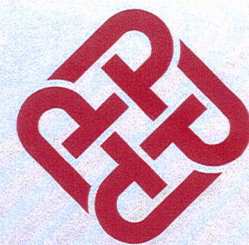


無線射頻識別技術

Radio Frequency Identification (RFID) Technologies



RF-eye

視障路標 - 聽得到的路標

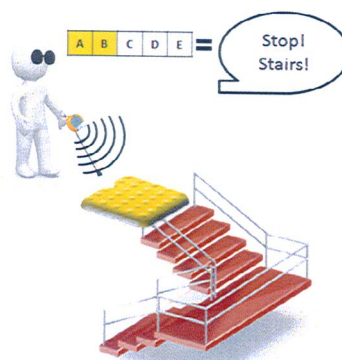
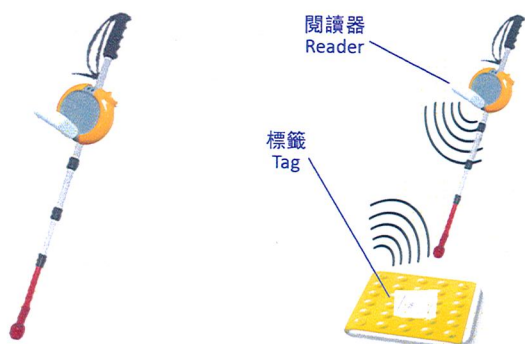
The sign for the blinds



項目簡介 Project Introduction

為了令視障人士易於外出，因此設計了RF-eye，結合了RFID和EPCglobal，令他們擁有聽得到的路標。“RF-eye”的組件包括標籤，一個可安裝在任何款式白手杖的閱讀器，處理器（智能手機）和一個藍牙耳機。安裝在引路徑下的標籤將儲存了所有地點的地理坐標。當閱讀器偵測到標籤，就會透過手機應用程式為視障人士作出定位。然後會在EPC Global上提取有關資訊。最後，經分析的資訊會傳送至手機並透過藍牙耳機告知用家。

RF-eye, our designed product with RFID and EPCglobal, which aims to help the visual disabled people to feel easy and convenient when they go out, is just like a road sign for them. The components of the “RF-eye” require the tag, a reader which can be installed on all the white cane, the processor (smart phone) and a blue-tooth earphone. The tag which stores the geographical coordinates of every point is embedded under the guiding path. Once it is detected, the reader will cooperate with the application (Apps) and define the current position of the user. It will then work with EPC Global and extract the relevant information. Finally, the analyzed information will be delivered to the apps and announced to the user via the blue-tooth earphone.

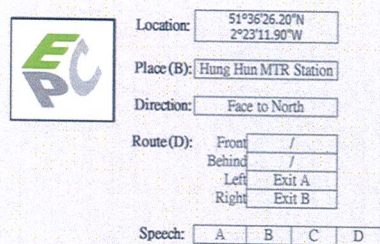


白杖上的RF-eye裝置
RF-eye Device on white cane

閱讀器偵測安裝在引路徑下的標籤
Reader detects the embedded RFID tag

閱讀器接收到危險資訊，便會提醒用家
When there is danger, it will alert the user

專為視障人士而設的互動應用程式畫面
Tailor-made App for the users



標籤內資訊儲存在EPC Global的資料庫
Information of tags store in database of EPC Global

資料傳送過程
Process of data transmission

特色及優點 Special Features and Advantages

- 不僅作為導航工具，更為視障人士建立一個無障礙環境。
- 比衛星導航提供的地理位置更精準。
- 可應用於室外或室內。
- 分析數據，了解視障人士常到的熱點，從而集中資源改善該處設施。
- To act as a navigation as well as a barrier-free environment for the visual impaired people
- To give more accurate information with less than estimated 0.01% error when compare to GPS
- To be applied to both outdoors and indoors
- To analyze the data visual disabled people usually visit collected in EPCglobal to improve the facilities there



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