jmp main ;jump past interrupt vector

org 0x30 ;start at RAM location 0x30

;--+ configuration section +--

main:

mov p1, #0x00 ;set p1 as output

mov TMOD, #0x10 ;set Timer1 to mode 1

;--+ main program section +--

mainLoop:

call checkInput

call Delay

mov p1, #0xFF ;LEDs on

call checkInput

call Delay

mov p1, #0x00 ;LEDs off

jmp mainLoop

;--+ checkInput subroutine +--

checkInput:

mov r7, p0 ;read switch positions into r7

cjne r7, #0xFC, not0 ;if switch value is not FC jump to the label not0

mov r5, #5 ;r5 has the value of #10

jmp goback

not0:

cjne r7, #0xFD, not1 ;if switch value is not FD jump to the label not1

mov r5, #10 ;r5 has the value of #20

jmp goback

not1:

cjne r7, #0xFE, not2 ;if switch value is not FE jump to the label not2

mov r5, #20 ;r5 has the value of #40

jmp goback

not2:

mov r5, #40 ;r5 has the value of #90

goback:

ret ;return from subroutine

;--+ Delay subroutine+--

Delay:

mov TH1, #0x3C ;set high byte = 3C

mov TL1, #0xAF ;set low byte = AF

setb TR1

Wait:

jnb TF1, Wait

clr TR1 ;stop timer

clr TF1 ;clear timer flag

djnz r5, Delay

ret ;return from subroutine

end