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# PRODUCT DEVELOPMENT OF EQUIPMENT FOR PEOPLE WITH DISABILITIES

The Development of an

Axilla Crutch - A Case Study

A thesis presented in partial fulfilment of the requirements for the degree of Master of Technology in Product Development at Massey University

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#### ABSTRACT

The application of product development in the area of designing equipment for people with disabilities was studied using, as a case study, the development of a new design of axilla crutch.

From the literature available it became apparent that very little work on the product development process has been carried out within this industry. This situation exists side by side with, and may be strongly related to, a dearth of basic information on the market requirements and size for the equipment currently being used.

To overcome this problem for the case study a questionnaire was used to provide basic information for the axilla crutch. This was supplemented by a literature search which provided some information as to the essential operation of the equipment. This information provided the basis for the design of the new axilla crutch which was then field trialled.

From the results of the work carried out, it can be seen that the product development process in the disability sector is essentially the same as in other areas. The difference comes in the emphasis that needs to be applied to the initial market research and functional definition of the equipment, and the final assessment of the prototype.

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