

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 57

Automatic Cat Feeder

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PROJECT DESCRIPTION

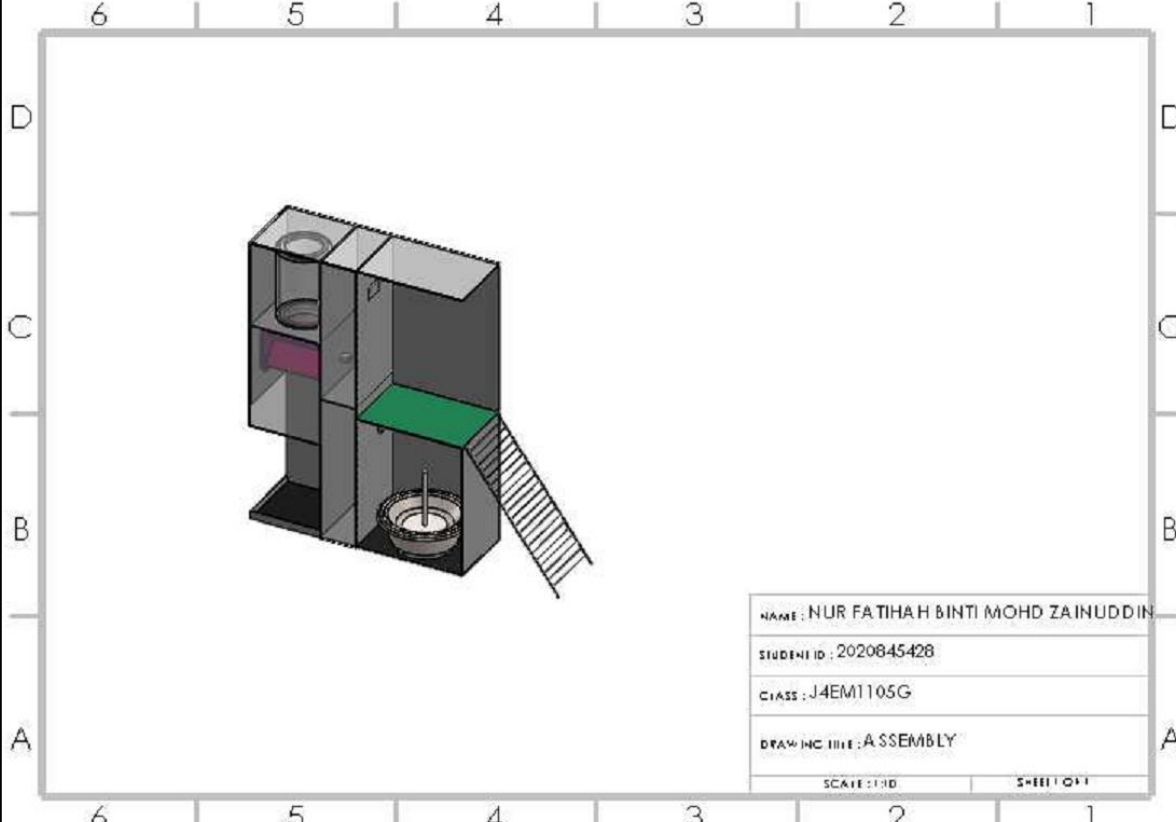
People enjoy providing food and water to cats, but they often leave it on the floor or on the road, resulting in cats being exposed to various infections due to food and water contamination. The objectives of this study are to design, analyze, and fabricate an automatic cat feeder with multiple functions. This product is constructed using aluminium composite panel (ACP) and acrylic board. The automatic cat feeder comprises three parts, which are the food part, wire part, and drink part. The total size of the feeder is 600mm x 800mm x 200mm. The product incorporates a timer, motor, and pump. Busy cat owners can use this automatic cat feeder to save time. The timer allows for scheduling, while the pump is used to move fluids. Results from product testing indicate that the maximum dry food mass the product can hold is between 0.1kg and 0.3kg. All the electrical components function properly. In conclusion, this project has successfully achieved all its objectives. The product provides cat lovers and others with the opportunity to provide food and drinks to cats in a sterile environment.

Keywords: Automatic, Cat feeder, Pet's owner

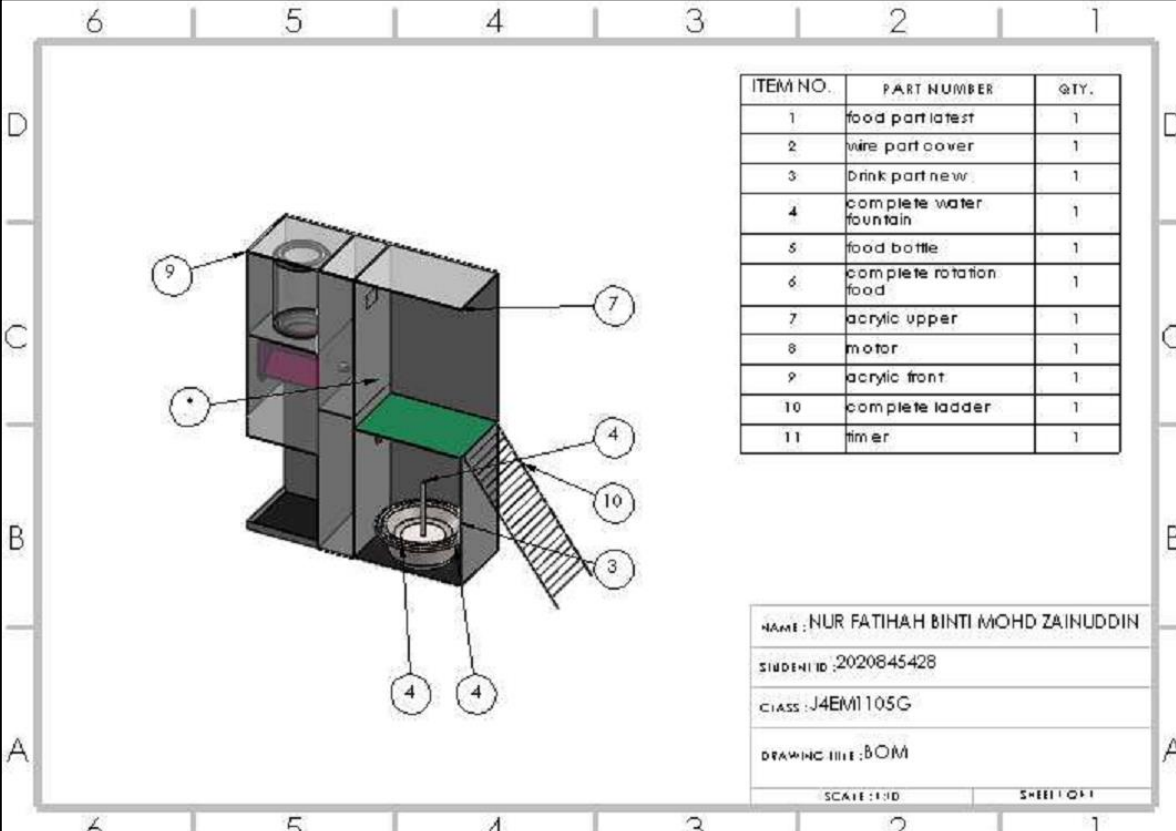
PROTOTYPE



DESIGN PARAMETER



NAME : NUR FATIHAH BINTI MOHD ZAINUDDIN	
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CLASS : J4EM1105G	
DRAWING TITLE : ASSEMBLY	
SCALE : 1:10	SHEET 001



ITEM NO.	PART NUMBER	QTY.
1	food part latest	1
2	wire part cover	1
3	drink part new	1
4	complete water fountain	1
5	food bottle	1
6	complete rotation food	1
7	acrylic upper	1
8	motor	1
9	acrylic front	1
10	complete ladder	1
11	timer	1

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