
Fingerprint and keypad based bank locker system

Biometrics studies commonly include fingerprint, face, iris, voice, signature and hand geometry recognition and verification. Many other modalities are in various stages of development and assessment. Among these available biometric traits Finger Print proves to be one of the best traits providing good mismatch ratio and also reliable. We can design multiple applications by integrating two different technologies viz. EMBEDDED SYSTEMS and BIOMETRICS. This Finger print based bank locker system is one those applications.



This module can operate in 2 modes i.e., Master mode and User mode. We will be using Master mode to register the fingerprints which will be stored in the ROM present on the scanner with a unique id. In user mode we will be verifying the scanned images with the stored images.

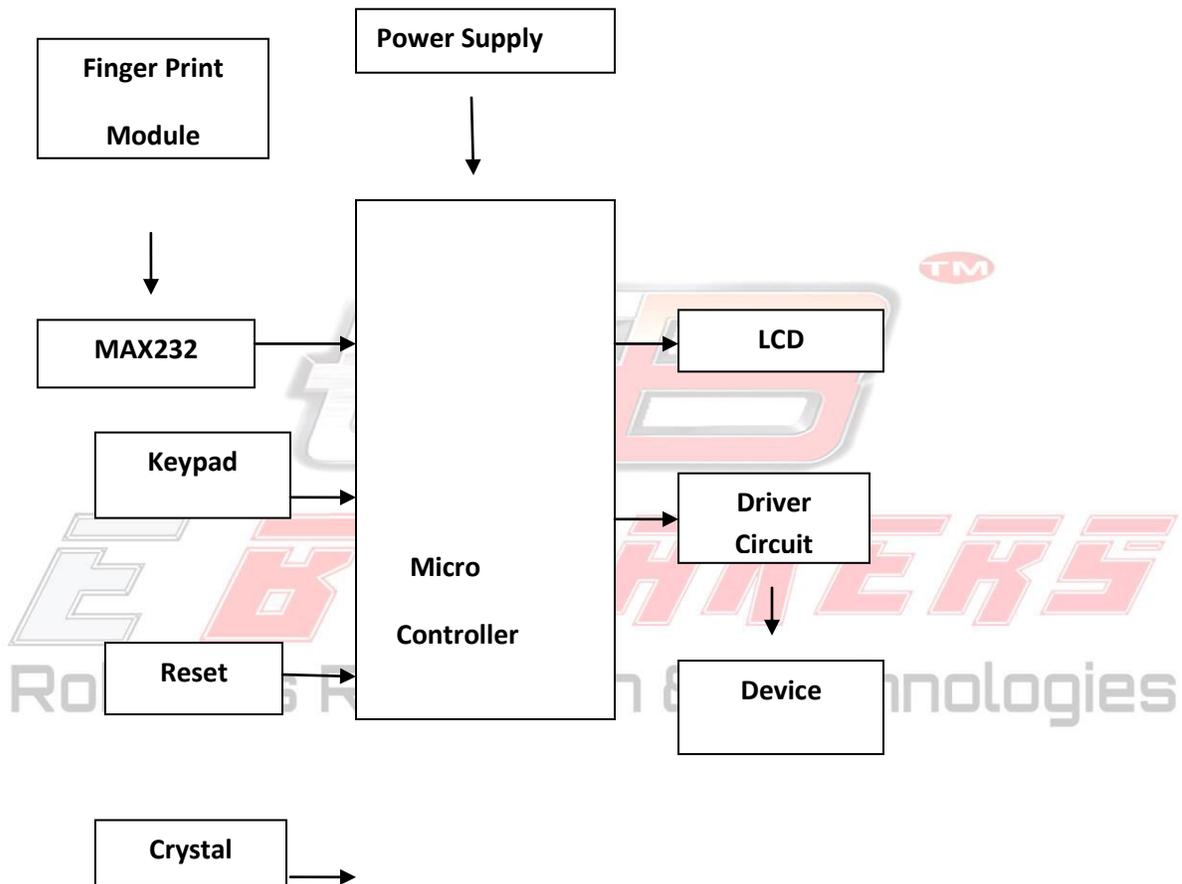
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Our application the image of the consulting persons belongs to bank lockers will be read initially in master mode. Then scanner is interfaced with microcontroller through max232 in user mode. By using this controller, we will be controlling the scanning process. After the scanning has been completed, the result is stored in the microcontroller will be compared with images stored in the module if both are matches then it allows that person to access the locker, otherwise it will never allow them. Then status of the person will be displayed on LCD.

In this prototype model step-down power supply circuit is used. First from 230Volts AC is converted as 12V AC by using a step-down transformer. Then a 1000uf capacitor is used to convert it to

pure 12V DC. 7805 will convert the 12V DC supply to 5V DC along with a 100uf capacitor. This 5V DC is used for all components like microcontroller, inputs and outputs.

Block Diagram:



Hard Ware Requirements:

- Micro controller
- Finger Print module
- MAX232
- LCD display
- Power Supply

Software requirements:

- Keil Compiler
- Embedded 'C'

