Designing and Testing Safe-deposit Box Safety System Based on Android and Pi Raspberry

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ABSTRACT

Safe-Deposit Box is a place to keep valuable items, which needs to have a high-security system. The security system of the safe-deposit box consists of mechanical and digital security. The security system of the safe-deposit box is only located on the safe box side, such as the combination of several digits of number. By taking advantage of cutting edge technology, the security system of a safe-deposit box can be more guaranteed. In this research, the researcher elaborated the safe-deposit box consists of the Personal Identification Number (PIN) input and fingerprint identification. The security system records every access that can be monitored with the android web application. This system uses Raspberry Pi as the microcontroller and as a database server. This system also includes an LCD 16x2 inch as a screen to show status at the safe-deposit box and buzzer as an indicator. The testing results showed that safe deposit box system can be accessed with inputting Personal Identification Number (PIN) and Fingerprint identification, the status of the safe deposit box door, and the history of the access can be well monitored by using android web application.

Keywords: safe-deposit box, fingerprint, keypad, raspberry Pi, android.

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