```
#include <msp430.h>

#define LED_PIN BIT0  // Define the LED pin (P1.0)

void register_settings_for_TIMER0()
{
    P1DIR |= LED_PIN;     // LED_PIN as output
    P1SEL |= LED_PIN;     // Select Timer Output

    CCR0 = 255;           // Set Timer0 PWM Period Compare
Control Register 1
    CCTL1 = OUTMOD_7;     // Set TA0.1 Waveform Mode - Clear on
Compare, Set on Overflow
    CCR1 = 0;             // Set TA0.1 PWM duty cycle
    CCTL0 = CCIE;         // CCR0 Enable Interrupt
    TACTL = TASSEL_2 + MC_1;  // Timer Clock -> SMCLK, Mode -> Up
Count
}

void main(void) {
    WDTCTL = WDTPW | WDTHOLD;  // Stop watchdog timer

    register_settings_for_TIMER0();

    __bis_SR_register(GIE);  // Enable CPU Interrupt

    while (1) {
    }
}

#pragma vector = TIMER0_A0_VECTOR     //This line defines an
interrupt service
__interrupt void Timer_A(void) {
    CCR1 = CCR1 + 1;  // Increment CCR1
    if (CCR1 == 256) {
        CCR1 = 0;
    }
}
```