

# PROTOTYPE DESIGN COLLECTION

## SERIES 1



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

First published, 30 September 2022

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**PUBLISHED BY:**

Pusat Pengajian Kejuruteraan Mekanikal,  
Universiti Teknologi MARA Cawangan Johor,  
Kampus Pasir Gudang,  
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## CHAPTER 37

### Design, Analysis, and Fabrication of Street Sweeper Machine

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#### PROJECT DESCRIPTION

A clean environment is a dream for every humankind. Cleaning is a strenuous activity and there is a need to develop techniques for appraising new products in a systematic manner. The problems that we face nowadays is that the cleaning process could take time. The fact that people still use the traditional method which is sweeping, is undeniably a slow process even though it is an effective way to clean. So, the objective of this project is to fabricate an efficient cleaning machine, with minimum effort used that can improve the cleaning work-rate. It can save a lot of time. The methodologies that I am using for this project are planning, analysis, design, and fabrication. Project planning is very important to make sure that the progress is according to the plan. Next, engineering analysis on motion and strength is applied using SOLIDWORKS 2021 Software with the help of visual representation. The project was designed by sketching, and then converted into 3D drawing. Lastly, fabrication process by applying the cutting, grinding, drilling, metal joining, and finishing process to get the best outcome. By applying all the fabrication process, this product is completely done and functioning well. Therefore, this is a good and a very eye-opening innovation in the cleaning and sanitizing industry.

**Keywords:** *cleaning, efficient, methodology, analysis, machine*

#### PROTOTYPE



## DESIGN PARAMETER

