

Test platform introduction:

Development board: Arduino UNO official version / MEGA2560 official version

MCU: AVR_ATmega328P/AVR_ATmega2560(corresponding to the development board in order)

Wiring instructions:



Picture 1. Pin silkscreen picture

Arduino UNO microcontroller test program wiring instructions

Number	Module Pin	Corresponding to UNO development board wiring pins	Remarks
1	GND	GND	LCD Power ground pin pin
2	VCC	5V	It must be connected to 5V, otherwise it cannot operate normally
3	SCL	13	LCD SPI bus clock pin
4	SDA	11	LCD SPI bus write data pin
5	RES	A4	LCD reset control pin (valid for low level)
6	DC	A3	LCD data / command selection control pin (0-command, 1-data)
7	CS	A2	LCD chip selection control pin (effective at low level)
8	BLK	A0	Backlight control pin (can not be connected, recommended not to be connected, because connecting backlight will cause serious burning)

Arduino MEGA2560 microcontroller test program wiring instructions

Number	Module Pin	Corresponding to MEGA2560 development board wiring pins	Remarks
1	GND	GND	LCD Power ground pin pin
2	VCC	5V	It must be connected to 5V, otherwise it cannot operate normally
3	SCL	52	LCD SPI bus clock pin
4	SDA	51	LCD SPI bus write data pin
5	RES	A4	LCD reset control pin (valid for low level)
6	DC	A3	LCD data / command selection control pin (0-command, 1-data)

7	CS	A2	LCD chip selection control pin (effective at low level)
8	GND	A0	Backlight control pin (can not be connected, recommended not to be connected, because connecting backlight will cause serious burning)

Note: because this module does not contain level conversion function, when it is used on Arduino single chip microcomputer, the power supply is connected to 5V, so the backlight will be relatively hot, especially connected to BLK 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_clear_screen is a simple brush screen test, the screen is cycled in black, white, red, green and blue colors;
 - B. Example_02_colligate_test is a comprehensive test, showing graphics, lines and

statistics program running time;

C. Example_03_display_string is a text display test, showing Chinese and English in different sizes;

D. Example_04_display_graph is a graphical display test, showing various graphics;

E. Example_05_display_scroll is a rotation test.