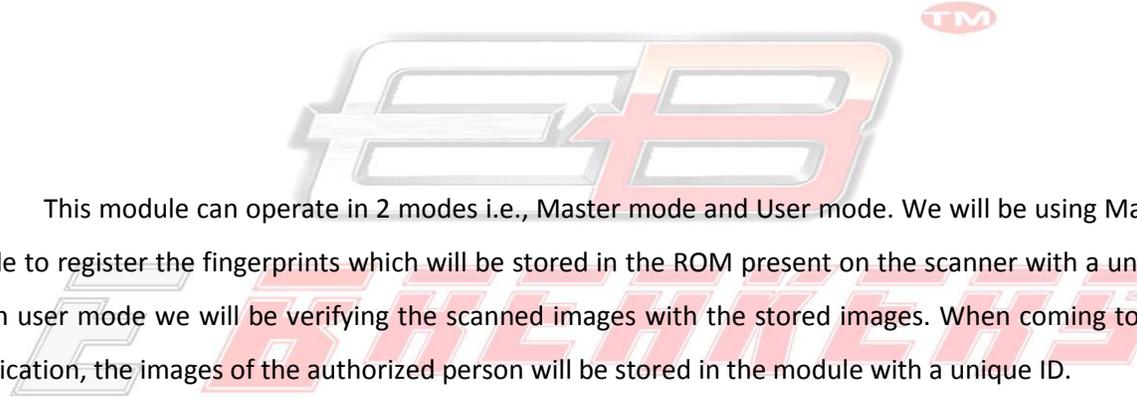

Fingerprint Based Physical Access Control Vehicle Immobilizer

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 provide high standard security to particular room by using finger prints this project, for this we are taking the help of two different technologies viz. EMBEDDED SYSTEMS and BIOMETRICS.



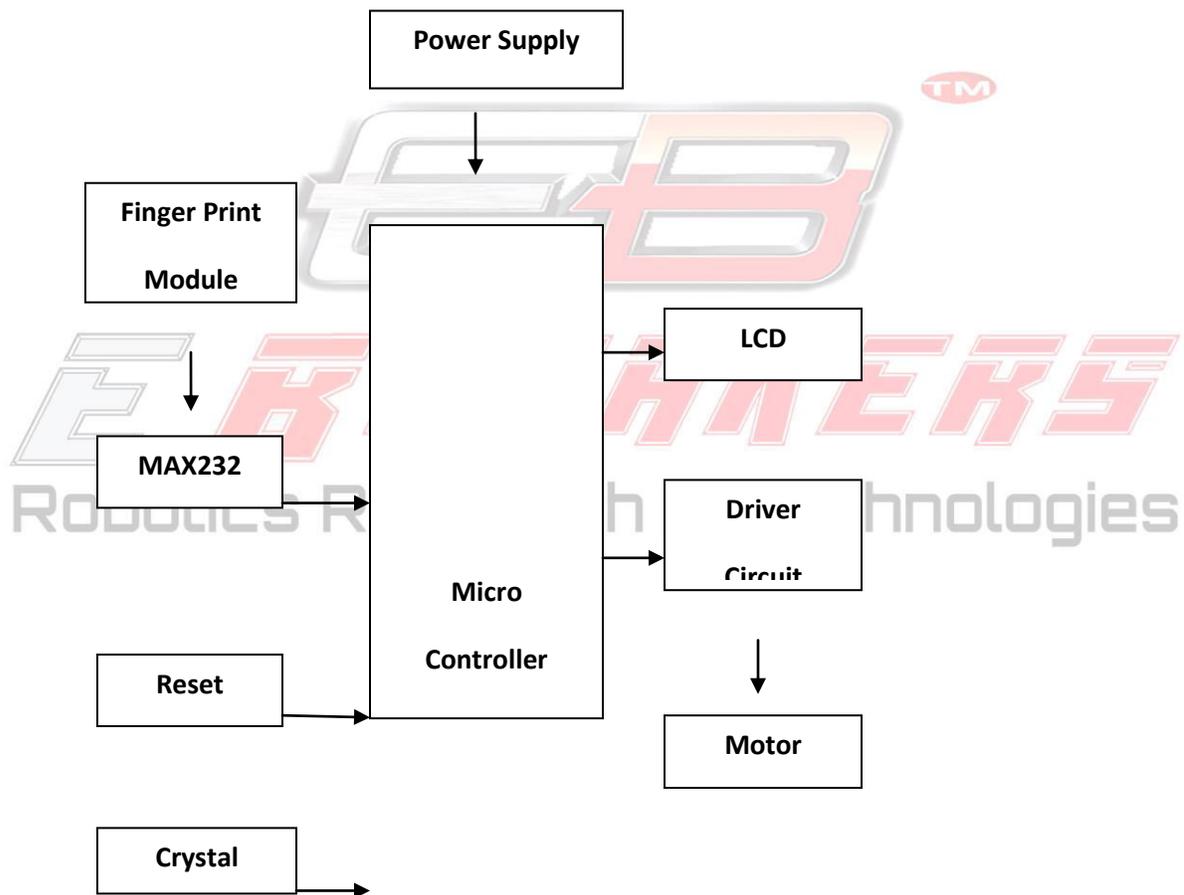
This module can operate in 2 modes i.e., Master mode and User mode. We will be using Master mode to register the fingerprints which will be stored in the ROM present on the scanner with a unique id. In user mode we will be verifying the scanned images with the stored images. When coming to our application,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

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Initially we will take the finger prints of the authorized people to access the room in master of the scanner and 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 compared with the images stored in the ROM of the scanner and if both are matches it allows that person to access that room otherwise it will never open the door forever.

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:



Requirements:

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

Software Requirements:

- Keil Compiler
- Embedded C



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