

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 138

Loose Fruit Collector and Instant Packaging Machine for Palm Oil Industry

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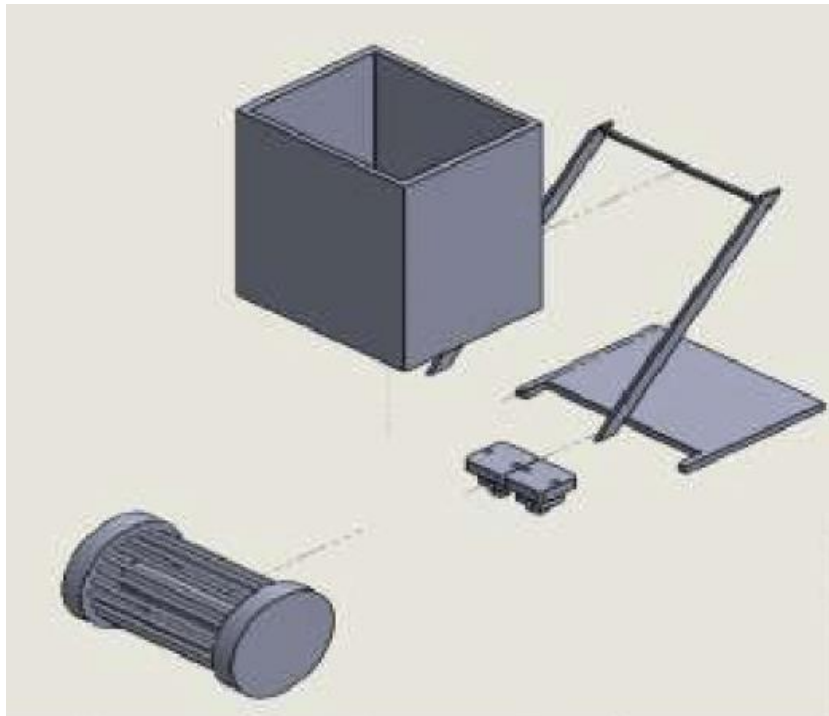
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PROJECT DESCRIPTION

This project aims to help Felda workers who have a hard time rearranging and packaging palm seeds when sending them to factories to make other products. Besides that, the palm seeds are small in size and are numerous to be picked up in a short period of time. The main objective for this project is to design and analyze the Loose fruit collector and its instant packaging procedure for it and also to fabricate a physical prototype of this project. Methods that are used in this project are rolling a collector roller along the earth's floor and the roller will move along collecting the palm seeds in its way. Then, the sack can be tied and sent to the factories or sellers. In conclusion, this project is medium in cost and is environmentally safe. It does not use any source of power or electricity. It works fully through human effort. The materials used are also easy to find.

Keywords: Loose fruit collector, Instant packaging machine, Palm oil industry

PROTOTYPE



DESIGN PARAMETER

