```c
/**
 * MECH 458 - Lab 4A - PWM
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 */

#include <asf.h>
#include <avr/io.h>
#include <avr/interrupt.h>

int main (int argc, char *argv[]) {
    CLKPR = 0b10000000;                 /* Modify prescale lock bit */
    CLKPR = 0b00000000;                 /* Reset prescaler to 1 (8MHz clock)
      */

    DDRB = 0b11111111;                  /* Set all of Port B to output bits,
      OC0A outputs to PB7 */
    DDRC = 0b11111111;                  /* Set all of Port C to output bits,
      for debugging */

    TCCR0A |= _BV(WGM01) | _BV(WGM00);  /* Set timer/counter 0 to fast PWM
      mode */
    TIMSK0 |= _BV(OCIE0A);              /* Enable timer/counter 0 Compare
      Match A interrupt */
    TCCR0A |= _BV(COM0A1);              /* Set timer/counter 0 to clear OC0A
      on Compare Match, set OC0A at TOP */
    TCCR0B |= _BV(CS01) | _BV(CS00);    /* Set timer/counter 0 to take system
      clock with prescaler = 64 */
    OCR0A = 0b10000000;                 /* Set output compare register to be
      half of total (50% duty cycle) */

    while (1) {
        /* Nothing should happen */
    } /* while */

    return(0);
}/* main */
```