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;

; Author : ADI - Apps www.analog.com/MicroConverter

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; Date : October 2003

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; File : blink.asm

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; Hardware : ADuC842/ADuC843

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; Description : Blinks LED continuously.

; 200mSec period @ 50% duty cycle.

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$MOD842 ; use 8052 predefined symbols

LED EQU P3.4 ; P3.4 is red LED on eval board

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; MAIN PROGRAM

CSEG

ORG 0000h

MOV A,#010

BLINK: CPL LED ; flash (complement) the red LED

CALL DELAY ; call software delay

JMP BLINK ; repeat indefinately

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; SUBROUTINES

DELAY: ; Delays by ms 10\* A

; 10mSec based on 2.094MHZ

; Core Clock

; i.e. default ADuC842 Clock

MOV R1,A ; Acc holds delay variable (1 clock)

DLY0: MOV R2,#01Bh ; Set up delay loop0 (2 clocks)

DLY1: MOV R3,#0FFh ; Set up delay loop1 (2 clocks)

DJNZ R3,$ ; Dec R3 & Jump here until R3 is 0 (3 clocks)

DJNZ R2,DLY1 ; Dec R2 & Jump DLY1 until R2 is 0 (3 clocks)

DJNZ R1,DLY0 ; Dec R1 & Jump DLY0 until R1 is 0 (3 clocks)

RET ; Return from subroutine

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END