

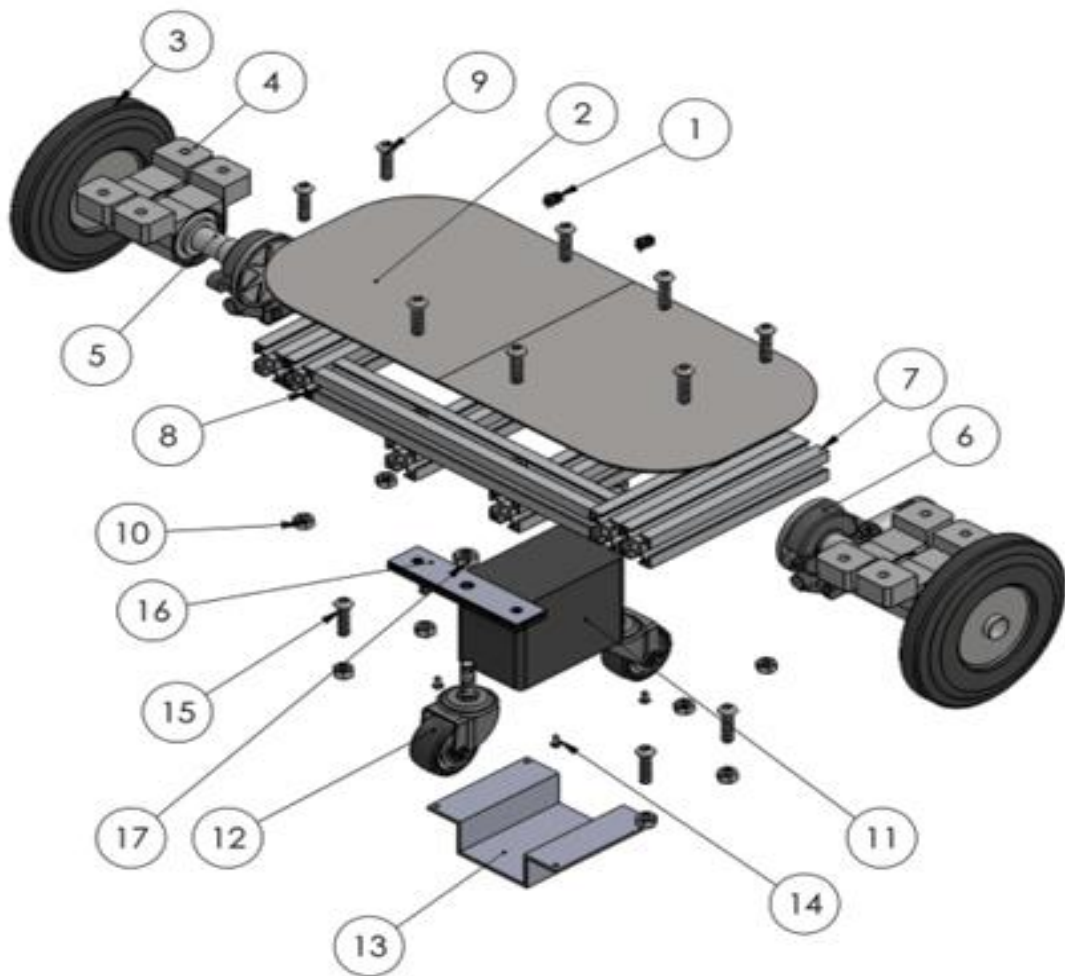
PROTOTYPE DESIGN COLLECTION

SERIES 2



Prototype Design Collection

Series 2



AHMAD NAJMIE RUSLI

**UNIVERSITI TEKNOLOGI MARA CAWANGAN JOHOR
KAMPUS PASIR GUDANG**

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e-ISBN NO 978-967-0033-18-1

First published, 29th September 2023

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PUBLISHED BY:

Universiti Teknologi MARA Cawangan Johor,

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Jalan Purnama, Bandar Seri Alam,

81750 Masai,

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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 43

Pineapple Tart Mould Machine

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PROJECT DESCRIPTION

Pineapple tart biscuits, a quintessential delicacy in Malaysia, possess a rich heritage and are celebrated for their delectable taste. Traditionally, the production of these biscuits relied heavily on manual labor. However, this project aims to introduce significant modifications to the manufacturing process through the implementation of an automated system, catering to the needs of small and medium sized enterprises (SME). The proposed design incorporates advanced features that can enhance production efficiency, allowing operators to control the pace of production based on machine settings. The operation is streamlined as the machine autonomously processes the dough and jam, handling each stage seamlessly from initiation to the final product, which subsequently proceeds to the baking stage. Notably, the introduction of this automated system is poised to yield substantial benefits, including a reduction in energy consumption compared to traditional methods. The streamlined process not only conserves energy but also significantly expedites production compared to manual labor-intensive techniques. In conclusion, this project represents a transformative leap in the production of pineapple tart biscuits in Malaysia. By leveraging automation, it offers enhanced efficiency and energy savings, making it an attractive proposition for businesses, particularly those operating within the SME sector, seeking to scale their production while maintaining product quality and consistency.

Keywords: *Tart, Pineapple*

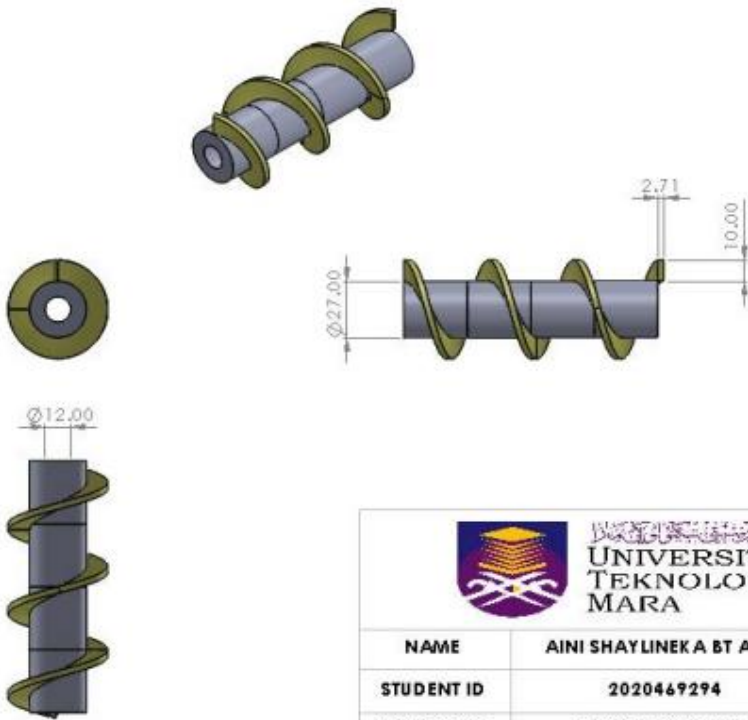
PROTOTYPE



DESIGN PARAMETER




 UNIVERSITI TEKNOLOGI MARA	
NAME	AINI SHAYLINEKA BINTI AB RAZAK
STUDENT ID	2020469294
PART NAME	ASSEMBLY DRAWING



Dimensions shown in the drawing:

- Top view diameter: $\varnothing 12.00$
- Side view diameter: $\varnothing 27.00$
- Side view length: 10.00
- Side view offset: 2.71

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