Smart Wallet for Blind People

Alkhatib, Noor (School: Al-Hoffaz Academy)
Alkhatib, Layla (School: Al-Hoffaz Academy)

People with special needs are part of society and represent a big portion. Those people need help in all life's aspects, and despite the numerous applications founded to facilitate their life. However, as lifestyle is notably changed recently it necessitates more facilities. Blind and low vision people for instance suffer from many situations such as theft, forgery, and locating their wallet when losing it, this is a big area of development as per the literature. Accordingly, this project aims to shed the light on this issue with those people and present a creative solution in an attempt to overcome the aforementioned issue besides forensics operations when needed. Particularly, this project proposes a "smart wallet for blind people" that tends to identify money using Color Sensor and identify cards using NFC (Near Field Communication), distinguishing counterfeited currencies by Uv Sensor, and locating the wallet in case of losing it. This solution employs a number of technologies including GPS to locate a wallet and an internal tracking system to verify this, we developed a prototype connected with mobile platforms. Results revealed the effectiveness of the proposed solution in many aspects including: - identify different cash currencies by determining their value. - Distinguish counterfeit currencies. - Identify different personal cards. - easily locate the wallet if the blind lose it. - facilitate finding the wallet inside the house. - Determine the value of cash currencies on a daily and monthly basis in the wallet application.

Awards Won: