# LED NHẤP NHÁY

```
    ORG 0000H
    MAIN:
//sang tu led1 den led8
        MOV P1,#00000001B
        CALL DELAY
        MOV P1,#00000011B
        CALL DELAY
        MOV P1,#00000111B
        CALL DELAY
        MOV P1,#00001111B
        CALL DELAY
        MOV P1,#00011111B
        CALL DELAY
        MOV P1,#00111111B
        CALL DELAY
        MOV P1,#01111111B
        CALL DELAY
        MOV P1,#0FFH
        CALL DELAY
//off led 1 den led 8
        MOV P1,#11111110B
        CALL DELAY
        MOV P1,#11111100B
        CALL DELAY
        MOV P1,#11111000B
        CALL DELAY
        MOV P1,#11110000B
        CALL DELAY
        MOV P1,#11100000B
        CALL DELAY
        MOV P1,#11000000B
        CALL DELAY
        MOV P1,#10000000B
        CALL DELAY
        MOV P1,#00H
        CALL DELAY
//SANG TU LED 8 DEN LED 1
    MOV P1,#10000000B
    CALL DELAY
    MOV P1,#11000000B
    CALL DELAY
    MOV P1,#11100000B
    CALL DELAY
    MOV P1,#11110000B
    CALL DELAY
    MOV P1,#11111000B
    CALL DELAY
    MOV P1,#11111100B
    CALL DELAY
    MOV P1,#11111110B
    CALL DELAY
    MOV P1,#0FFH
    CALL DELAY
//TAT LED 8 DEN LED 1
    MOV P1,#01111111B
    CALL DELAY
    MOV P1,#00111111B
    CALL DELAY
    MOV P1,#00011111B
    CALL DELAY
    MOV P1,#00001111B
    CALL DELAY
    MOV P1,#00000111B
    CALL DELAY
    MOV P1,#00000011B
    CALL DELAY
    MOV P1,#00000001B
    CALL DELAY
    MOV P1,#00H
    CALL DELAY
JMP MAIN
DELAY:
    MOV R1,#5
LAP1:
    MOV R2,#100
LAP2:
    MOV R3,#200
    DJNZ R3,$
    DJNZ R2,LAP2
    DJNZ R1,LAP1
RET
END
```

TẠO KHOẢNG THỜI GIAN CHỜ LÀ 50MS ĐỐI VỚI THẠCH ANH 12MHz

```
org 00h

main:
    mov tmod,#01h

loop:
    CPL P1.0
    ACALL DELAY50mS
    jmp loop

DELAY50mS:
    MOV R0,#50

DELAY1mS:
        MOV TH0,#0FCh   ;65536-1000
        MOV TL0,#18h
        SETB TR0
        JNB TF0,$
        CLR TR0
        CLR TF0
        DJNZ R0,DELAY1mS
    RET
END
```

TẠO KHOẢNG THỜI GIAN CHỜ LÀ 50MS ĐỐI VỚI THẠCH ANH 24MHz

```
org 00h

    main:
        mov tmod,#01h

    loop:
        CPL P1.0
        CALL DELAY50mS
        jmp loop
    DELAY50mS:
    MOV R0,#50

    DELAY1mS:
        MOV TH0,#0F8h   ;65536-2000
        MOV TL0,#30h
        SETB TR0
        JNB TF0,$
        CLR TR0
        CLR TF0
        DJNZ R0,DELAY1mS
    RET
END
```

# ĐẾM 00 – 59

```
org 00h
    LJMP MAIN
    ORG 30H
    MAIN:
    CALL CT0059
    JMP MAIN
CT0059:
    MOV R0,#00
LAP:
    CALL CTHT
    INC R0
    CJNE R0,#60,LAP
    RET

CTHT:
    MOV DPTR,#MALED
    MOV R1,#60
    QUET:
        MOV A,R0
        MOV B,#10
        DIV AB
        MOVC A,@A+DPTR
        MOV P2,A
        SETB P3.0
        CALL DELAY
        CLR P3.0
        MOV A,B
        MOVC A,@A+DPTR
        MOV P2,A
        SETB P3.1
        CALL DELAY
        CLR P3.1
        DJNZ R1,QUET
    RET
```

```
DELAY:
    MOV TMOD,#01H
    MOV TH0,#HIGH(-5000)
    MOV TL0,#LOW(-5000)
    SETB TR0
    JNB TF0,$
    CLR TR0
    CLR TF0
RET

MALED:
    DB 0C0H,0F9H,0A4H,0B0H,99H,92H,82H,0F8H,80H,90H
end
```

# LED ĐƠN 7 ĐOẠN

```
ORG 00H
    MOV DPTR,#MALED
reset:
    mov R0,#9
main:
    MOV A,R0
    MOVC A,@A+DPTR
    MOV P0,A
    jb P2.7,$
    jnb P2.7,$
    dec R0
    CJNE R0,#0,main
    jmp reset

MALED:
    DB 0C0H,0F9H,0A4H,0B0H,99H,92H,82H,0F8H,80H,90H

END
```