

Designing of Haptic keypad with magnetic door lock system

The project aims in designing a security door locking/unlocking system through a haptic based keypad. Also, the door locking is made using a magnetic lock. This helps in avoiding unauthorized entry.

Haptic provide fast access to any and all types of digital media, with no text-bound interface getting in the way. Faster input can mean better service. Using a touch interface can effectively increase operator accuracy, reduce training time, and improve overall operational efficiencies, a properly designed touch interface can improve each operator's accuracy. Haptic are practical in automation, which has become even simpler with touch screen technology. Owners familiar with the icon system appreciate haptic that make automation systems user friendly.

The intelligent device which performs the task is a Microcontroller. Haptic keypad, magnetic door lock system is interfaced to Microcontroller. The Microcontroller continuously monitors the haptic input and locks/unlocks the magnetic door system when valid password is given. The status of door is displayed on LCD. The Microcontroller is loaded with intelligent program written using embedded 'C' language.

The objectives of the project include:

1. Secure access through Haptic based keypad.
2. Magnetic door lock system.
3. Low power consumption based system.

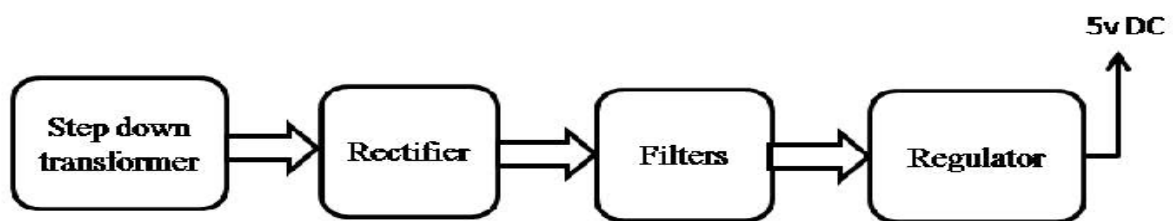
The major building blocks of this project are:

1. Regulated Power Supply
2. Micro Controller.
3. Haptic sensor.
4. Magnetic door lock system.
5. LCD with driver.
6. Reset.
7. Crystal oscillator
8. LED indicators.

Software's used:

1. PIC-C compiler for Embedded C programming.
2. PIC kit 2 programmer for dumping code into Microcontroller.
3. Express SCH for Circuit design.
4. Proteus for hardware simulation.

Regulated power supply:



Block diagram:

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