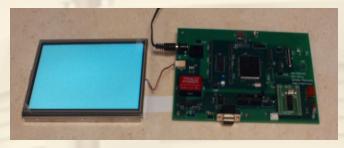


Abstract - The fitting room of the future

DIFR (Dynamic Information Field Receiver) will deliver a revolutionary touch-screen LCD unit which will be placed inside of apparel retailer fitting rooms. The prototype currently under construction is shown to the right. This device will give customers access to a store's inventory, including pricing and different sizes/colors. Their clothing items will be automatically scanned using Radio-Frequency Identification (RFID) technology, and product recommendations and specials will be offered to them based on their selections.

The device operates by allowing users to scan items tabulated with RFID tags and displaying relevant information pertaining to the specific items on an interactive touch-screen. The image to the right shows an example of a possible touch-screen interface system. The device is outfitted with a microSD card slot, allowing the device owner to easily upload a database of items.



Prototype Board

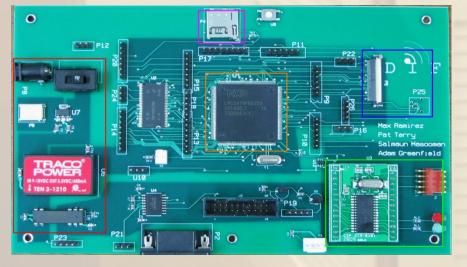


LCD Interface

Hardware Layout

microSD Slot

72MHz ARM7 Processor



7" Touch-screen LCD Controller

13.56MHz RFID Reader Module

Max Ramirez

Power System

Computer Engineering 805-323-6297 maximiliano@umail.ucsb.edu

Salmaun Masooman

Computer Engineering 805-403-2797 masooman@umail.ucsb.edu

Pat Terry

Electrical Engineering 805-260-5238 pwterry@umail.ucsb.edu

Adam Greenfield

Computer Engineering 805-350-1685 acidaris@sbceo.org