#include<avr/io.h>

#define *F\_CPU* 1000000

#include<util/delay.h>

#include<stdlib.h>

#define enable 5

#define regesterselection 7

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

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

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

int main(void)

{

DDRC=0xFF;

DDRA=0x00;

DDRD=0xFF;

*\_delay\_ms*(50);

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

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

*int16\_t* COUNTA=0;

char SHOWA[3];

send\_a\_command(0x01);

*\_delay\_ms*(50);

send\_a\_command(0b00001111);

*\_delay\_ms*(50);

ADCSRA|=(1<<ADSC);

while(1)

{

COUNTA=ADC;

send\_a\_string("Smartbridge");

send\_a\_command(0x08+0x04+0);

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

send\_a\_command(0x80+0x40+8);

*itoa*(COUNTA,SHOWA,10);

send\_a\_string(SHOWA);

send\_a\_string(" ");

}

}

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

{

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

{

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

}

}

void send\_a\_character(unsigned char character)

{

PORTC=character;

PORTD|=1<<regesterselection;

PORTD|=1<<enable;

*\_delay\_ms*(20);

PORTD&=~1<<enable;

PORTC=0;

}

void send\_a\_command(unsigned char command)

{

PORTC=command;

PORTD&=~1<<regesterselection;

PORTD|=1<<enable;

*\_delay\_ms*(50);

PORTD&=~1<<enable;

PORTC=0;

}