// LCD module connections

sbit LCD\_RS at RB4\_bit;

sbit LCD\_EN at RB5\_bit;

sbit LCD\_D4 at RB0\_bit;

sbit LCD\_D5 at RB1\_bit;

sbit LCD\_D6 at RB2\_bit;

sbit LCD\_D7 at RB3\_bit;

sbit LCD\_RS\_Direction at TRISB4\_bit;

sbit LCD\_EN\_Direction at TRISB5\_bit;

sbit LCD\_D4\_Direction at TRISB0\_bit;

sbit LCD\_D5\_Direction at TRISB1\_bit;

sbit LCD\_D6\_Direction at TRISB2\_bit;

sbit LCD\_D7\_Direction at TRISB3\_bit;

// End LCD module connections

 int duty ;

 int V ;

char txt1[] = "mikroElektronika";

void main()

{

Lcd\_Init();

 Lcd\_Cmd(\_LCD\_CLEAR);

 Lcd\_Cmd(\_LCD\_CURSOR\_OFF);

 Lcd\_Out(1,1,txt1);

 TRISD0\_bit=1;

 TRISC=0 ;

 TRISC=0 ;

 PWM1\_Init(1000);

 adc\_init();

 PWM1\_Start();

 TRISD = 0xFF; //PORTD as input

 TRISC = 0x00; //PORTC as output

 TRISB = 0x00; //PORTB as output

 PORTB = 0x02; //Run motor in anticlock wise

 while ( PortD.RD0 == 1 )

 {

 if (PORTD.RD1 == 1)

 {

 PORTC.b0= 1 ;

 PORTC.b1 = 0 ;

 }

 else

 {

 PORTC.b1 = 0;

 PORTC.b2=1;

 }

 V = adc\_read(0);

 duty = V/4;

 PWM1\_Set\_Duty(duty);

 }

 }