

PROTOTYPE DESIGN COLLECTION

SERIES 1



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CHAPTER 84

Design, Analysis and Fabricate of Smart Vacuum Cleaner

Alif Bin Amaluddin and Ahmad Najmie Rusli

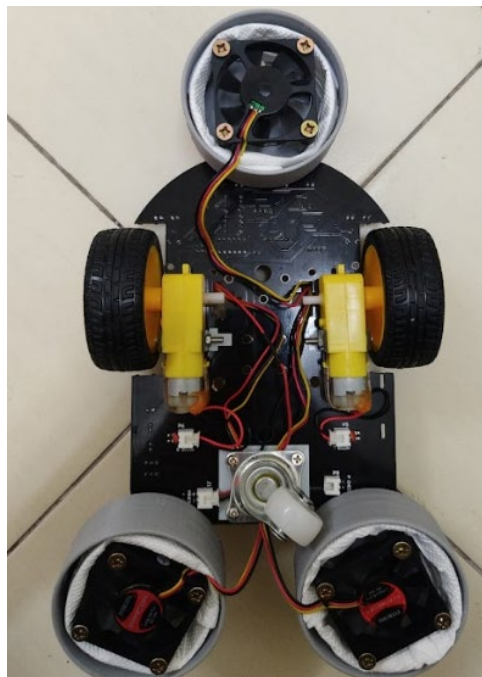
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PROJECT DESCRIPTION

Smart vacuum cleaner is the product that has been chosen for this final year project. The project begins by identifying the problem faced by the current product which is a round shape not being able to clean all types of floor. The objective of this project is to design, analyse, and fabricate using the good material and part inside of the vacuum cleaner. By using the Solidwork software, the sketch and the part can be made with true dimension and calculation. Solidwork also will help us in doing analysis of the part that holds a lot of forces. Then, the analysis has been made to find the stress, displacement, and torque. The part of the vacuum cleaner comes from PLA material and aluminium plate. The vacuum was operated by three infra-red sensors and powered by a 12V battery. It also has three rounded shape vacuums located at the main body for cleaning purposes.

Keywords: *Vacuum cleaner*

PROTOTYPE



DESIGN PARAMETER

