```
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//304D074
//EXP10



#include<stdio.h>
#include <p18f4550.h>
#define RS LATCbits.LATC0
#define E LATCbits.LATC1
#define LCDPORT LATB

void delay()
{
unsigned int i;
 for(i=0;i<30000;i++)
    {
    }
}
void sendCommand(unsigned char
command) {
LCDPORT=command;
 delay();
 RS=0;
 delay();
 E=1;
 delay();
 E=0;
 delay();
}
void sendData(unsigned char data)
{
LCDPORT=data;
 delay();
 RS=1;
 delay();
 E=1;
 delay();
 E=0;
 delay();
}

void InitLCD(void)
{
sendCommand(0x38);
 sendCommand(0x01);
 sendCommand(0x0F);
 sendCommand(0x06);
```

```
}

void ADCInit()
{
TRISEbits.RE2 = 1;
ADCON0 = 0b00011101;
ADCON1 = 0b00000111;
 ADCON2 = 0b10101110;
}

unsigned short Read_ADC()
{
GODONE = 1;
while(GODONE == 1 );
 return ADRES;
}

void DisplayResult(unsigned short ADCVal)
{
unsigned char i,text[16];
 unsigned short tempv;
 tempv = ADCVal;

 ADCVal = (5500/1024)*tempv;
sprintf(text,"%04dmv",ADCVal);
sendCommand(0x80);
 for(i=0;i<6;i++)
{
 sendData(text[i]);
    }

 sendCommand(0xC0);
for(i=0;i<10;i++)
    {
 if(tempv & 0x200)
    {
 sendData('1');
    }
 else
    {
 sendData('0');
    }
 tempv=tempv<<1;
    }
}

void main()
{
unsigned short Ch_result;
```

```
 TRISB = 0x00;
TRISCbits.RC0 = 0;
 TRISCbits.RC1 = 0;
 ADCInit();
 InitLCD();

while(1)
 {
Ch_result = Read_ADC();
 DisplayResult(Ch_result);  delay();
 delay();
   }
}
```