



Ushering in the Age of Endemic

**THE 11TH INTERNATIONAL INNOVATION,
INVENTION & DESIGN COMPETITION
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EXTENDED ABSTRACTS BOOK



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NOBLE WALKING STICK

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ABSTRACT

Noble Walking Stick is a modification of an existing crutch stool which functions as a walking stick, a stool, and a shopping trolley. It comes with an alarm device which flashes warning light when triggered in an event of emergency. Users can activate the alarm to spread loud sound to ask for attention and help. Moreover, it comes with wheels to serve as a shopping trolley. For safety reasons, a safety reflective sticker is used to help the user to be always seen easily. The targeted customers for the Noble Walking Stick are the elderly. A United Nations report (2020) states that by 2050, the number of older people in the world will exceed the number of young for the first time in history. Malaysia's Healthcare National Key Economic Area estimated that Malaysia will reach ageing nation status in just 10 years, with more than 15% of the population being aged 60 and over (Yusof, 2019).

Keywords: walking stick, elderly, falls

1. INTRODUCTION

Do you have elderly at home who have difficulties in walking and are unsteady while standing up but like to visit the nearby markets or coffee shops? Noble Walking Stick is originated from the idea and designed with the hope of giving more support to the elderly when they are moving or standing. Noble Walking Stick is modified from the existing crutch stool in the market. Basically, there are seven functions of Noble Walking Stick. Firstly, it acts as a walking cane which is a perfect tool to help us to keep our balance. Secondly, it is a portable cane chair. Thirdly, the shaft is adjustable, and it can suit different height of users. Fourthly, it is an emergency bell which includes light and sound to warn others of an emergency and also as a signal for help. Fifthly, it comes with a shopping bag which enables users to bring home their purchases. Sixthly, there are safety reflective stickers around all the three poles of the Noble Walking Stick which make the users can be seen easily in all conditions. Finally, the two wheels that are attached to the Noble Walking Stick have the similar function of a shopping trolley. The seat height of the Noble Walking Stick is 48cm and the seat diameter is 21cm. The total height is between 87cm and 101cm. It weighs approximately 1.1kg. Noble Walking Stick is lightweight. It can be used indoors or outdoors. Another feature of the Noble Waling Stick is that it does not need much maintenance. The materials used for this Noble Walking Stick are a crutch stool, one set of LED light, one set of 12 Volt Speaker, a washing bag, 7 pieces of self-reflective stickers and two wheels.

2. METHODOLOGY

We had done some research from the Internet regarding the aging status in Malaysia and around the world. Besides that, we also interviewed the elderly at our homes and schools. We had roughly interviewed ten senior citizens and some special needs people around us. We worked in groups of three and distributed the work among us. One of us interviewed the target people, while another one was responsible to jot down whatever information given by the interviewees while the other group member was recording all the information using a computer. Our teachers assisted us to proofread the findings and interview records. Then, they gave us necessary guidance as well as help in the process of completing this project.

3. FINDINGS

Below are some of the findings that we had identified. First and foremost, we discovered that eight out of ten senior citizens felt ashamed or shy to use walking stick in their daily life activities. They are reluctant to use it even though they had experienced falls before. However, they just like to move around freely just like the times when they are still young. Apart from that, seven out of the ten interviewees said that they like the design of the Noble Walking Stick as it looks stylish and handy. Furthermore, they said that they are very happy with the functions of the Noble Walking Stick especially the shopping bag and the wheels. Not only that, three other interviewees mentioned that they are surprised by the alarm device, and it is extremely useful during emergencies. They all said that they are interested in the product, and they would buy the product when it is available.

4. CONCLUSION

Noble Walking Stick is an extremely helpful tool for the senior citizens and some special needs people. It can give stability and helps to support the weight of the user while standing and walking. It also enables the user to rest comfortably and safely in a seated position when necessary. Every senior citizen should at least own one Noble Walking Stick to help them with their daily routines. With that, the possibilities of having bad falls or accidents can be reduced and the quality of their lives can also be improved.

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