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# **Enhancing the Independence and Mobility for the Elderly and Disabled**

A New Approach for Older Users

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Fig. 1

# ABSTRACT

This applied design research expresses the increasing importance of mobility aids through redesigning and enhancing the abilities of an existing mobility walker; which creates both a new product and enlightened user experience that encourages elderly and disabled to remain active and independent in all aspects of life.

Through personal experience and research, this project outlines how important mobility products are to the elderly and disabled communities and that existing products are out-dated and repeatedly fail to meet the growing needs and wants of these individuals. This is achieved through experience focused methods and processes designed to increase empathy and understanding of the target audience.

This new mobility product promises to eliminate the requirement for multiple aids, and remove previous limitations that exist both socially and physically within

the environment; thus strengthening the trust bond between the user and the product. This outcome therefore presents a practical solution to help support the market increase for personal mobility, through integrating new and feasible, electric capabilities in addition to redesigning the entire structure and appearance of the walker from scratch.

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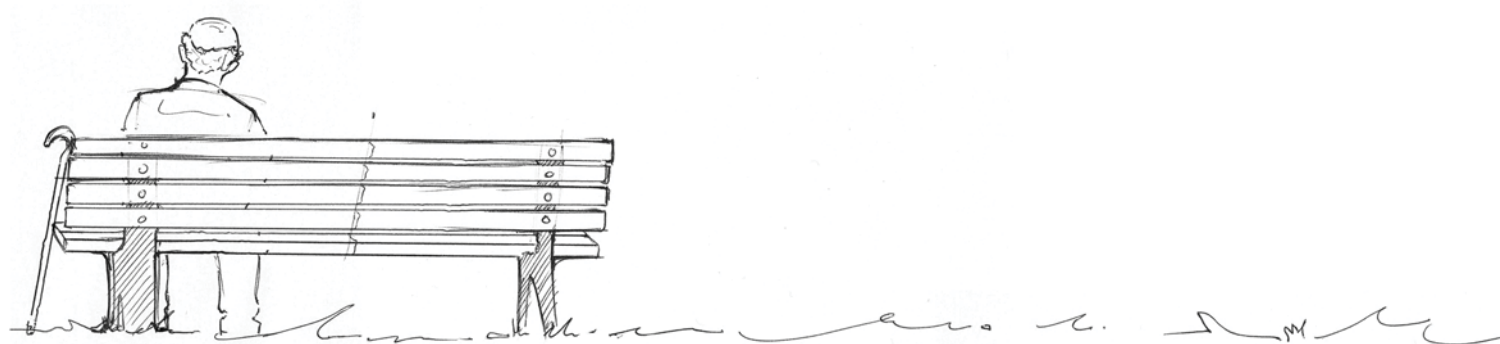


Fig. i

# PREFACE

This project was ignited and developed through my own intimate experiences gained from working at my parent's retirement homes after Graduating in 2010 from Massey University with a Bachelor of Transport Design. This two year experience advanced my decision to return to Massey and undergo a Master's degree and bring my project to light.

At this stage I've witnessed many facets of the rest home environment; seen the daily rotation of life and made many local friends, but also witnessed the effects aging has on the human condition. I had seen residents full with life, active and engaging, alongside others who appeared to have been forgotten by the world, slowly becoming into a shadow of their former self.

In truth, many would not survive without retirement homes; without the constant 24 hour health and medical care, constant support by the caregivers,

and without the safe and carefree environment they provide. But in my opinion, there are many indicators that some residents could survive independently outside this environment if it were not for their reduced physical abilities. Witnessing this, mixed with my passion for design, I felt compelled to combine these experiences and undertake this research project; with a potential outcome of igniting future opportunities.

However, it was one incident in particular that sparked the pathway for my project and let me look at the developmental needs of mobility aids. I noticed an elderly resident resting on his walker at the end of the drive watching traffic. The only thing holding him at the gates was the physical condition of his body, as if these gates had now become the extent of his world. This is when the concept occurred to me that improved personal mobility can drastically enhance one's quality of life.

Without my involvement with the retirement homes I don't believe I would have noticed this design problem. These experiences have helped to mould my design into a way that can help these individuals, and ultimately, enable my parent's generation to have a more comfortable and independent future.



Fig. 2