

The device of finding the lost for the senior

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ABSTRACT

As the population trends, many countries gradually move towards an aging society. Many products in the design for older people have begun to consider the needs of senior citizens but still far below to cope with the need of an aging society. Capability degradation of older people can be divided into two major realms: First, the degradation of perception; and the second is the physical degeneration. This study investigated the memory problems caused by perception degradation. Due to memory degradation for older people, there are often forgotten common portable items such as: glasses, keys, purses etc. Systematic and innovative ways-TRIZ theory is introduced. TRIZ theory with the KJ method and Mind Mapping are addressed for older people to find lost objects. TRIZ theory is applied to product design of search device, pro-finder, after using KJ method to find the core theme of discussions. Followed by mind-mapping and functional analysis using CREAX one then analyzes the way to solve the problems in the design of products. Finally, a 3D printing from reverse engineering is employed to render the case of containing the mechanism of pro-finder. In this study, the searching device, pro-finder, use ultra-high frequency reception and transmission signals as a medium. The original ultra-high frequency electric bell purchased from store is significantly modified such that the original battery of 4.5 V was revised to two 1.5 V batteries, in such base seat, battery and wires are changed as well. The result is to reduce the shape significantly, in order to enable users to easily carry and combine it with small entities such as keys, purse. If lost, one can use the transmitter to generate signal to the receiver and retrieve lost items.

Keywords : TRIZ theory、 KJ method、 Mind Mapping、 functional analysis

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