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i-seeuWatch

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Abstract - The 24 hours of a visually impaired person's life are a hard test that no parable can completely convey; life for them is extremely different from life for someone with great eyes. The mobility of the blind is restricted. According to the World Health Organization, there are currently more than 285 million visually impaired people living in the world. Of those, only 50,000 or so are officially registered with the Malaysian Welfare Department, and an additional 50,000 are presumed to be living without identification for a variety of reasons. One of the products that can help people with vision impairment is the i-seeuWatch (blind). The i-primary seeuWatch's purpose is to aid blind people and individuals with severe vision impairments by providing a complete location and a sophisticated system that allows them to just speak, and the watch will direct them; all they have to do is follow the instructions given by the watch system. When they ask a question, the watch leaves a voice message. Additionally, by offering early warning, the distinctiveness of this i-seeuWatch can help and facilitate OKU (blind) users. The areas are explored using sound sensors, and they also give users a vibration they may feel on their arms. Next, this watch have provided complete GPS access on this watch, which will work automatically for 24 hours non-stop to track their whereabouts. The i-seeuWatch will send real-time notifications to users without requiring them to open the app. The goal of developing this product is to make it easier to use for blind users. This rubber product is lighter and more flexible. It is also washable and resistant to sand, seawater, and moisture. This product uses purple and yellow colors. The color yellow evokes a cheerful spirit, joy, and relaxation, while the color purple can provide serenity and inspiration. Magnets are also included to allow users to adjust the size of the bracelet according to their comfort.

Keywords — *i-seeuWatch, blind, disabilities*

I. INTRODUCTION

Blindness is defined as a condition of not being able to see. Blind individuals cannot see. In a strict sense, "blind" signifies a person's inability to distinguish darkness from bright light in both eyes. The term blindness has been modified to include various

types of visual impairment. Blindness often used today describes severe visual impairment in one or both eyes by retaining some residual vision.

Visual impairment, or low vision, means that a person cannot see well even if they use glasses, contact lenses, medication or surgery. Visual impairment can range from mild to severe. Worldwide, there are about 300 million-400 million visually impaired people for various reasons. Of this group, about 50 million are completely blind. About 80% of blindness occurs in people over the age of 50. The movement of a blind person is very limited, and so is the opportunity to earn a living to support a family, which is often very painful. There are few job opportunities offered, and if there are, the number is very limited, and there is no term 'choice' to them.

According to a report by the WORLD HEALTH ORGANIZATION, there are more than 285 million visually impaired today. Of that number, only about 50,000 people are registered with the Malaysian Welfare Department, and it is believed that another 50,000 have not registered for certain reasons. A small percentage of those registered are due to a lack of awareness of the opportunities they can take and efforts to improve the situation they face. Many of them can only hope for the mercy of family members and the public to continue living. It is a very sad statement when only a small number of these people can be self-sufficient while many are unskilled and have to beg or sell tissues from table to table as a source of livelihood.

The fact is, every blind person wants to live independently. This group expects little understanding, awareness, and compassion—something that can afford to give. Many of them are capable and able to do good for themselves and also society in general. It can help them achieve this goal. By understanding their needs and extending support and assistance to these organizations, We are helping not only one or two of them but instead helping the entire visually impaired community in the country.

Therefore, we came up with the idea of the I-seeuWatch Bracelet. The I-seeuWatch Bracelet is a bracelet that doesn't need to be connected to an app on any smartphone because it works on its own for 24 hours non-stop. The I-seeuWatch bracelet app will work to help or assist the blind, but with the addition of a bracelet that can make it easier for them. The Bracelet can track and tell alerts by issuing a voice message and a notification sensor if any obstacles are in front of them, and it can monitor the user. Using this app, they need to ensure they are People with Disabilities (Blind) because this watch is designed for their suitability. The Bracelet has the potential to track them for 24 hours non-stop and has GPS equipment.

II. STATEMENT OF PROBLEM

From our research, only about 50,000 people are registered with the Malaysian Welfare Department, and it is believed that another 50,000 have not registered for certain reasons. Although this watch is reserved for them, they will think that it cannot help them or they are less confident about our product and will also definitely know less how to use it because they are unable to see. However, with this I-seeuWatch they should not worry because we put a voice message system that only requires users to speak towards the watch. Users do not have to worry about using it when out. It will send real-time notifications when users are in a crowded place or any location that could endanger them. Using this Bracelet, users must first fill in their personal information, including their location information and details of their family members, to get the right information

III. MATERIALS AND METHODS

A. About the Product I-seeuWatch

This product's speciality is providing a complete location and a sophisticated system in which they only need to talk, and the watch will guide them. The users only need to follow the instructions given by the watch system. Furthermore, the uniqueness of this i-seeuWatch can assist and facilitate OKU (blind) users by providing early warning. The areas are visited using sound sensors and provide a vibrate that its users will feel on their arms. Next, i-seeuWatch have provided complete GPS access on this watch, which will work automatically for 24 hours non-stop to track their whereabouts. The i-seeuWatch will send real-time notifications to users without requiring them to open the app. The goal of developing this product is to make it easier to use for blind users.

B. Product Specifications

- 1.5 CM wide, Adjustable wrist size weighing only 28g and 7.5mm thin.
- Material: The strap is made of silicone rubber and stainless steel.
- A rechargeable battery powers them.
- The function of the fingerprint on the Bracelet is to activate the watch.
- This Bracelet is connected to the I-seeuWatch application available on the user's smartphone, whether the user uses a smartphone that uses the ios or android system.

C. Special Criteria of I-seeuWatch Bracelets

- Easy
 - The design of this Bracelet is not complicated. The creators did not put many buttons to access or activate this product if the user wanted to use it. The user needs to put the finger on the fingerprint technology on the Bracelet.
- Lightweight
 - The weight of this product is 28g. The material used in this product is using lightweight silicone rubber, and the use of stainless steel on the bottom of the Bracelet is minimal.
- Easy to install
 - This product does not require special skills to use it. Just talk at that hour, and it will help them.
- Rechargeable
 - This Bracelet uses a rechargeable battery. This product only uses a charging system magnet where the user needs to place it on the magnetic charge, and it will automatically charge.
- User friendly
 - This Bracelet is user-friendly because it is very easy to use and can be worn anywhere, whether for sports or a walk. An attractive design makes this Bracelet comfortable to use at any time.



Fig.1 i-seeuWatch

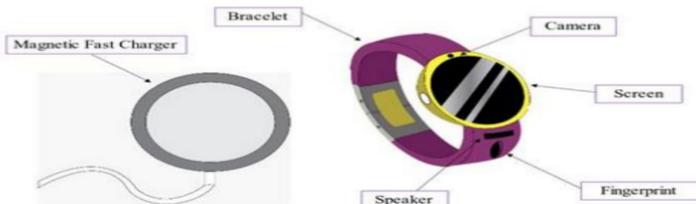


Fig.2 I-seeuWatch (Components)

IV. CONCLUSION

The I-seeuWatch bracelet is important for OKU (blind) users' needs, especially those with limited mobility due to vision problems. Consumers do not have to worry while leaving their homes with this product as this Bracelet can help them. This I-seeuWatch has the potential to be important in the market. It will help people with vision problems, especially in the future.

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