/\* File: pwm8bits.c

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\* PWM pin 13, mark space ratio is 8 bit (255) and the PWM frequency

\* is 610 Hz PWM Period = (PR2+1)x4 x 1/Osc x TMR2 Prescaler

\* e.g (255+1)x4 x1/10Mhz x 16 =1.638ms or 610Hz.PR2 changes frequency.

\* The 8 bit markspace ratio is stored in CCPR1L

\*/

#include <xc.h>

#include <stdio.h>

#include <stdlib.h>

#pragma config OSC = HS //high speed resonator

#pragma config WDT = OFF //watchdog timer off

#pragma config LVP = OFF //low voltage programming disabled

#pragma config PWRT = ON //power up timer on

int main(void)

{

int markspace=127; //mark space value for PWM (50% mark space ratio)

TRISC= 0b00111001; //set CCP1(RC1) and CCP2(RC2) as outputs

PR2 = 0b11111111 ; //set period of PWM

T2CON = 0b00000111 ; //Timer 2(TMR2) on, Prescaler = 16

CCP1CON = 0b00001100; //0b00001100 enables PWM module CCP1

CCPR1L = markspace; //Load duty cycle into CCP1CON, PWM begins

while(1); //Do nothing forever

}