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; File : Blink.asm

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; Description : Blink LED with 100mSec delay for MicroConverter DEMO

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$MOD845 ; Use 8052 predefined Symbols

CSEG ; Defines the following as a segment of code

ORG 0000H ; Load Code at '0'

JMP MAIN ; Jump to MAIN

ORG 004Bh ; Subroutines

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DELAY: ; Delays by \* A

MOV R0,A ; Acc holds delay variable

DLY0: MOV R1,#019h ; Set up delay loop0

DLY1: MOV R2,#0FEh ; Set up delay loop1

DJNZ R2,$ ; Dec R2 & Jump here until R2 is 0

DJNZ R1,DLY1 ; Dec R1 & Jump DLY1 until R1 is 0

DJNZ R0,DLY0 ; Dec R0 & Jump DLY0 until R0 is 0

RET ; Return from subroutine

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MAIN: ; (main program)

MOV A,#20H ; Set up delay = A\*100mSecs on 12 cycle core

BLINK: CPL P3.4 ; blink LED using compliment instruction

CALL DELAY ; Call Software delay 100mS

JMP BLINK ; Jump to Blink

END