

# 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, 29<sup>th</sup> September 2023

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**PUBLISHED BY:**

Universiti Teknologi MARA Cawangan Johor,

Kampus Pasir Gudang,

Jalan Purnama, Bandar Seri Alam,

81750 Masai,

Johor Darul Ta'zim.

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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 92

### Automatic Whiteboard Cleaner

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#### PROJECT DESCRIPTION

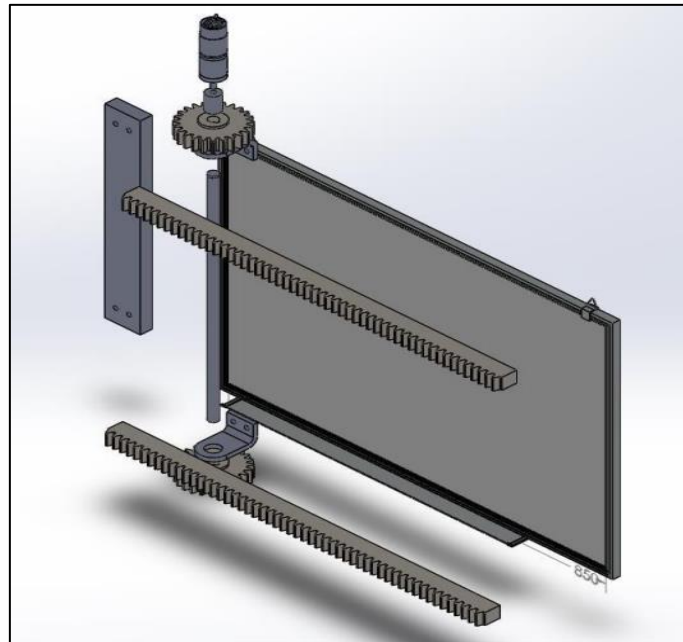
The name of this project is Automatic Whiteboard Cleaner. This idea is inspired when students or teachers leave the classroom and forget to clean the whiteboard because they are rushing to go home. From there, the project is to make it easier for students or teachers to clean the whiteboard. There are some problems with making this project available in all schools, universities, or offices. For example, this project needs an electric power supply when it works. Therefore, this project needs a power supply to do the work. The objective of this project is to help people clean the whiteboard with a simple and easier method. In conclusion, hopefully, this project can make it easier to erase the whiteboard and use it in the classroom, school, office, or other place that uses the whiteboard for presentation. Therefore, demand for this project will increase in the industry.

**Keywords:** *Whiteboard, Classroom, Innovation*

#### PROTOTYPE



DESIGN PARAMETER



2
1

ITEM NO.	PART NUMBER	QTY.
1	Whiteboard Base	1
2	Fixing 2	2
3	Fixing 1	2
4	Whiteboard Tray	1
5	shaft	1
6	bracket 1	2
7	frame part 2	1
8	ISO - Spur gear 5M 24T 20PA 30FW --- S24C50H40L20.051	2
9	ISO - Rack-spur - rectangular 5M 20PA 30FW 40PH 300L---SAll	2
10	lambahan untuk shaft	1
11	DC PLANET GEARED MOTOR M PG-45775246000- 71.2K	1
12	Connector to motor	1

A
A

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UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DRAWN		
CHECKED		
ENGINEER		
QA		
COMMENTS:		

TITLE:

SEE DWG. NO. **A** Final design

SCALE 1:8 WEIGHT: SHEET 1 OF 1

2
1