Hide and Seek Help: Improved Key-Finder System for Visually Impaired People

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Searching for small items can be a difficult task for visually impaired people. A key-finder system was modified to notify the visually impaired person what item they would like to find and where the item is located. The receivers' circuits were modified to extend their functionalities to be able to record and reproduce any sound. Some electronic components were soldered to connectors before assembling. The designed circuits which provided new features were assembled on breadboards according to the technical specifications of the ISD1820 Voice Recorder Module and the TA7368P Toshiba amplifier chip. Fully assembled and tuned modified receivers are capable to record speech, music, and other audio messages with a maximum duration of 24 seconds. The assembled units were able to receive signals from the remote transmitter and play the recorded audio messages. The recorded sounds were heard at a distance up to 20 meters, since the sound was amplified by the Toshiba chip. The prototype of the modified key-finder system achieved the set goal. This system can be useful for visually impaired people, as well as for people with memory deficiencies.

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