

Live Demonstration : iMus - Intelligent Medication Use Solution

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I. COMPONENTS AND SETUP

Intelligent medication use solution, called iMUS for short, is designed for helping users to take medications correctly and safely, especially for outpatients without professional supervision. Its functions include storing and automatically locking drugs, saving history records, scheduling medications, avoiding medication misuse, and instructing medication dosage,...etc. Figure 1 shows exterior of iMUS.

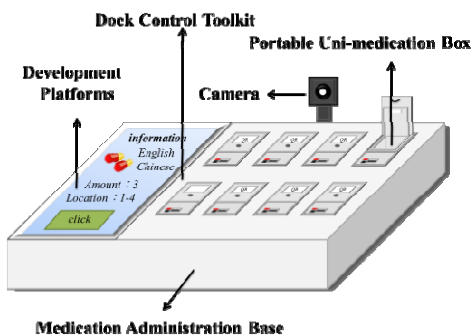


Figure 1 Architecture and Components

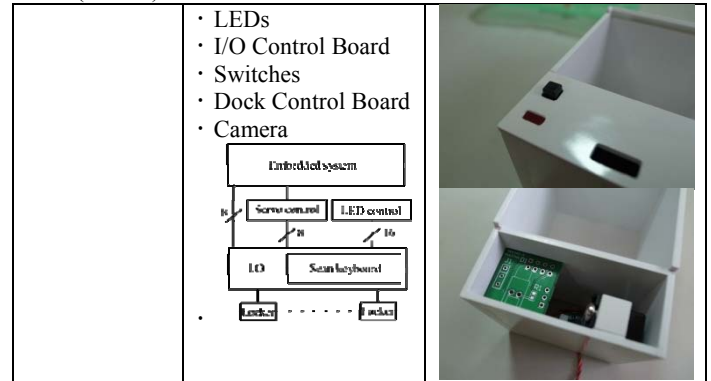
A. Features

- i. QR-code Analyzer: Check every medication QR-code information and set up medication scheduler.
- ii. Medication Scheduler: Alarm user to take the medication when time is up.
- iii. Storage Locker: Store and lock medication. After receiving user response of ready to take medication, the locker will unlock designated box and then flash LED to show user which one is unlocked.
- iv. Wifi Connect Server: Enhance identify function that can make sure user's medication is correct.

B. Technical Spec

Medication Administration Base (MAB)

Development Platforms	<ul style="list-style-type: none"> • Cortex T-A8(1GHz) • DDR2(1GB) • NANDFlash(256MB) • LCD Displayer(800*480) • Android (S3C6410) 	
Dock Control Toolkit	<ul style="list-style-type: none"> • Servo Control Board (Torobot 16&24) • Servo (GWS NARO Servo) • LED Control Board (FT245) 	



II. USE SCENARIO

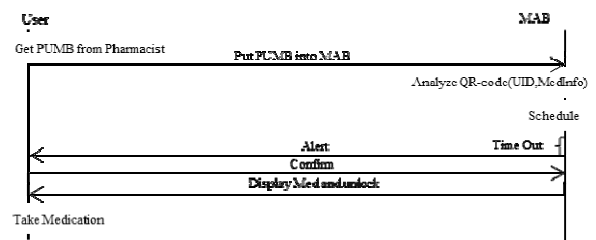


Figure 2 MAB Scenario

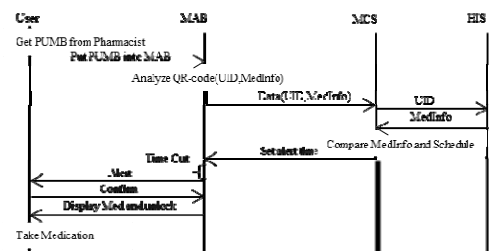


Figure 3 MAB connect MCS Scenario

III. REFERENCES

- [1]. P. C. Hsiu, H. C. Yeh, P. H. Tsai, C. S. Shih, D. H. Burkhardt, T. W. Kuo, J. W. S. Liu, T. Y. Huang, "A General Model for Medication Scheduling," Institute of Information Science, Academia Sinica, Taiwan, Technical Report TR-IIS-05-008, July 2005.
- [2]. P. H. Tsai, H. C. Yeh, P. C. Hsiu, C. S. Shih, T. W. Kuo, J. W. S. Liu, "A Scarce Resource Model for Medication Scheduling," Institute of Information Science, Academia Sinica, Taiwan, Technical Report TR-IIS-06-003, April 2006.