IMAGE BASED PASSWORD AUTHENTICATION FOR ILLITERATES WITH TOUCH SCREEN

The project aims in developing a system which is very helpful for illiterates in secure accessing, who are not able to remember passwords. Image based password authentication for illiterates with touch screen interfacing provides an image based security system, which can be installed in poultry forms, houses and all kinds of domestic and industrial applications. The main aim of this project is to provide a security system for illiterates. This system provides user-friendly environment for the users with a kind of image interaction. Here the password need not be a string of characters it can use few images; this may be easy for the illiterates to remember. This device makes use of a touch screen sensor based graphical LCD which makes the things still easier. This project gives us the exposure about how to efficiently make use of the touch screen technology to interface with the appliances in our practical life. It can also be operated very easily with the hand so can be used even by very old people and also by the illiterates.

Touch screens 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, thus keeping costs down, a properly designed touch interface can improve each operator's accuracy. Touch screens are practical in automation, which has become even simpler with touch screen technology. Owners familiar with the icon system appreciate touch screens that make automation systems user friendly.

In this project we make use of an onboard computer which has many input and output ports. This Onboard computer is also termed as micro controller. All the input and the output modules are interfaced with this control unit. The image input from the graphical LCD is processed by the controller and provides access to the user if the password received is correct

The main features of this project are:

1. User-friendly interaction with the user.
2. Highly sensitive.
3. Reliable for illiterates.
4. Easy to install.

This project provides learning's on the fallowing advancements:

1. Touch Screen Sensor.
2. Interfacing touch screen to Microcontroller.
3. Conversion of AC supply to DC supply.
4. Graphical LCD.
5. Embedded C programming.
6. PCB design.

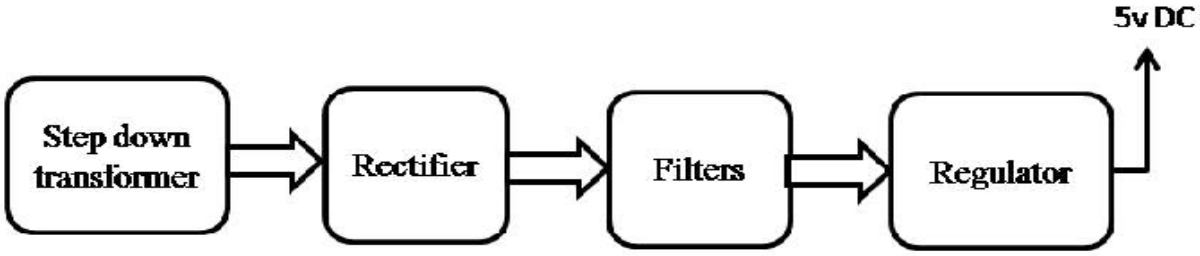
The major building blocks of this project are:

1. Regulated power supply.
2. Micro controller
3. Touch screen sensor with driver.
4. Graphical LCD with driver.
5. Stepper motor with driver.
6. Crystal oscillators.
7. Reset.
8. LED indicators.

Software's used:

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

Regulated Power Supply:



Block diagram:

Image based password authentication for Illiterates with Touch screen