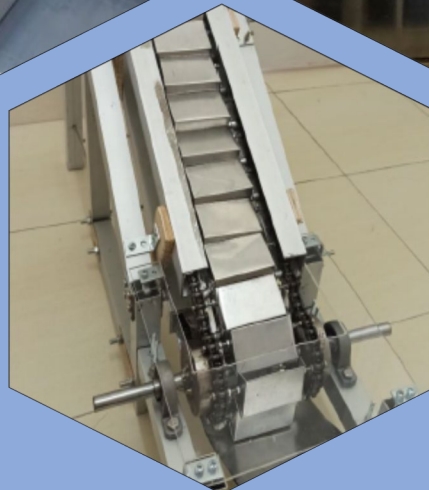
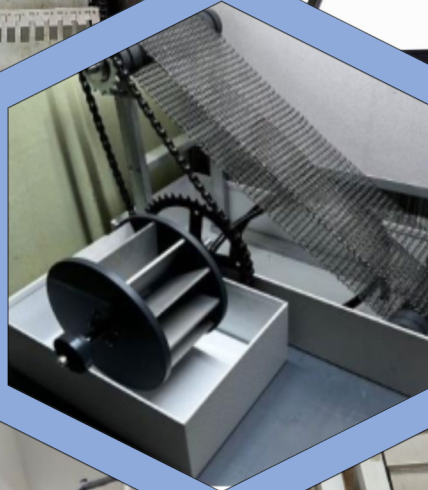


# PROTOTYPE DESIGN COLLECTION

## SERIES 1



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**e-ISBN: 978-967-0033-07-5**

First published, 30 September 2022

**EDITORS:**

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**PUBLISHED BY:**

Pusat Pengajian Kejuruteraan Mekanikal,  
Universiti Teknologi MARA Cawangan Johor,  
Kampus Pasir Gudang,  
Jalan Purnama, Bandar Seri Alam,  
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## CHAPTER 38

### Design, Analysis, and Fabrication of Portable Washing Machine

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#### PROJECT DESCRIPTION

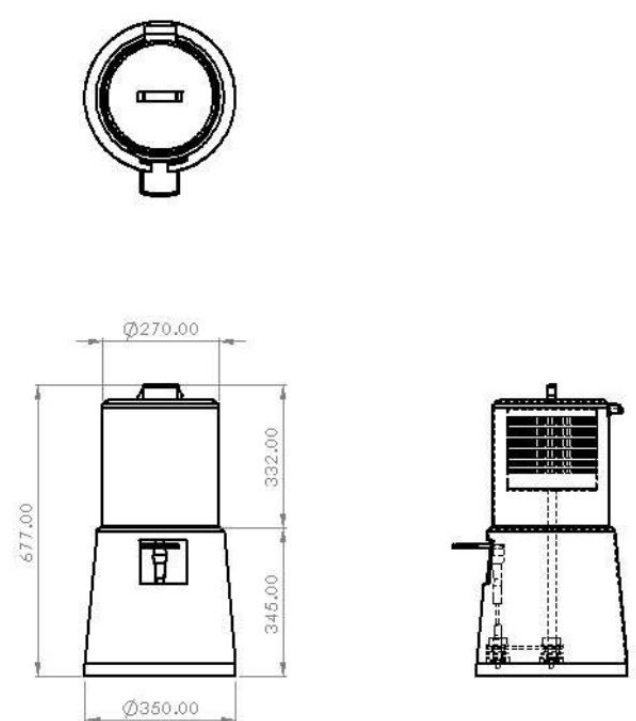
Washing machine is an invention that has existed for many years to help people to wash their clothes in the simplest way other than washing clothes by hand which can be tiring. However, some washing machines can be expensive, heavy, and big, which means it is not suitable to bring along anywhere. Therefore, people invented a mini washing machine or portable washing machine to use to wash clothes when needed. Portable washing machine works the same as a normal washing machine, but the difference is it is much smaller in size which means it can be brought along anywhere and more affordable to a lot of people. This project is to design a portable washing machine that will function manually, small, affordable, and lightweight so that it can be easy to bring along anywhere needed. Additionally, it can also be an eco-friendly portable washing that can help a lot of people in so many ways.

**Keywords:** *Washing machine, Portable washing machine*

#### PROTOTYPE



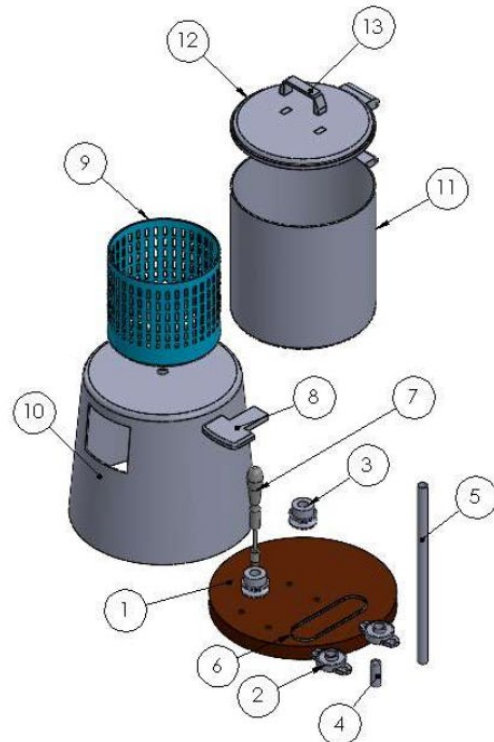
DESIGN PARAMETER



Technical drawing showing the design parameters of the portable washing machine. The drawing includes a top view of the lid, a front view with dimensions, and a side view showing the internal mechanism. The dimensions are as follows:

- Top view diameter:  $\varnothing 270.00$
- Front view total height: 677.00
- Front view upper section height: 332.00
- Front view lower section height: 345.00
- Front view base diameter:  $\varnothing 350.00$

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DRAWING TITLE: PORTABLE WASHING MACHINE
SCALE: 1:10
SHEET 1



Exploded drawing of the portable washing machine, showing the assembly of various parts. The parts are numbered 1 through 13:

- Base
- Bearing
- Pulley
- Steel Rod
- Steel Pipe
- Belt
- Spiral Screwdriver
- Pedal
- Basket
- Base Cover
- Trash Can
- Cover
- Handle

ITEM NO.	PART NUMBER	QTY.
1	Base	1
2	Bearing	2
3	Pulley	2
4	Steel Rod	1
5	Steel Pipe	1
6	Belt	1
7	Spiral Screwdriver	1
8	Pedal	1
9	Basket	1
10	Base Cover	1
11	Trash Can	1
12	Cover	1
13	Handle	1

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DRAWING TITLE: EXPLODED DRAWING OF THE WHOLE PROTOTYPE
SCALE: 1:8
SHEET 16