

DESIGN AND DEVELOPMENT OF AN ADJUSTABLE ROWING MACHINE, WITH VARIABLE INTENSITY LEVELS

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ABSTRACT

This project is about creating a rowing machine which is an exercise machine which allow user to perform rowing workout and to target different part of back muscles. The rowing machine has a flywheel which utilizes the principle of inertia to create smooth motion as well as minimize injury to the user. This machine consists of types of mechanism used to create the rowing machine and its applications. There are also many calculations involve and some derivations for the calculations.

These calculations are very important in starting the project which includes speed of the flywheel, static analysis, determination of center of gravity and energy produces by the flywheel and so on. Other than that, it also consists of the materials used in my project. This report explains the manufacturing process, design of adjustable handle and machine itself, the way it works and the construction of the machine.

There are some diagrams and pictures attached to give readers more idea and more understand about machine and its concept.