

# 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 137

### Design and Fabrication of Flatbread Dough Maker

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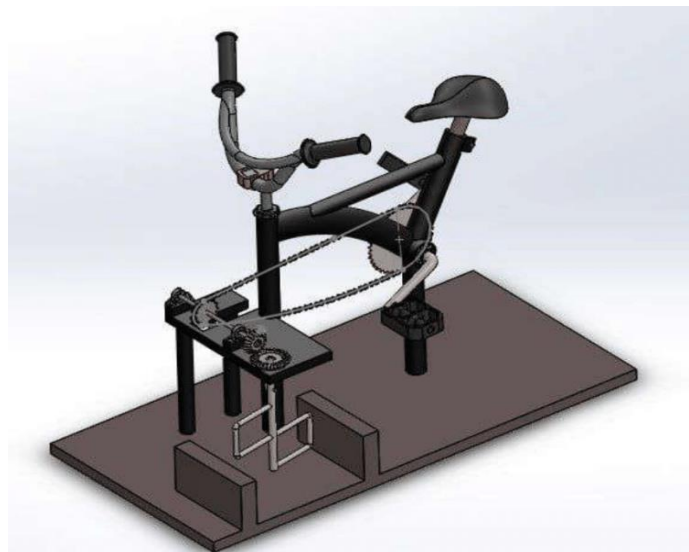
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#### PROJECT DESCRIPTION

Flatbreads were amongst the earliest processed foods, made throughout most of the world, where the grains are mashed into a paste or flour and then baked into a flatbread. Flatbreads traditionally ranging from one millimetre thick to a few centimetres thick so that they can be easily consumed. To date, there are still people using hand to make the flatbread dough for their business. The work of making flatbread dough are often time consuming and arduous, despite the simple process to make the dough. The available dough machine in the market are often small and thus not suitable for a large-scale business purpose. The dough maker usually can fit up to 1-2 kilogram of flour, and thus the process must be repeated few times before the desired output of dough is produced. Therefore, it is aims of this study design and fabricate a flatbread dough machine that can fit up to 5 kilograms of flour, aids in reducing the time consuming to make the flatbread dough and less taxing. The proposed machine will make use the concept and working principle of bicycle, where user will have to pedal the blade equipped in the front part by means of chain. Pedalling the cycle will make the blade rotating, thus kneading the flour until the desired dough is produced. The proposed machine is affordable, friendly user and can fit up to 5 kilograms per cycle and less taxing as the working principle is based on cycling mechanism.

**Keywords:** *Flatbread dough machine, Knead, Dough*

#### PROTOTYPE



**DESIGN PARAMETER**

