

Title of the project	:	Embedded Voting System using PIC16F877A Microcontroller
Domain	:	Embedded Systems Design
Software	:	Embedded C
Microcontroller	:	PIC16F877A
Power Supply	:	+5V, 500mA Regulated Power Supply
Display	:	a) LCD b) LED
LCD	:	HD44780 16-character, 2-line (16X2)
LED	:	5mm White-in-Red, 5mm White-in-Blue
Input	:	4-pin micro-switch
Technical support	:	M/S Wine Yard Technologies
Phone	:	040-64 64 63 63, www.WineYardProjects.com

ABSTRACT

The Project Embedded Voting System using PIC16F877A Microcontroller is an interesting project which uses PIC16F877A microcontroller as its brain. The project is designed for four contestants. Voters can poll their vote to any one of the contestant.

The PIC16F877A microcontroller contains four ports of each eight pins. In this project one port is dedicated for micro switches for four contestants, polling officer and counting officer. 6 LEDs are connected to indicate the switch bounce conditions. A simple yet powerful program is written in assembly language and burned into the microcontroller to accept votes and to count total votes polled.

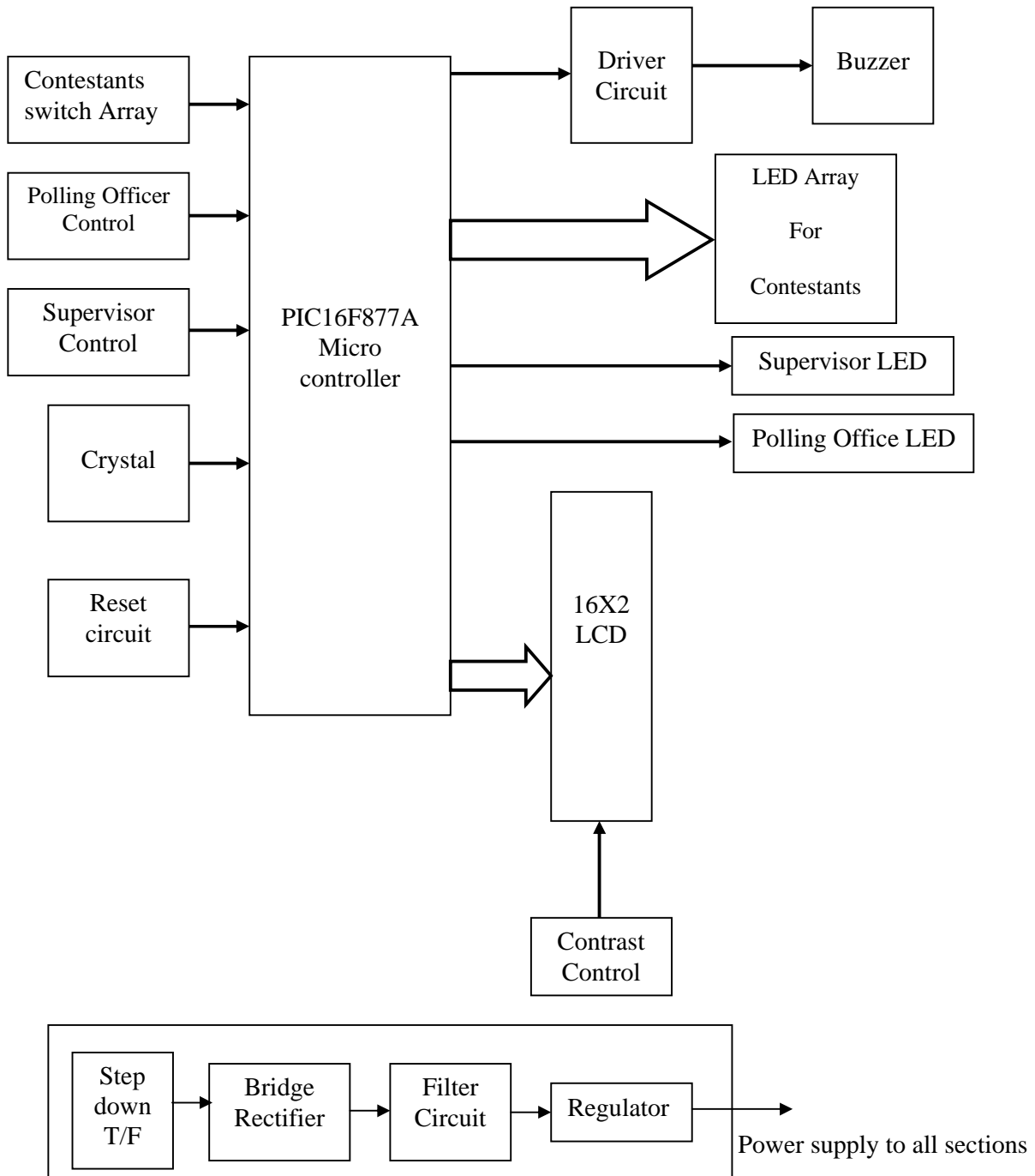
Polling officer switch is provided to avoid multiple polling of single voter. Every voter should get approval from the polling officer. If the polling officer issues approval with his control switch, then only a voter can poll his vote. This issuance of approval is indicated by an LED.

Counting Officer Switch is provided to count and display the total number of votes polled and individual contestant-wise votes polled. If this switch is pressed, the polling process can not continue.

A buzzer is provided for audio effect of switch bounce. Whenever a switch is bounced, the system acknowledges the bounce by a short beep sound. This buzzer is driven by an NPN transistor.

This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac out put of secondary of 230/12V step down transformer.

BLOCK DIAGRAM



Block diagram: Embedded Voting System using 89C51 Microcontroller