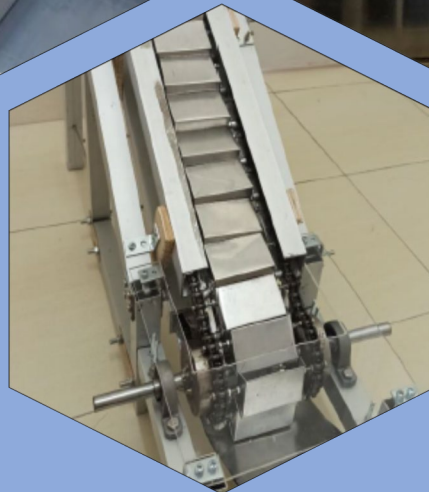


PROTOTYPE DESIGN COLLECTION

SERIES 1



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CHAPTER 26

Design, Analysis and Fabrication of Staircase Climbing Trolley

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PROJECT DESCRIPTION

Manual trolleys are commonly used in warehouses, building sites, malls, and residential areas. When this trolley is used on the staircase, there will be some restrictions and limitations as it cannot travel and climb through stairs when carrying heavy loads. Therefore, people will carry the goods manually with their hands which in a long period of time will give a serious health problem which are back pain and muscle injury. As a solution, this staircase climbing trolley project is being proposed to carry goods or loads up and down the staircase easily. This staircase climbing trolley aims to resist heavy weight or loads without having any problems and lift the heavy loads across a staircase with smooth and less effort as possible when there are no lifting facilities namely escalator and elevator. The SolidWorks software is used to make the design of the selected design concept to give a clearer vision about the dimension of the product. Moreover, some basic machining processes will be used such as cutting, drilling, and welding in order to fabricate the product. After all the fabrication process has been done, the result shows that the product could function well and ready to be used to lift loads. In conclusion, this product could be beneficial to a lot of people as it can ease the burden of lifting loads on plane surfaces and across a staircase.

Keywords: *Staircase Climbing Trolley*

PROTOTYPE



DESIGN PARAMETER

