

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

CHIEF EDITOR:

Ahmad Najmie Rusli

CONTENT EDITORS:

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Norhisyam Jenal

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Nurulnatisya Ahmad

Radzi Abdul Rasih

PUBLISHED BY:

Universiti Teknologi MARA Cawangan Johor,

Kampus Pasir Gudang,

Jalan Purnama, Bandar Seri Alam,

81750 Masai,

Johor Darul Ta'zim.

Tel: +60 7-381 8493

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 139

Semi Automatic Egg Washer for Egg Production

Alan Kennedy Anak Sylvester Maluh ¹, Kamariah Md Isa ^{2*} and Ab Aziz Mohd Yusof ³

^{1,2,3}Mechanical Engineering Studies, College of Engineering, Universiti Teknologi MARA
Johor Branch, Pasir Gudang Campus, 81750 Masai, Bandar Seri Alam, Johor Darul Ta'zim.

*Corresponding author (e-mail): kamariahisa@uitm.edu.my

PROJECT DESCRIPTION

Nowadays, the demand for eggs is increasing and many small industries egg production need to work efficiently to produce more eggs. This project aims to develop and analyze an affordable machine egg washer for the small industry. This machine consists of a semiautomatic system that uses a DC motor. When an egg is rolled to the PVC pipe, the water from the top flows to the lane and the egg will easily roll to the lane. After the egg reaches the center, it will roll to a brush that is rolling with the stainless-steel rod. The rod is rotating with the power of the motor that is connected to the power supply. During testing, it can be seen that the semi automatic egg washer can wash a maximum of 3 eggs in one time. The time taken to wash the eggs is less than 1 second. In conclusion, it can be said that the prototype is functional and ready to be used for egg washing in a small production. Lastly, it is expected that this project will help small industries wash the egg with ease and comfort.

Keywords: *Semi automatic egg washer*

PROTOTYPE



DESIGN PARAMETER

