

**DESIGN, CONSTRUCTION, AND PERFORMANCE TESTING OF A WALL-MOUNTED
WHEELCHAIR LIFT FOR A TWO-STOREY HOUSE**

A Project Study Report Presented

to the Faculty of the Department of Mechanical Engineering

Central Philippine University

Jaro, Iloilo City, Philippines

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Mechanical Engineering

By:

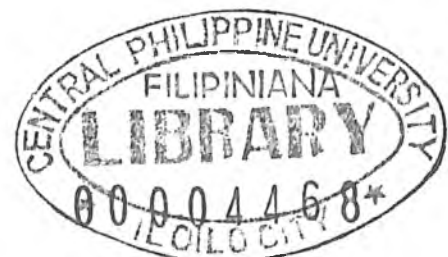
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ABSTRACT

For people with disability and difficulty, they need wheelchairs in their day-to-day tasks. A wheelchair in fact plays a vital role and function among people who cannot take the flight of stairs. They are faced with challenges to get from one storey in a building to another. People who are not physically able require assistance from those who can carry the wheelchair up the stairs. Not only these people on a wheelchair are having difficulties moving up from one floor to another, but also pregnant women, persons with other types of disabilities, and senior citizens. That is why stairlifts, elevators and ramps are installed in a building nowadays.

Nonetheless, stairlifts and elevators can be installed at residential homes no matter how expensive if a family wants a safe, durable, and of good quality transportation device. These existing technologies present a relevant and significant concept which led to the research title "Design, Construction, and Performance Testing of a Wall-Mounted Wheelchair Lift for a Two-Storey House" for a single person whose function serves as a wheelchair that will transport a less able and physically challenged person from floor to floor. Since most of the houses in Philippines are mostly two-storey, thus, the design is functionally matched and appropriate. The construction of the wall-mounted wheelchair lift was innovated for additional safety feature, easy installation, and plain affordability. To ensure better results, this study aimed at conducting a performance test of the wall-mounted wheelchair lift.