Personal Automatic Medicine dispenser

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Abstract

Science project on personal automatic medicine dispenser. To design and construct a personal automatic medicine dispenser, an automatic medicine dispenser used in large hospitals has been adapted for personal use within households. The objectives are 1) To build a personal automatic medicine dispenser, 2) To ensure that patients take the right amount of medication as prescribed and 3) To maintain the medication history for the patients and relay this information to the patients' doctors. The process is divided into two main steps as defined below 1) design and construct a three-dimensional model of the medicine dispenser using a 3D printer, and then integrate medicine dispenser 2) Operating medicine dispensers and other automated applications by programming. Programming the medication container rotation system, followed by programming database system, application and Vacuum pickup system. The test is conducted by inputting simulated patient data into the database system and application.

The results of the test indicated that the automatic medicine dispenser enables patients to receive their medications correctly and on time as prescribed by doctors, without any mistakes in recording the patients' medication intake data. It also relays this information to the concerned doctors with 100% accuracy. The sample simulated patients included Mr. A, Mr. B, and Mr. C. Therefore, the personal automatic medicine dispenser greatly reduces the burden of recording medication information on patients and their caregivers. In addition, doctors can accurately and quickly check information on both the types and amounts of medication that patients take through the application.

Keywords: Vacuum pickup, Database system