

ITDB02 shield

The ITDB02 LCD module is work in 3.3V voltage level and it's not compatible with Arduino pins, so we make a shield for Arduino. Now user can directly plug the ITDB02 in the shield and stand on the Arduino board.



Overview

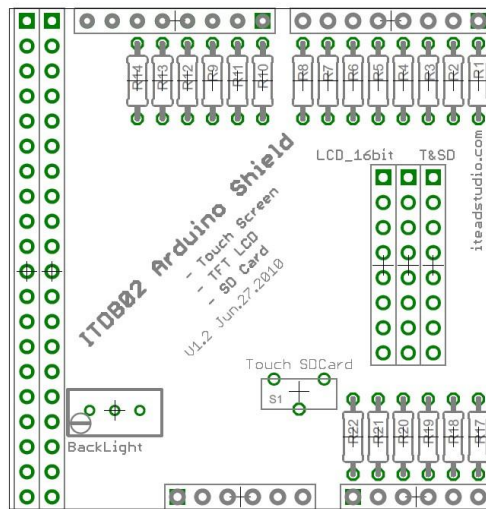
The ITDB02 shield V1.1 is on supports both 16 bit mode and 8 bit mode ITDB02, you can use 2.4" or 3.2" with it. If you use the 8 bit mode, you can use the SD card or the Touch in the ITDB02 either.

There is an adjustable resistor in the board, and user can change the backlight level by readjust it.

Basic features

- Arduino compatible.
- Backlight adjustable
- Touch or SD card expend
- Arduino Library support

Hardware



Pin of Arduino	With ITDB02	
5V	VCC	
3V3	LED_A	RD
GND	GND	
D0	DB8	-
D1	DB9	-
D2	DB10	-
D3	DB11	-
D4	DB12	-
D5	DB13	-
D6	DB14	-
D7	DB15	-
D8	DB0	D_IRQ
D9	DB1	D_OUT
D10	DB2	SD_CS/D_CS
D11	DB3	SD_IN
D12	DB4	SD_OUT
D13	DB5	SD_CLK
A0(D14)	DB6	D_IN
A1(D15)	DB7	D_CLK
A2(D16)	RESET	
A3(D17)	CS	
A4(D18)	WR	
A5(D19)	RS	

Software



We will provide an Arduino library for you, you can download the latest library in the product page or in the Google code project page.

Library function intro:

ITDB02(int D8, int D9, int D10, int D11, int D12, int D13, int D14, int D15, int RS, int WR, int CS, int RST) Enumerating function, define a new class of ITDB02 and assign the pins for the object. Here you can define a LCD's pins out – then the library will work in 8 bit mode.

ITDB02(int D0, int D1, int D2, int D3, int D4, int D5, int D6, int D7, int D8, int D9, int D10, int D11, int D12, int D13, int D14, int D15, int RS, int WR, int CS, int RST) Enumerating function, define a new class of ITDB02 and assign the pins for the object. Here you can define a LCD's pins out – then the library will work in 16 bit mode.

CleanLCD()

Clean the LCD, plan all the LCD with white color.

void Initial()

Used in setup() loop, for initial screen settings.

Pant(int sx, int sy, int ex, int ey, int col)

Fill a area with one color, using the sx, sy, ex, ey to set the color area, and the col is the color value.

SetColor(int FC, int BC)

Set the foreground color and background color. It's usually used before show char or string.

Dispshowchar(int x, int y, char val)

Show a char in the specified location.

Dispshowstr(int x,int y, char *st)

Show the string , x, y is the start position .

Drawdot(int x, int y)

Draw a 9 pixels dot in the LCD.

Touchpin(int tclk,int tcs,int tdin,int dout, int irq)

Assign pins for touch controller..Just can use when in 8 bit mode.

TouchInitial()

Start SPI.

TouchGetaddress()

Read the address from the touch controller register. The address will be put in the TP-X and TP-Y global variables.

TouchGetX()

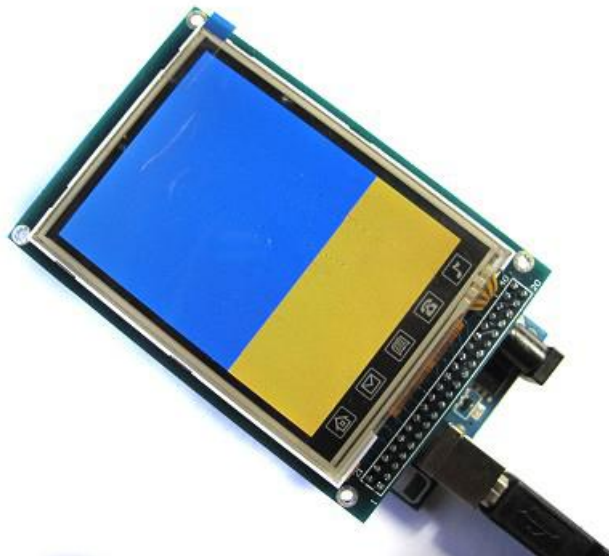
Change the TP-X to the coordinate in LCD.

TouchGetY()

Change the TP-Y to the coordinate in LCD.

TouchIRQ()

Determine whether there is touch interrupt.





There are 3 examples with the library, and they are compatible with ITDB02 shield V1.2.

License



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Links and References

- ITead Studio Site: iteadstudio.com
- Google code project page: <http://code.google.com/p/itdb02>

Revision History

Rev.	Description	Release date
v1.0	Initial version	07/02/2010