#include <mega16.h>

#include <stdio.h>

#include <delay.h>

#include <alcd.h>

int s0,s1,s2,s3;

int led[16] = {1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16};

int ln,lednumber;

float maxled = 1023;

char ledtextnum[2];

char maxtextled[4];

void ledmux()

{

PORTB.4 = s0;

PORTB.5 = s1;

PORTB.6 = s2;

PORTB.7 = s3;

}

void findled()

{

ledmux();

s0=0;

s1=0;

s2=0;

s3=0;

led[1] = read\_adc(0);

led[1] = (led[1]/1023)\*5;

s0=0;

s1=0;

s2=0;

s3=1;

led[2] = read\_adc(0);

led[2] = (led[2]/1023)\*5;

s0=0;

s1=0;

s2=1;

s3=0;

led[3] = read\_adc(0);

led[3] = (led[3]/1023)\*5;

s0=0;

s1=0;

s2=1;

s3=1;

led[4] = read\_adc(0);

led[4] = (led[4]/1023)\*5;

s0=0;

s1=1;

s2=0;

s3=0;

led[5] = read\_adc(0);

led[5] = (led[5]/1023)\*5;

s0=0;

s1=1;

s2=0;

s3=1;

led[6] = read\_adc(0);

led[6] = (led[6]/1023)\*5;

s0=0;

s1=1;

s2=1;

s3=0;

led[7] = read\_adc(0);

led[7] = (led[7]/1023)\*5;

s0=0;

s1=1;

s2=1;

s3=1;

led[8] = read\_adc(0);

led[8] = (led[8]/1023)\*5;

s0=1;

s1=0;

s2=0;

s3=0;

led[9] = read\_adc(0);

led[9] = (led[9]/1023)\*5;

s0=1;

s1=0;

s2=0;

s3=1;

led[10] = read\_adc(0);

led[10] = (led[10]/1023)\*5;

s0=1;

s1=0;

s2=1;

s3=0;

led[11] = read\_adc(0);

led[11] = (led[11]/1023)\*5;

s0=1;

s1=0;

s2=1;

s3=1;

led[12] = read\_adc(0);

led[12] = (led[12]/1023)\*5;

s0=1;

s1=1;

s2=0;

s3=0;

led[13] = read\_adc(0);

led[13] = (led[13]/1023)\*5;

s0=1;

s1=1;

s2=0;

s3=1;

led[14] = read\_adc(0);

led[14] = (led[14]/1023)\*5;

s0=1;

s1=1;

s2=1;

s3=0;

led[15] = read\_adc(0);

led[15] = (led[15]/1023)\*5;

s0=1;

s1=1;

s2=1;

s3=1;

led[16] = read\_adc(0);

led[16] = (led[16]/1023)\*5;

for (ln = 1 ; ln = 16 ; ln++)

{

if (led[ln] <maxled)

{

maxled = led[ln];

lednumber = ln;

}

}

while (1)

{

Ledmux();

findled();

sprintf(ledtextnum, "%d", lednumber);

sprintf(maxtextled, "%d", maxled);

lcd\_gotoxy(0,0);

lcd\_putsf("LED");

lcd\_gotoxy(3,0);

lcd\_puts(ledtextnum);

lcd\_gotoxy(5,0);

lcd\_putsf(" :");

lcd\_gotoxy(0,1);

lcd\_puts(maxtextled);

PORTD.0 = 0;

OCR0 = 1;

PORTD.1 = 0;

OCR1B = 1;

PORTD.2 = 0;

OCR2 = 1

PORTD.3 = 0;

OCR1A = 1;

}

}