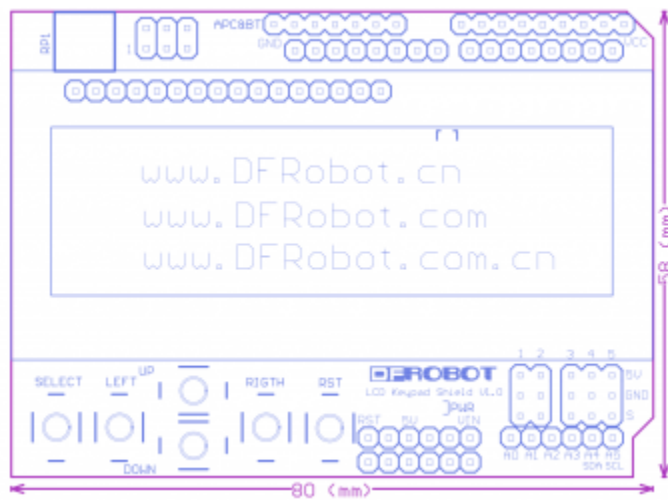
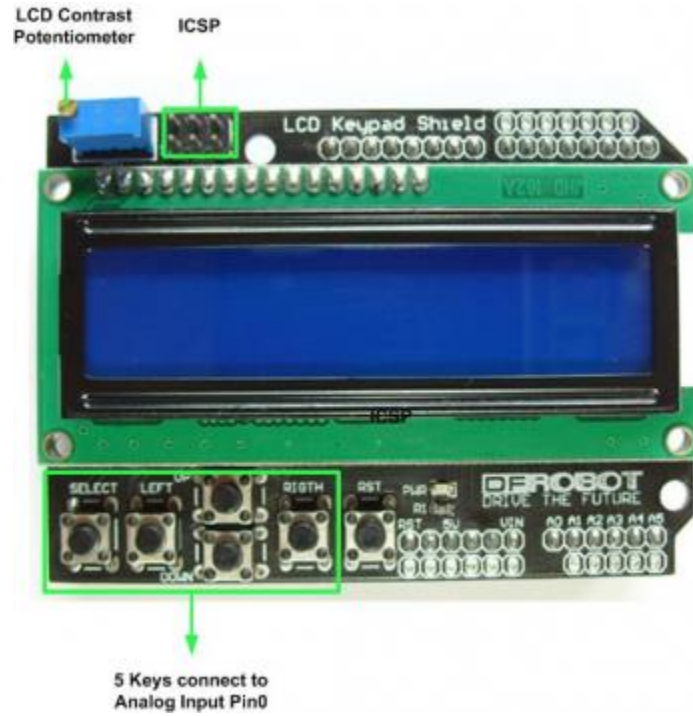
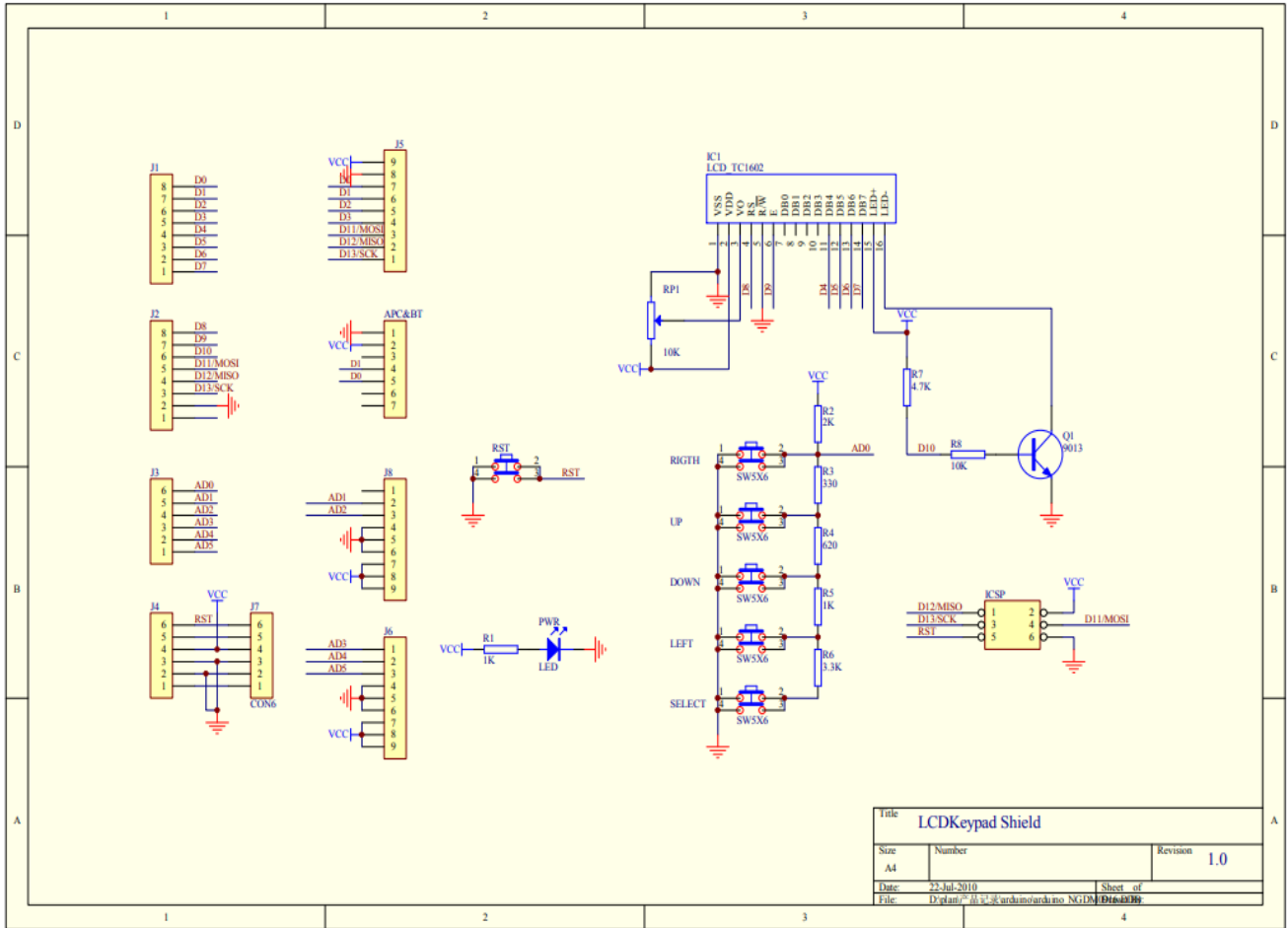


Diagram

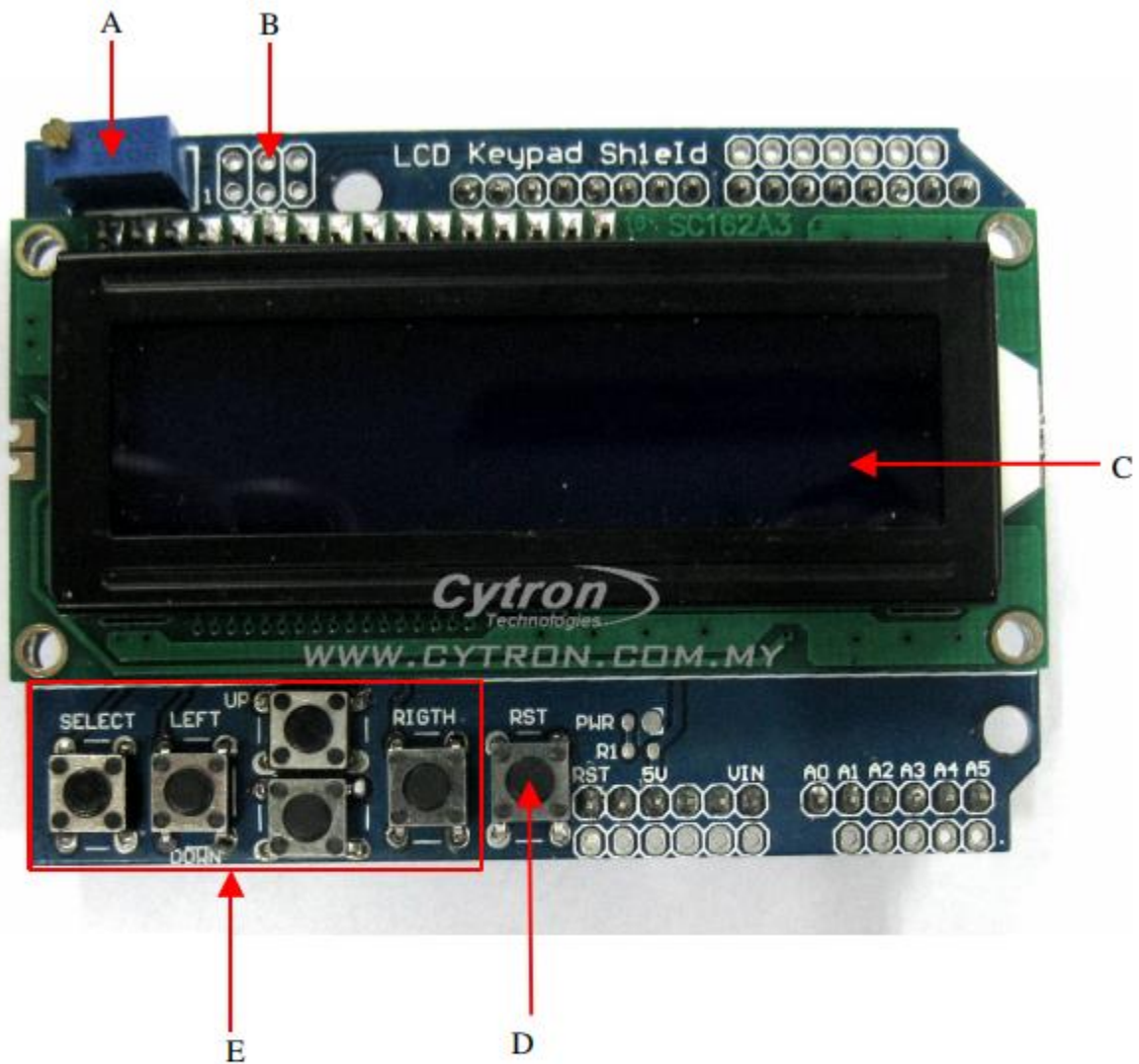


LCDKeypad Shield Schematics



Title			LCDKeypad Shield		
Size	Number	Revision		1.0	
A4					
Date:	22-Jul-2010	Sheet of			
File:	D:\plan\arduino\arduino NG\DI\DI6-036				

BOARD LAYOUT



Label	Function	Label	Function
A	LCD Contrast potentiometer	D	Reset Button
B	ICSP	E	Push button connect to Analog Input Pin0
C	LCD Display		

Sample Code

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

  // For V1.1 us this threshold

  if (adc_key_in < 50) return btnRIGHT;

  if (adc_key_in < 250) return btnUP;

  if (adc_key_in < 450) return btnDOWN;

  if (adc_key_in < 650) return btnLEFT;

  if (adc_key_in < 850) return btnSELECT;

  // For V1.0 comment the other threshold and use the one below:

  /*

  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;  
  
  }  
  
}  
  
}
```