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PROJECT'S TITLE:

FEET FIRST (ROTATABLE SHOE RACK)

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ABSTRACT

Shoe racks, with several different designs, are common furniture storage units available in the current market. Ergonomic researchers and designers have created new ergonomic shoe racks due to usability problems in existing conventional shoe rack designs that can lead to users experiencing certain kinds of musculoskeletal injuries or discomforts. In these existing ergonomic shoe racks, however, there are several weaknesses that can prevent usability. Feet First an attempt to design and create a rotatable shoe rack that implements solutions to the flaws in the current ergonomics for enhanced usability. Two hand-drawn model design phases with selection matrices were developed after performing market analysis and listing the pros and cons of available shoe rack designs on the market to choose the most possible design prototype to be used. The design process of the selected prototype rotatable shoe rack was first conducted using Solidworks software. Overall, the rotatable shoe rack Feet First can be considered as a good functional product according to the performance, data and feedback collected from the testing as it manages to achieve all of the objective.

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1.1 OVERVIEW OF THE PROJECT

Due to usability issues in existing shoe rack designs, many designers have looked into the development of ergonomic shoe racks. However, there appear to be a number of possible flaws that still exist in these ergonomic shoe rack designs. For an example, this ergonomic shoe rack is not durable. Next, the shoe rack takes up a lot of space and it is not easy to clean. Throughout our observation, almost all the respondents nowadays have more than 5 pairs of shoes and for those with large family members, they require a large shoe rack that can accommodate all the shoes. The target of this project is to create a shoe rack that can be used by either a large family member or students that stay in a rented house or college. The invention of this shoe rack is to save space and at the same time it can store a lot of shoes. Furthermore, it can also keep the doorway clean. In addition, the production of this shoe rack will have a lower market price but high quality. So, it will last for a long time.

1.2 PROBLEM STATEMENT

Nowadays people only put and place their shoes along the doorway. It can make the doorway look messy and muddy coming from the shoes behind. We need to leave a good impression on the visitors such as family and friends when they enter our home. It is because they will see the doorway when they come into our house or office.

Moreover, some people love to collect shoes and own up to five pairs of shoes on their own for collection. Either they have to purchase another shoe rack, or they have to buy a huge shoe rack to store all of them. If we own more than one shoe rack or a wide shoe rack, the room or space will look small and narrow.