# Home appliances controlling using resistive touchscreen

The project mainly aims in designing completely automated switch board with the help of touch screen sensor to control the house hold appliances and also provide a user friendly environment of the user to operate the devices effectively. It majorly aims in providing a reliable system for illiterates and old people who finds difficulty in operating few high end devices like AC, water heaters etc.

Automation is the most frequently spelled term in the field of electronics. The hunger for automation brought many revolutions in the existing technologies. One among the technologies, which had greater developments, is the touch screen sensor. These had greater importance than any other technologies due to its user-friendly nature. Touch screen based devices can be easily reachable to the common man due to its simpler operation, and at the same time it challenges the designers of the device. These touch screen sensors can be used as a replacement of the existing switches in home which produces sparks and also results in fire accidents in few situations. Considering the advantages of touch screen sensors an advanced automation system was developed to control the appliances in the house.

The device consists of a microcontroller, which is interfaced with the input and output modules, the controller acts as an intermediate medium between both of them. So the controller can be termed as a control unit. The input module is a touch screen sensor, which takes the input from the user and fed it to the microcontroller. The output module is the appliances to be controlled. Here the microcontroller receives the input from the touch sensor and switches the device with respect to the input.

**Features:**

1. Touch screen based user-friendly interfacing.
2. Low power consumption.
3. Controls high and low voltage devices.
4. Long life.
5. Highly sensitive.

**Applications:**

1. In industrial environment where combustibles are used.
2. For house hold automations.

**This project provides exposure to the following technologies:**

1. Touch screen sensor.
2. Interfacing sensor and microcontroller.
3. Embedded C programming for microcontroller.
4. Design of PCB.

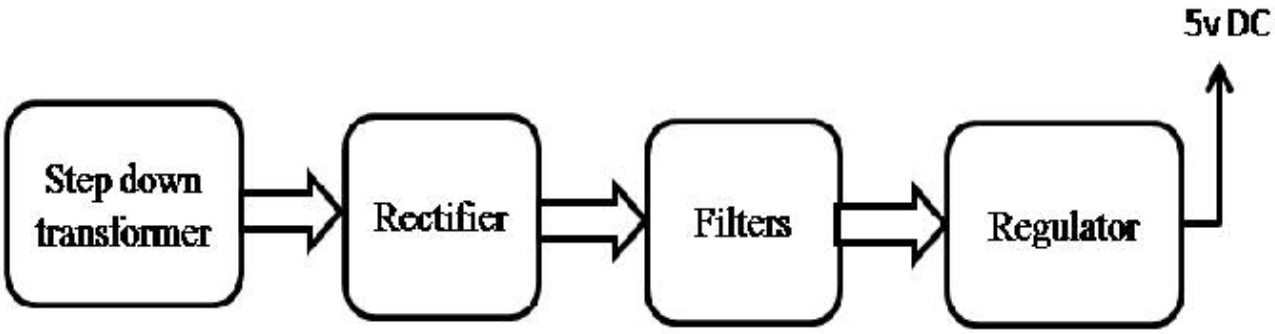
**The major building blocks of this project are:**

1. Regulated power supply with voltage regulator.
2. Touch screen sensor.
3. Microcontroller
4. Appliances to be controlled

**Software tools:**

1. **PIC-C compiler** for programming.
2. **PIC kit 2** programmer for dumping code into Microcontroller.

## Regulated power supply:



**Block diagram:**

# Home appliances controlling using resistive touchscreen