#define *F\_CPU* 1000000

#include <avr/io.h>

#include <util/delay.h>

#include <stdlib.h>

#define enable 5

#define registerselection 7

void send\_a\_command(unsigned char command);

void send\_a\_character(unsigned char character);

void send\_a\_string(char \*string\_of\_character);

void PWM\_init()

{

TCCR0=(1<<WGM00)|(1<<WGM01)|(1<<COM01)|(1<<CS00);

DDRA=(1<<PB0);

}

int main(void)

{

PWM\_init();

DDRC=0XFF;

DDRA=0X00;

DDRD=0XFF;

*\_delay\_ms*(50);

ADMUX|=(1<<REFS0)|(1<<REFS1);

ADCSRA|=(1<<ADEN)|(1<<ADATE)|(1<<ADPS0)|(1<<ADPS1)|(1<<ADPS2);

int count=0;

char showa[3];

send\_a\_command(0X01);

*\_delay\_ms*(50);

send\_a\_command(0x38);

*\_delay\_ms*(50);

send\_a\_command(0x0E);

*\_delay\_ms*(50);

ADCSRA|=(1<<ADSC);

while (1)

{

count=ADC/4;

OCR0=count;

send\_a\_command(0X80+0X40+0);

send\_a\_string("Temp(C)= ");

send\_a\_command(0X80+0X40+8);

*itoa*(count,showa,10);

send\_a\_string(showa);

send\_a\_string(" ");

send\_a\_command(0X80+0);

}

}

void send\_a\_command( unsigned char command)

{

PORTC=command;

PORTD&=~(1<<registerselection);

PORTD|=(1<<enable);

*\_delay\_ms*(50);

PORTD&=~(1<<enable);

PORTC=0;

}

void send\_a\_character(unsigned char character)

{

PORTC=character;

PORTD|=(1<<registerselection);

PORTD|=(1<<enable);

*\_delay\_ms*(50);

PORTD&=~(1<<enable);

PORTC=0;

}

void send\_a\_string(char \*string\_of\_character)

{

while(\*string\_of\_character>0)

{

send\_a\_character(\*string\_of\_character++);

}

}