



Title		
Size A4	Number	Revision
Date: 19-Feb-2009	Sheet of	
File: D:\plan\品记记录\arduino\arduino NGDM01\DrawBy:		

## Example use of LiquidCrystal library

//Sample using LiquidCrystal library

#include <LiquidCrystal.h>

/\*\*\*\*\*\*

This program will test the LCD panel and the buttons

Mark Bramwell, July 2010

\*\*\*\*\*/

// select the pins used on the LCD panel

LiquidCrystal lcd(8, 9, 4, 5, 6, 7);

// define some values used by the panel and buttons

int lcd\_key = 0;

int adc\_key\_in = 0;

#define btnRIGHT 0

#define btnUP 1

#define btnDOWN 2

#define btnLEFT 3

#define btnSELECT 4

#define btnNONE 5

// read the buttons

int read\_LCD\_buttons()

{

  adc\_key\_in = analogRead(0);    // read the value from the sensor

  // my buttons when read are centered at these values: 0, 144, 329, 504, 741

  // we add approx 50 to those values and check to see if we are close

  if (adc\_key\_in > 1000) return btnNONE; // We make this the 1st option for speed reasons since it will be the most

likely result

  if (adc\_key\_in < 50) return btnRIGHT;

  if (adc\_key\_in < 195) return btnUP;

  if (adc\_key\_in < 380) return btnDOWN;

  if (adc\_key\_in < 555) return btnLEFT;

  if (adc\_key\_in < 790) return btnSELECT;

  return btnNONE; // when all others fail, return this...

}

void setup()

{

  lcd.begin(16, 2);            // start the library

  lcd.setCursor(0,0);

  lcd.print("Push the buttons"); // print a simple message

```

}

void loop()
{
  lcd.setCursor(9,1);      // move cursor to second line "1" and 9 spaces over
  lcd.print(millis()/1000); // display seconds elapsed since power-up

  lcd.setCursor(0,1);      // move to the begining of the second line
  lcd_key = read_LCD_buttons(); // read the buttons

  switch (lcd_key)          // depending on which button was pushed, we perform an action
  {
    case btnRIGHT:
    {
      lcd.print("RIGHT ");
      break;
    }
    case btnLEFT:
    {
      lcd.print("LEFT  ");
      break;
    }
    case btnUP:
    {
      lcd.print("UP   ");
      break;
    }
    case btnDOWN:
    {
      lcd.print("DOWN ");
      break;
    }
    case btnSELECT:
    {
      lcd.print("SELECT");
      break;
    }
    case btnNONE:
    {
      lcd.print("NONE ");
      break;
    }
  }
}
}

```