STUDY ON REHABILITATION EQUIPMENT USING CATIA SOFTWARE: STANDING FRAME

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ABSTRACT

The objectives of this study are to design by redesign'the previous standing frame and implement suitable parameters and specification for the new design of standing rehabilitation frame. The parameters and specification apply can maximize the efficiency as well as solve the problem that occur on the previous design of standing frame. To determine the best design in the process of developing the standing rehabilitation frame, CATIA software in order to do the CAD analysis and CAE analysis. In the design, three major characteristics are emphasized in developing the product: Lifter - to lift patient from the wheel chair using power screw located in the main frame, standing table and arm rest - to give hand and body support to the patient and main frame - to help and hold the patient in standing position. To select the best design, each sample sketch was briefly analyzed to suit the required specification. The sketches are then converted to CAD (Computer Aided Design) design and being analyzed using CAE (Computer Aided Analysis) that were integrated in CATIA Software. The design can be considered finished only after all of the analysis is done successfully. Hopefully with this new design of standing rehabilitation frame, it can promise an improvement in the current standing frame design. This design feasible, affordable and can easily manufacture especially when mass production.

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