

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 24

Design and Fabrication of Shoe Rack with Dryer Function

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PROJECT DESCRIPTION

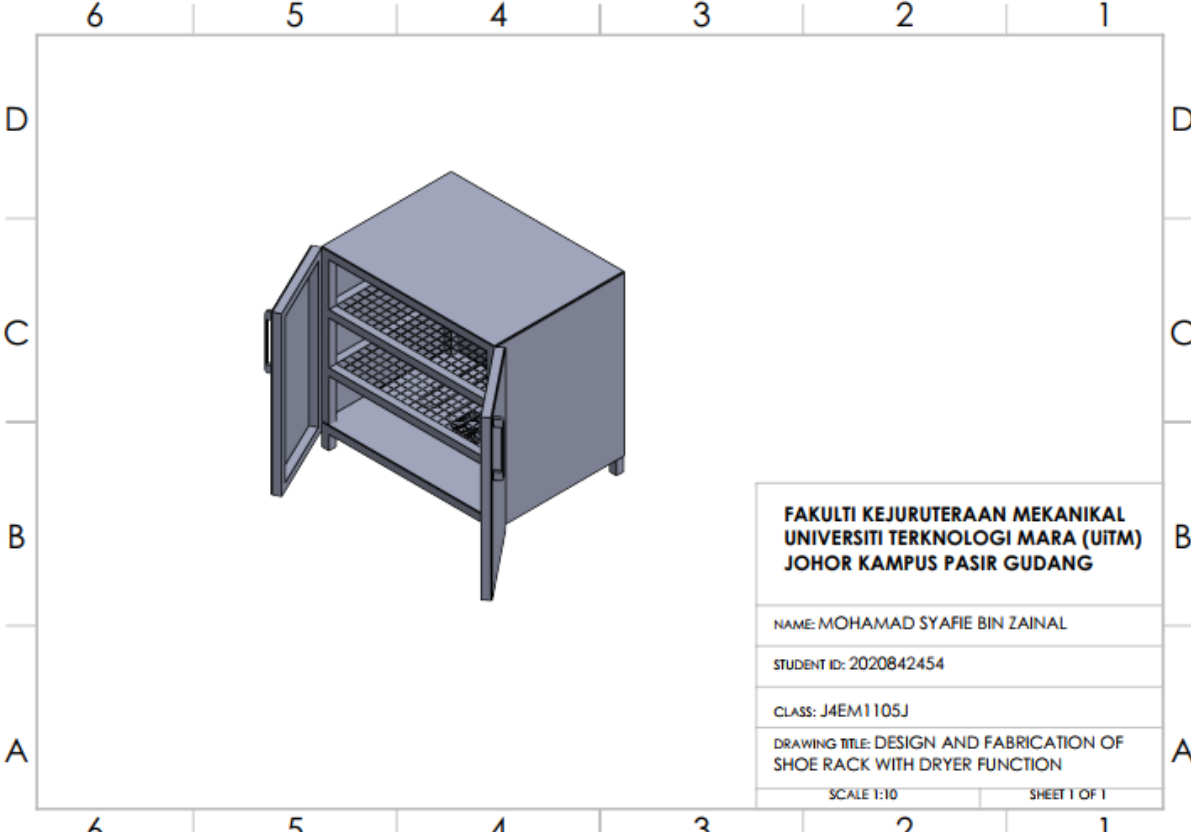
Nowadays, many people struggle to dry their shoes on rainy days, making a shoe dryer a valuable tool for daily life. While there are many shoe racks on the market, there are few options that can both store and dry shoes simultaneously. The purpose of this study is to design and fabricate a shoe rack with a built-in dryer. The shoe rack with a dryer function will help people dry their shoes quickly, solving the problem of damp shoes on rainy days. SolidWorks software was used to design and analyze this product whereas welding technique was utilized to connect the frame. Screws were used to attach the frame to the aluminum composite panel that covers the rack. The resulting shoe rack will store and dry shoes simultaneously without negatively impacting the environment. This shoe rack saves time and shortens the drying process, making it an ideal solution for those in need of quick shoe drying, especially on rainy days.

Keywords: Storage, Trolley, Trash collector

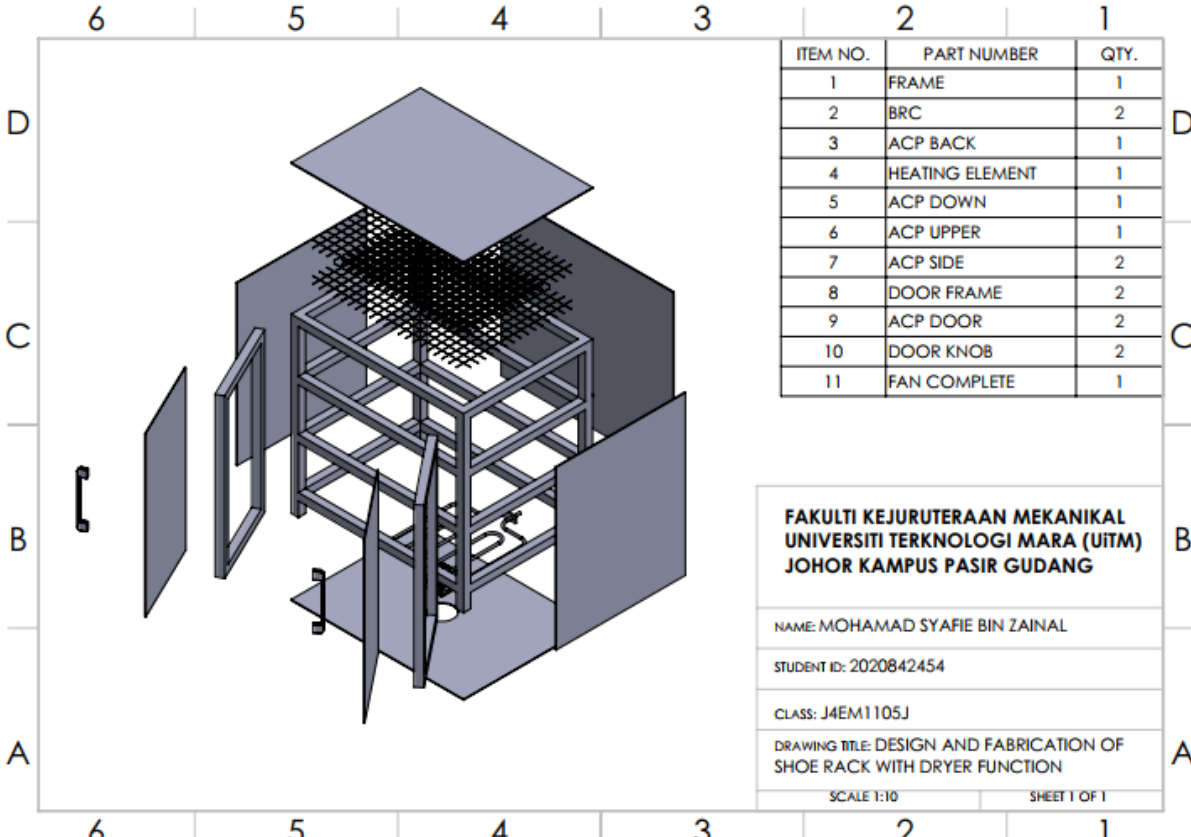
PROTOTYPE



DESIGN PARAMETER



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DRAWING TITLE: DESIGN AND FABRICATION OF SHOE RACK WITH DRYER FUNCTION	
SCALE 1:10	SHEET 1 OF 1



ITEM NO.	PART NUMBER	QTY.
1	FRAME	1
2	BRC	2
3	ACP BACK	1
4	HEATING ELEMENT	1
5	ACP DOWN	1
6	ACP UPPER	1
7	ACP SIDE	2
8	DOOR FRAME	2
9	ACP DOOR	2
10	DOOR KNOB	2
11	FAN COMPLETE	1

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