setup jump addresses: e.g.,

Interrupt	Address
IE0	0003
TF0	000B
IE1	0013
TF1	001B
SERIAL	0023

```
        ORG     0000h
        ajmp    MainProg

        ORG     0bh  ;TF0 jump addr
       ....all instructions must fit within 8 bytes

        ajmp    ISRTF0
```

main program

```
        ORG     0100h
MainProg:
          ... initialize the display out of RESET
          ... selective active register bank
          ... configure TMOD
          mov   TMOD, #11h              ;set mode-1 for timer-0 and timer-1

;initialize with a starting number
        mov     TH0,   #0E0h
        mov     TL0,    #0C0h
        setb    TR0 ... enable interrupts e.g.,
        setb    EA      ;enable interrupts
        setb    ET0     ;enable TF0
        .... set up the starting RAM location of SP e.g.,
        mov     SP,  #35h
        ... any other necessary instructions to configure 8051
wait:
        nop
        sjmp  wait   ;mainline program waits here end of the main program

ISRTF0:
       ... protect the critical region and reinitialize Timer_0
       …reload-value = FFFF - target_count + offset
       clr      EA
       mov      TH1,     #3Ch
       mov      TL0,     #0AFh ; count from 15535 to 65535 for 50 msec
       seb      EA
       reti     ;can have more than one return
       END      ;end directive
```