

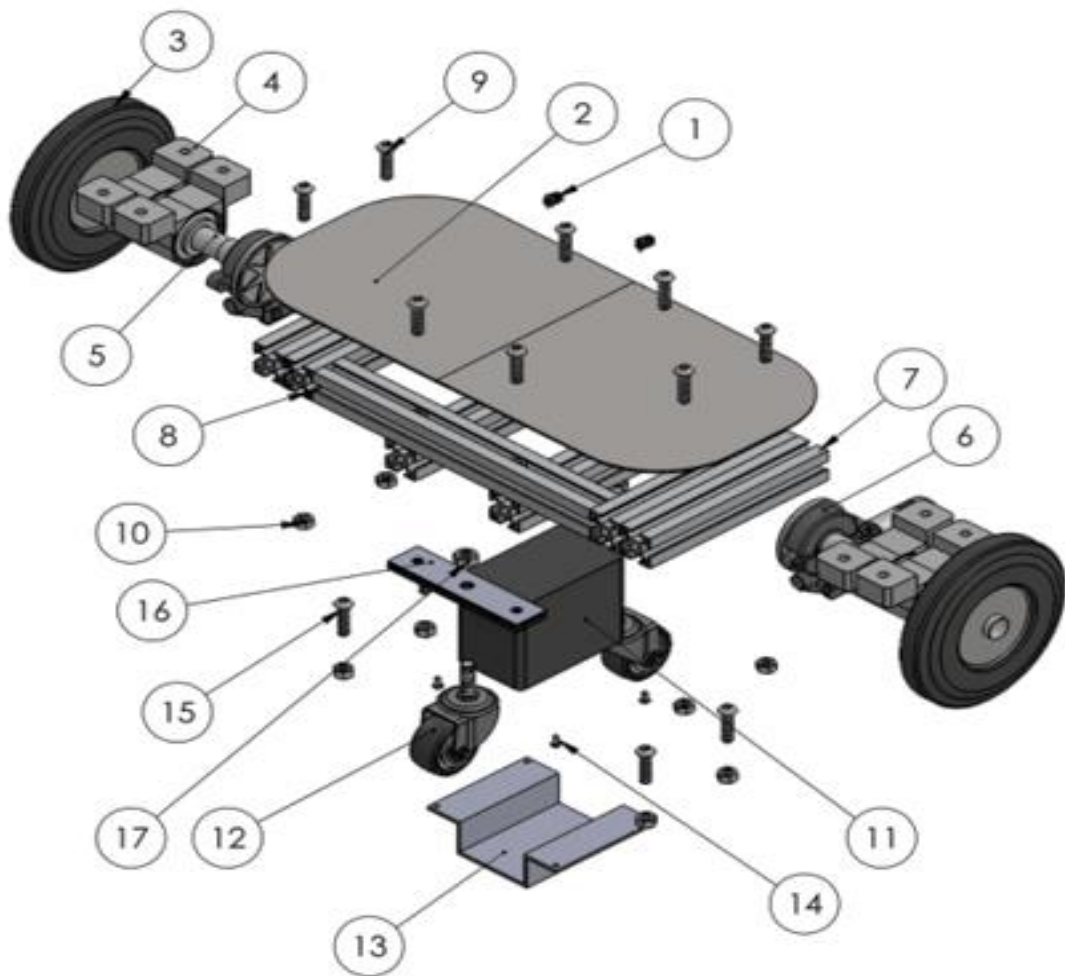
PROTOTYPE DESIGN COLLECTION

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 84

Automatic Seed Sowing Machine

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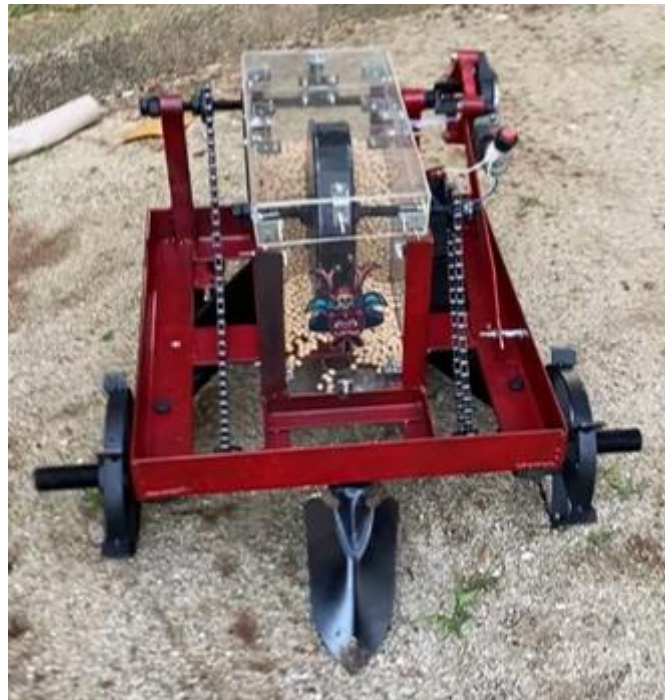
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PROJECT DESCRIPTION

Sowing is the most important process in farming. The existing products or machines are designed only for seed-sowing purposes without the digging process. Both sowing and digging processes are done separately, thus becoming time-consuming and require human effort. The objective of this project is to build a machine that can assist in agriculture processes, reduce manpower, and time saving. The amount of seeds that can be carried by the machine is studied using engineering analysis. Then, the revolution of wheels needs to be synced with the wheeled container so the seed can be poured at one time. Other than that, the machine parts are welded together. The target customer for this project is those involved in agriculture like farmers because most of them are elderly. Besides, it can save a lot of time and can reduce manpower. Most materials used in this project are steel, so the machine is more durable and long-lasting. Plastic is used for containers because it is a strong and lightweight material.

Keywords: *Seeds, Sowing, Farming*

PROTOTYPE



DESIGN PARAMETER

