

# MKS MINI12864LCD

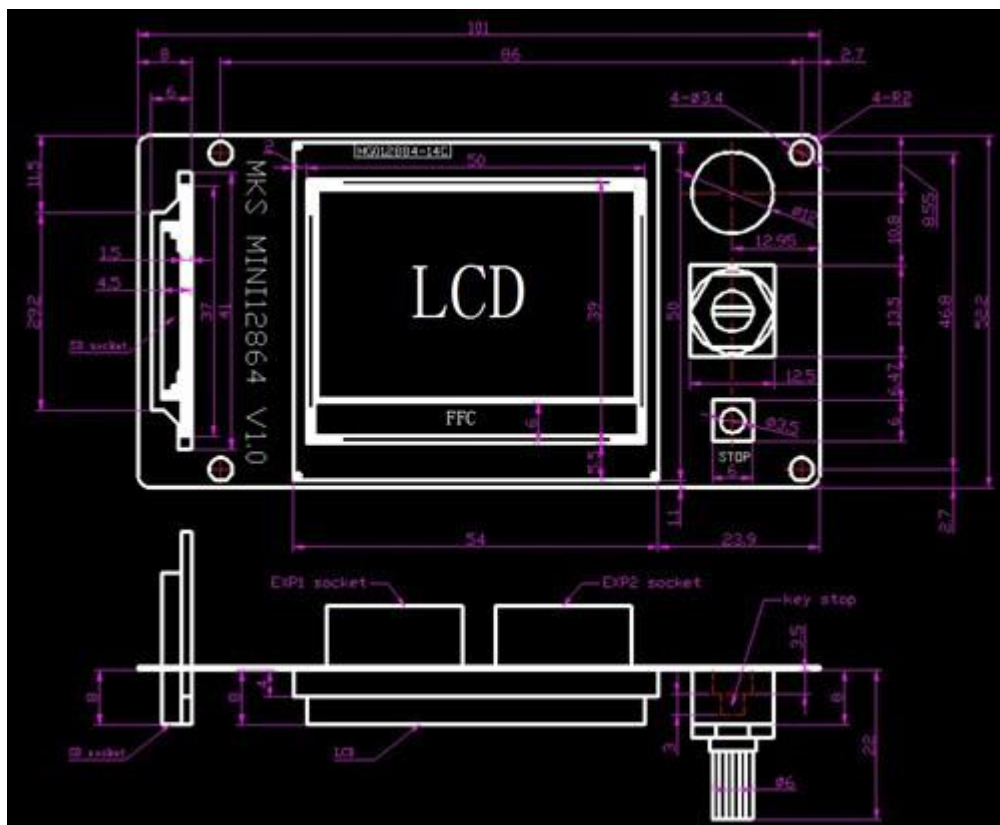
## Advantages

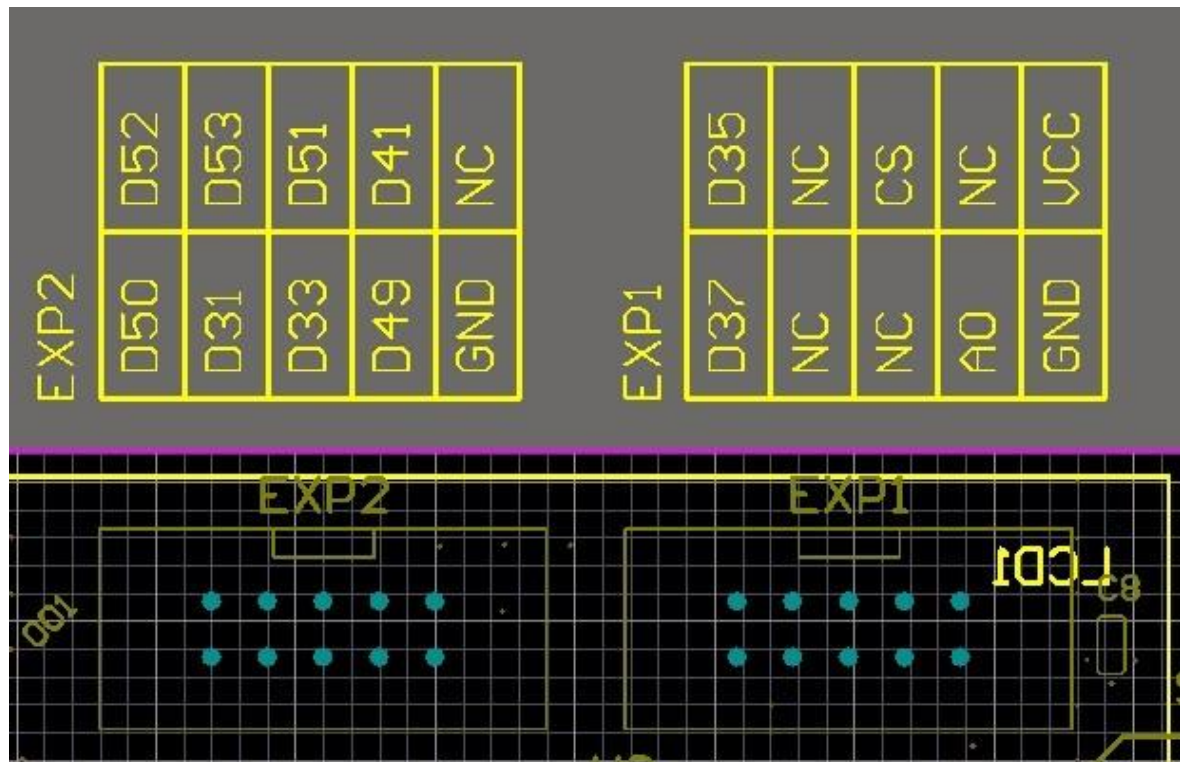
- 1.This LCD brings its own encoder, proceed parameter adjusting.
- 2.Only compatible with Mega 2560 controller board.  
(Can't work with MKS SBASE ,MKS SGEN...)
- 3.Support off-line printing.
- 4.Carry with buzzer tips for operating.

This MINI LCD is suitable for small machines.

And it is smaller than LCD12864.

## MKS MINI12864LCD Size





## How to Set Configurations

Please download firmware from following github.  
[github.com/thingsmart/Marlin-RC](https://github.com/thingsmart/Marlin-RC)

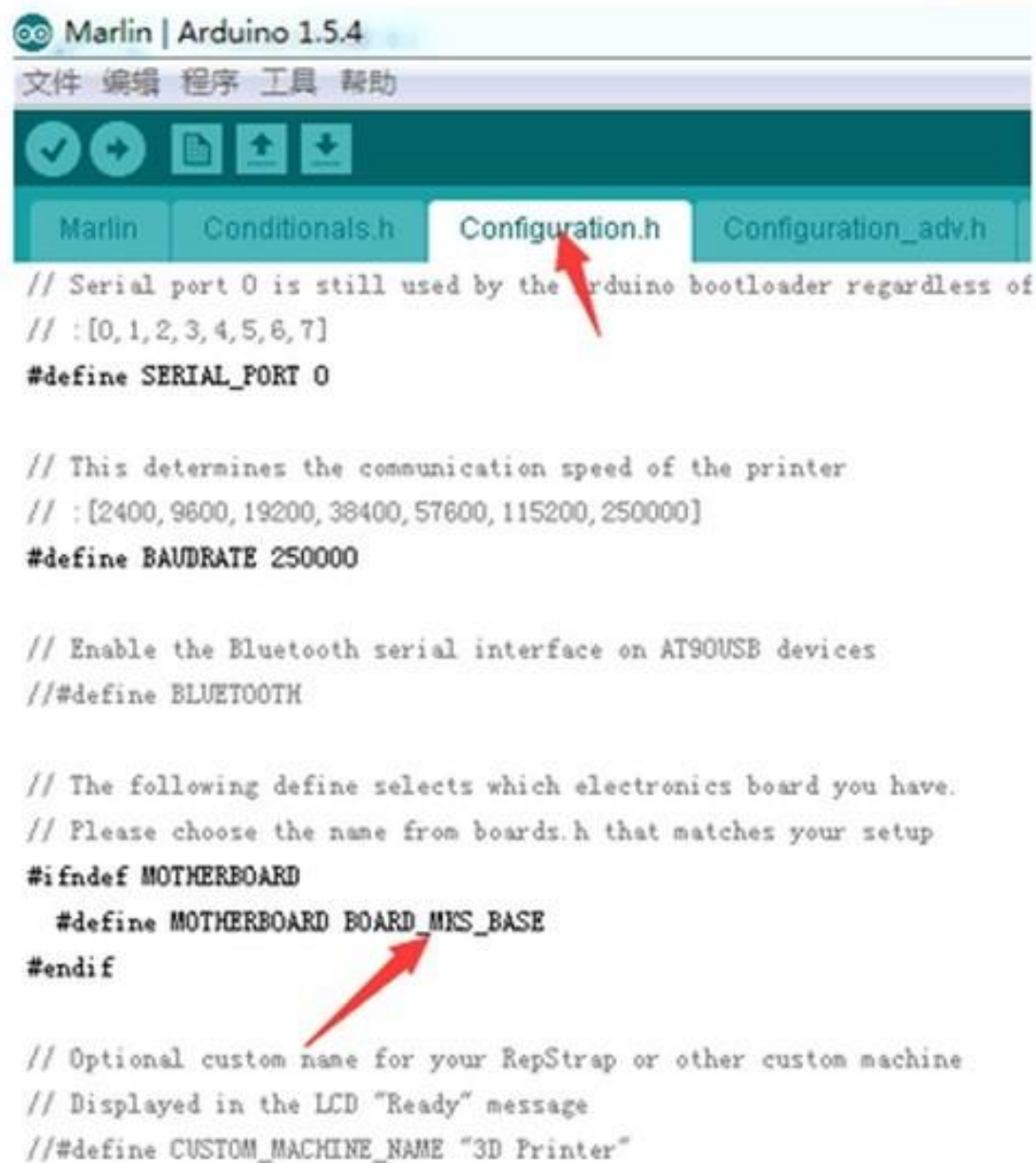
Tips:

The config is suitable for XYZ machine. If for Delta, please use following config.

[marlin/example\\_configurations/delta/generic.](#)

Please refer to following instruction to set configuration.

## Step 1



```
Marlin | Arduino 1.5.4
文件 编辑 程序 工具 帮助

Marlin Conditionals.h Configuration.h Configuration_adv.h

// Serial port 0 is still used by the Arduino bootloader regardless of
// :[0,1,2,3,4,5,6,7]
#define SERIAL_PORT 0

// This determines the communication speed of the printer
// :[2400,9600,19200,38400,57600,115200,250000]
#define BAUDRATE 250000

// Enable the Bluetooth serial interface on AT90USB devices
// #define BLUETOOTH

// The following define selects which electronics board you have.
// Please choose the name from boards.h that matches your setup
#ifndef MOTHERBOARD
  #define MOTHERBOARD BOARD_MKS_BASE
#endif

// Optional custom name for your RepStrap or other custom machine
// Displayed in the LCD "Ready" message
// #define CUSTOM_MACHINE_NAME "3D Printer"
```

## Step 2



```
// http://reprap.org/wiki/RAMPS\_1.3/1.4 GADGETS3D Shield with Panel
// #define G3D_PANEL

// The RepRapDiscount FULL GRAPHIC Smart Controller (quadratic white PCB)
// http://reprap.org/wiki/RepRapDiscount Full Graphic Smart Controller
//
// ==> REMEMBER TO INSTALL U8glib to your ARDUINO library folder: http://www.mikemil.co.uk/u8glib/
// #define REPRAP_DISCOUNT_FULL_GRAPHIC_SMART_CONTROLLER

// The RepRapWorld REPRAPWORLD_KEYPAD v1.1
// http://reprapworld.com/?products\_details&products\_id=202&path=1591
// #define REPRAPWORLD_KEYPAD
// #define REPRAPWORLD_KEYPAD_MOVE_STEP 10.0 // how much should be moved when an event occurs

// The Elefu RA Board Control Panel
// http://www.elefu.com/index.php?route=product/product&product\_id=53
// REMEMBER TO INSTALL LiquidCrystal_I2C.h in your ARDUINO library folder
// #define RA_CONTROL_PANEL

// The MakerLab Mini Panel with graphic controller and SD support
// http://reprap.org/wiki/Mini panel
// #define MINIPANEL

/**
 * I2C Panels
 */
```

### Step 3

Find following values in red color in pins\_RAMPS\_14.h.  
And change them into the values in black. Then, save it.

```
#elif ENABLED(MINIPANEL)
  #define BEEPER_PIN 42 37
  // Pins for DOGM SPI LCD Support
  #define DOGLCD_A0 44 27
  #define DOGLCD_CS 66 25
  #define LCD_PIN_BL 65 // backlight LED on A11/D65
  #define SDSS 53

  #define KILL_PIN 64
  // GLCD features
  // #define LCD_CONTRAST 190
  // Uncomment screen orientation
  // #define LCD_SCREEN_ROT_90
  // #define LCD_SCREEN_ROT_180
  // #define LCD_SCREEN_ROT_270
  // The encoder and click button
  #define BTN_EN1 40 31
  #define BTN_EN2 63 33
  #define BTN_ENC 59 35 the click switch
  // not connected to a pin

  #define SD_DETECT_PIN 49
```



## Notice

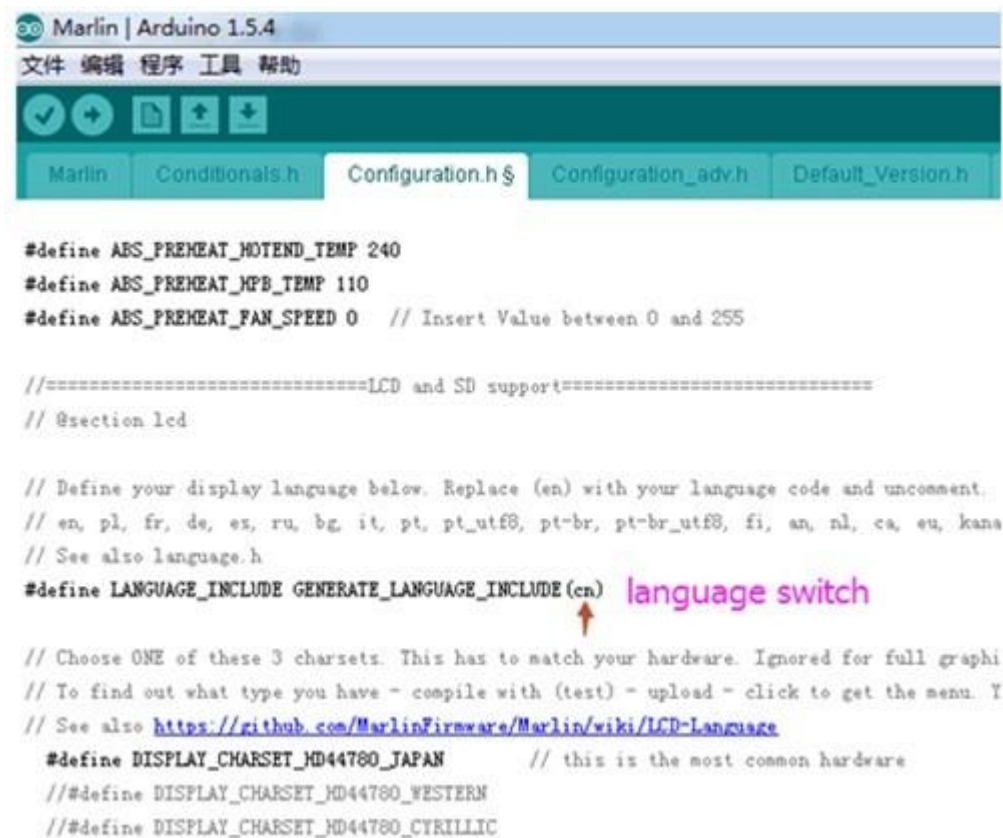
" data-bbox="152 146 783 447"/>

```
Marlin | Arduino 1.5.4
文件 编辑 程序 工具 帮助

Marlin Conditionals.h Configuration.h$ Configuration_adv.h Default_Version.h M100_Free_t

// #define DISPLAY_CHARSET_HD44780_CYRILLIC

// #define ULTRA_LCD // general LCD support, also 16x2
// #define DOGLCD // Support for SPI LCD 128x64 (Controller ST7565R graphic Display Family)
#define SDSUPPORT // Enable SD Card Support in Hardware Console
// #define SPI_SPEED SPI_HALF_SPEED // (also SPI_QUARTER_SPEED, SPI_EIGHTH_SPEED) Use slower SD transfer
// #define SD_CHECK_AND_RETRY // Use CRC checks and retries on the SD communication
// #define ENCODER_PULSES_PER_STEP 1 // Increase if you have a high resolution encoder
// #define ENCODER_STEPS_PER_MENU_ITEM 5 // Set according to ENCODER_PULSES_PER_STEP or your liking
// #define REVERSE_MENU_DIRECTION // When enabled CLOCKWISE moves UP in the LCD menu
// #define ULTIMAKERCONTROLLER // as available from the Ultimaker online store.
// #define ULTIPANEL // the UltiPanel as on Thingiverse
// #define SPEAKER // The sound device is a speaker - not a buzzer. A buzzer resonates with his own frequ
// #define LCD_FEEDBACK_FREQUENCY_DURATION_MS 100 // the duration the buzzer plays the UI feedback sound.
// #define LCD_FEEDBACK_FREQUENCY_HZ 1000 // this is the tone frequency the buzzer plays when on
// 0 to disable buzzer feedback. Test with M300 S<frequency>
```



```
Marlin | Arduino 1.5.4
文件 编辑 程序 工具 帮助

Marlin Conditionals.h Configuration.h$ Configuration_adv.h Default_Version.h

#define ABS_PREHEAT_HOTEND_TEMP 240
#define ABS_PREHEAT_HPB_TEMP 110
#define ABS_PREHEAT_FAN_SPEED 0 // Insert Value between 0 and 255

// =====LCD and SD support=====
// @section lcd

// Define your display language below. Replace (en) with your language code and uncomment.
// en, pl, fr, de, es, ru, bg, it, pt, pt_utf8, pt-br, pt-br_utf8, fi, an, nl, ca, eu, kana
// See also language.h
#define LANGUAGE_INCLUDE GENERATE_LANGUAGE_INCLUDE (en)
// Choose ONE of these 3 charsets. This has to match your hardware. Ignored for full graphi
// To find out what type you have - compile with (test) - upload - click to get the menu. Y
// See also https://github.com/MarlinFirmware/Marlin/wiki/LCD-Language
#define DISPLAY_CHARSET_HD44780_JAPAN // this is the most common hardware
// #define DISPLAY_CHARSET_HD44780_WESTERN
// #define DISPLAY_CHARSET_HD44780_CYRILLIC
```

## How to Adjust the Contract Value

Open `X:\xxxx\Arduino\libraries\U8glib\utility`,  
and find `u8g_dev_uc1701_mini12864.c`. Recommend Notepad++

1. 打开 Arduino 安装目录下的 X:xxx\Arduino\libraries\U8glib\utility 中的“u8g\_dev\_uc1701\_mini12864.c”，推荐打开工具 Notepad++;

名称	修改日期	类型	大小
u8g_dev_t6963_128x64.c	2014/12/21 23:25	C 文件	8 KB
u8g_dev_t6963_128x128.c	2014/12/21 23:25	C 文件	8 KB
u8g_dev_t6963_240x64.c	2014/12/21 23:25	C 文件	8 KB
u8g_dev_t6963_240x128.c	2014/12/21 23:25	C 文件	8 KB
u8g_dev_tls8204_84x48.c	2014/12/21 23:25	C 文件	5 KB
u8g_dev_uc1601_c128032.c	2014/12/21 23:25	C 文件	8 KB
u8g_dev_uc1608_240x64.c	2014/12/21 23:25	C 文件	7 KB
u8g_dev_uc1608_240x128.c	2014/12/21 23:25	C 文件	8 KB
u8g_dev_uc1610_dogxl160.c	2014/12/21 23:25	C 文件	11 KB
u8g_dev_uc1611_dogm240.c	2014/12/21 23:25	C 文件	5 KB
u8g_dev_uc1611_dogxl240.c	2014/12/21 23:25	C 文件	5 KB
u8g_dev_uc1701_dogs102.c	2014/12/21 23:25	C 文件	7 KB
u8g_dev_uc1701_mini12864.c	2014/12/21 23:25	C 文件	7 KB
u8g_ellipse.c	2014/12/21 23:25	C 文件	8 KB
u8g_font.c	2014/12/21 23:25	C 文件	36 KB
u8g_font_data.c	2014/12/21 23:25	C 文件	4,392 KB
u8g_line.c	2014/12/21 23:25	C 文件	3 KB
u8g_ll_api.c	2014/12/21 23:25	C 文件	15 KB
u8g_page.c	2014/12/21 23:25	C 文件	3 KB
u8g_pb.c	2014/12/21 23:25	C 文件	5 KB
u8g_pb8h1.c	2014/12/21 23:25	C 文件	10 KB
u8g_pb8h1f.c	2014/12/21 23:25	C 文件	6 KB
u8g_pb8h2.c	2014/12/21 23:25	C 文件	5 KB
u8g_pb8h2f.c	2014/12/21 23:25	C 文件	5 KB

2. 找到“0x027, /\* contrast value \*/”这句，将0x027值调大，则亮度会加亮，例如改成0x02A。

Find "0x027,/\*contract value,increase the value,such as 0x02a.

```

0x0e2, /* soft reset */
0x040, /* set display start line to 0 */
0x0a0, /* ADC set to reverse */
0x0c8, /* common output mode */
0x0a6, /* display normal, bit val 0: LCD pixel off. */
0x0a2, /* LCD bias 1/9 */
0x2f, /* all power control circuits on */
0xf8, /* set booster ratio to */
0x00, /* 4x */
0x23, /* set V0 voltage resistor ratio to large */
0x81, /* set contrast */
0x27, /* contrast value */
0xac, /* indicator */
0x00, /* disable */
0xaf, /* display on */

USG_ESC_DLY(100), /* delay 100 ms */
0x0a5, /* display all points, ST7565 */
USG_ESC_DLY(100), /* delay 100 ms */
USG_ESC_DLY(100), /* delay 100 ms */
0x04, /* normal display */
USG_ESC_CS(0), /* disable chip */
USG_ESC_END /* end of sequence */

0x0e2, /* soft reset */
0x040, /* set display start line to 0 */
0x0a0, /* ADC set to reverse */
0x0c8, /* common output mode */
0x0a6, /* display normal, bit val 0: LCD pixel off. */
0x0a2, /* LCD bias 1/9 */
0x2f, /* all power control circuits on */
0xf8, /* set booster ratio to */
0x00, /* 4x */
0x23, /* set V0 voltage resistor ratio to large */
0x81, /* set contrast */
0x2a, /* contrast value */
0xac, /* indicator */
0x00, /* disable */
0xaf, /* display on */

USG_ESC_DLY(100), /* delay 100 ms */
0x0a5, /* display all points, ST7565 */
USG_ESC_DLY(100), /* delay 100 ms */
USG_ESC_DLY(100), /* delay 100 ms */
0x04, /* normal display */
USG_ESC_CS(0), /* disable chip */
USG_ESC_END /* end of sequence */

```