function properly. The moving mechanism of the molding plate should move properly, and the frying compartment must supply the right amount of heat needed for the oil to boil. In conclusion, this automatic *Rempeyek* machine will be a greater help for those who need it such as the small industries or seller who sell *Rempeyek* to be able to use a much easier method in making *Rempeyek* without spending too much money as the cost of the machine is still at affordable level.

**Keywords:** *Rempeyek, SME, Innovation*

#### PROTOTYPE



**DESIGN PARAMETER**

