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; Author : ADI - Apps

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; File : Tim2\_AR.asm

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; Hardware : ADuC814

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; Description : Flashes light every 256\*56 machine cycles (@ 4Hz

; for core freq = 2.097152MHz) using timer 2 in Auto

; Reload Mode.

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$MOD814 ;Use 8052 predefined Symbols

LED EQU P3.3

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; BEGINNING OF CODE

CSEG

ORG 0000H

JMP MAIN

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; TIMER 2 INTERRUPT ROUTINE

ORG 002Bh

CPL LED ; Flash the light

CLR TF2 ; The TF2 flag must be cleared in software

RETI

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; MAIN PROGRAM

ORG 0060h ; Start code at address above interrupts

MAIN: ; Main program

SETB ET2 ; Enable timer2 interrupt

MOV TL2, #00h ; Initialise timer 2 registers & Reload

MOV TH2, #0C9h ; values to rollover every 55\*256

MOV RCAP2L, #00h ; machine cycles (17.47us)

MOV RCAP2H, #0C8h

SETB EA ; Enable interrupts

MOV T2CON, #04h ; Start timer 2 in 16-bit reload mode

JMP $ ; Wait here for timer Interrupts

END