#include "../LIB/STD\_TYPES.h"

#include "../MCAL/TIMER/TIMER\_int.h"

#include <util/delay.h>

#define ANGLE\_TO\_PULSE(X) ((1000UL \* (X)) / 180) + 1000UL

int main(void)

{

// Initialize Timer1 for PWM (50Hz frequency)

MTIMER1A\_vInit\_PWM();

while(1)

{

// Set servo to 180° position (2000μs pulse)

MTIMER1A\_vSetCompareMatchValue(ANGLE\_TO\_PULSE(180));

// Hold position (remove delay if you want instant response)

\_delay\_ms(1000);

}

}