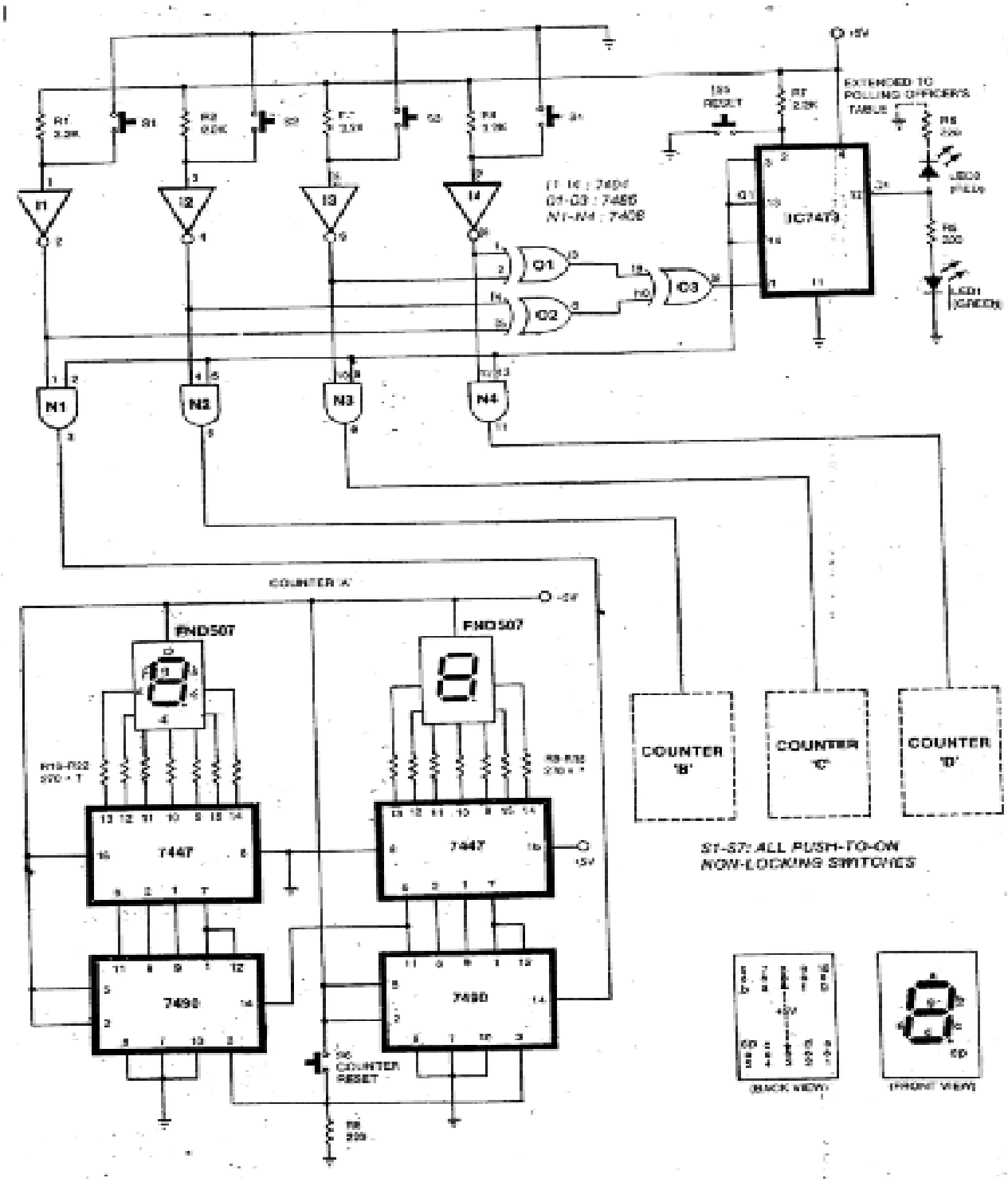
# MINI ELECTRONIC VOTING MACHINE

## INTRODUCTION

EVM stands for Electronics Voting Machine. It's a lot different from the traditional ballot paper system both in terms of mechanism and performance. Its USP is its simple user interface. Even a person who never got a chance to go to schools can use it without much difficulty. The front panel shows all the candidates standing for the election along with their party symbols. There is a button corresponding to each of the candidates. To cast a vote just press the button beside to the candidate. A successful vote is indicated by a green light and a short beep.

There is a dedicated counter for each of the candidate ,which is placed inside. With each vote the counter corresponding to the candidate increases and is displayed through a LCD screen. This arrangement is kept under lock. After the election's over the polling officer can open the lock and view the votes and declare the result

# CIRCUIT DIAGRAM



# CIRCUIT DESCRIPTION

- SWITCH s1 to s4 are the four push –to-on type non locking switches. One for each candidate. vote casting is done by just pressing a corresponding switch.
- LED1 glows to indicate to the voter that his vote has been cast (recording).
- XORGATE (IC7486) prevents the votes can be cast two buttons are pressed simultaneously.
- IC7473 locks self once a vote has been cast and thus prevents multiple votes by a person. It simultaneously lights LED2 at polling officer's table. Pin 13 of IC7473 goes 'low' as soon as a 'valid' vote recorded.
- This in turn blocks all AND gate to avoid further counting of votes till the officer in charge reset the system through switch S7 at his table.
- Resetting of S7 should be done only when the voter has come out of the both after casting his vote.
- The counting of votes is carried out by the counters wired using IC 7490.Only 'unit' and 'tens' positions are shown.
- Depending on the number of voters expected the hundredth and the thousandth positions can also be wired.
- The votes corresponding to S1-S4 are counted by counters C1-C4, respectively.
- Switch S6 must be keep under a lock and key arrangement.
- It should be reset before the voting starts and should not be disturbed there after till the voting is over and the results have been declare.
- Counters will store the digits as far as supply continues without failure.
- So on interrupted +5V supply derived from a battery is advisable.
- This machine can be used in school , college election.

# ❖ COMPONENT LIST

- **IC (INTERGRATER CIRCUIT):-**
  1. IC 7404.
  2. IC 7486.
  3. IC 7408.
  4. IC 7473.
  5. IC 7447.
  6. IC 7490.

- **SWITCH:-**
  S1 - S6 PUSH –TO-ON NON BLOKING SWITCHES.

- **RESISTOR:-**
  R1 - R4 , R7 -2.2KΩ.
  R5, R6, R8:- 220Ω.
  R9 – R22 :- 270Ω.

- **LED(LIGHT EMITTING DIODE):-**
  RED LED.
  GREEN LED.

- **DISPLAY:-**
  FND 507 SEVEN SEGMENT DISPLAY.

## ➢ ADVANTAGES :-

1. Simple user interface.
2. Less cost
3. Quick results
4. Fair elections
5. Tamperproof

## ➢ DISADVANTAGES :-

1. Limited no. of candidates.
2. More candidates mean implies complicated circuit.

## ➢ APPLICATIONS :-

1.It is used in general elections for choosing candidates to represent people at various stages.
2. It can be used in school ,college student union elections.
3. It can be used to find the general opinion of people on various issues.
4. Anywhere where majority opinion is to be found out

## ➢ CONCLUSION:-

The Electronic voting machine helped the voter to cast his vote in a hassle free manner and for the poling officer it proved to be a more convenient way to count the votes and declare the result.

## ➢ REFERENCE:-


1) **WWW.PROJECT.COM**
2) **WWW.DATASHEET.COM**
3) **WWW.DETAIL OF RESISTOR.COM**
4) **WWW.DETAIL OF SWITCH.COM**
5) **WWW. DETIL OF LED.COM**
6) **WWW.EFY.COM**
7) **VOLUME SIX**