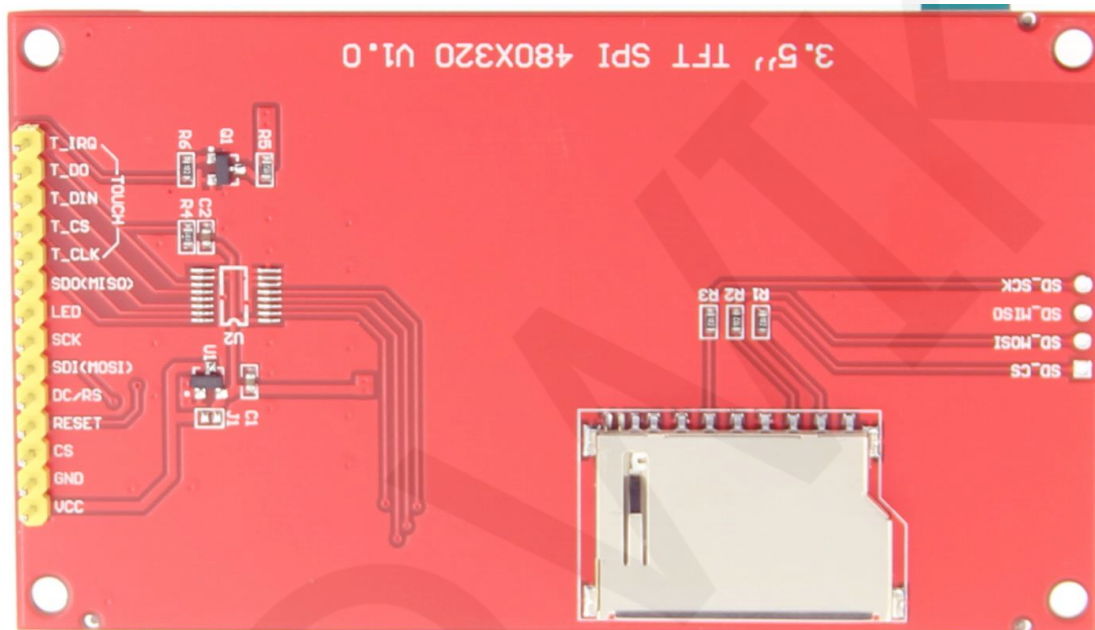


## Test platform introduction:

Development board: Arduino UNO/MEGA2560

MCU: AVR\_ATmega328P/AVR\_ATmega2560(corresponding to the development board in order)

## Wiring instructions:



Pin silkscreen picture

### Arduino UNO microcontroller test program wiring instructions

Number	Module Pin	Corresponding to UNO development board wiring pins	Remarks
1	SDO(MISO)	12	SPI bus read data pin (if it does not support read function or does not need the read function, it can not be connected)
2	LED	A0	Backlight control pin (if no control is required, connect directly to 3.3V)
3	SCK	13	SPI bus clock pin
4	SDI(MOSI)	11	SPI bus data pin

5	DC/RS	A3	LCD data / command selection control pin
6	RESET	A4	LCD reset control pin
7	CS	A5	LCD chip select control pin
8	GND	GND	Power ground pin
9	VCC	5V/3.3V	Power positive pin
10	T_IRQ	6	Touch screen interrupt detection pin
11	T_DO	4	Touch screen SPI bus read data pin
12	T_DIN	5	Touch screen SPI bus write data pin
13	T_CS	2	Touch screen chip select control pin
14	T_CLK	3	Touch screen SPI bus clock pin

### Arduino MEGA2560 microcontroller test program wiring instructions

Number	Module Pin	Corresponding to MEGA2560 development board wiring pins	Remarks
1	SDO(MISO)	50	SPI bus read data pin (if it does not support read function or does not need the read function, it can not be connected)
2	LED	A0	Backlight control pin (if no control is required, connect directly to 3.3V)
3	SCK	52	SPI bus clock pin
4	SDI(MOSI)	51	SPI bus data pin
5	DC/RS	A3	LCD data / command selection control pin
6	RESET	A4	LCD reset control pin
7	CS	A5	LCD chip select control pin
8	GND	GND	Power ground pin
9	VCC	5V/3.3V	Power positive pin
10	T_IRQ	49	Touch screen interrupt detection pin
11	T_DO	47	Touch screen SPI bus read data pin
12	T_DIN	48	Touch screen SPI bus write data pin
13	T_CS	45	Touch screen chip select control pin
14	T_CLK	46	Touch screen SPI bus clock pin

## Demo function description:

1. This set of test program procedures is applicable to UNO and Mega2560 platforms;
2. This set of test programs uses the SPI bus to transfer data, including software spi and hardware spi functions;
3. Please select the corresponding test program and development board to follow the above wiring instructions for wiring;
4. The version of the Arduino IDE used in this test program is 1.8.5. Please use the same or higher version for testing.
5. This set of test programs depends on the LCDWIKI library. Before compiling, you need to copy the LCDWIKI library in the Install libraries directory of the test package to the libraries folder of the Arduino project directory (the default Arduino project directory is C:\Users\Administrator\ Documents\Arduino\libraries);
6. This set of test procedures contains the following test items:
  - A. Example\_01\_Simple\_test is a brush-free test that does not depend on the library, and can be used to detect the LCD hardware;
  - B. Example\_02\_clear\_screen is a simple brush screen test, in the order of black and white red, green and blue colors, the screen is cycled;
  - C. Example\_03\_colligate\_test is a comprehensive test, showing graphics, lines and statistics program running time;
  - D. Example\_04\_display\_graphics is a graphic display test, showing various graphics;
  - E. Example\_05\_display\_scroll is a scroll test, showing text scrolling;
  - F. Example\_06\_display\_string is a text display test, showing Chinese and English in different sizes;
  - G. Example\_07\_read\_pixl is a test for reading the specified pixel color value. If the read function is not supported, this item does not need to be tested;
  - H. Example\_08\_switch\_test is a switch touch test, and the switch is triggered by

clicking a touch;

I. Example\_09\_display\_phonecall is a telephone dialing touch test, by touching the analog dialing function;

J. Example\_10\_touch\_pen is a touch pen drawing test, and draws on the LCD screen by touching with a pen;

K. touch\_screen\_calibration is a touch screen calibration program, and calibration parameters are obtained through calibration;