

MKS TS35 User Manual

This document is the basic hardware and firmware description of MKS TS35, which is convenient for beginners or users who are not familiar with 3D printing.

If your question is deeper, or the documentation doesn't mention it.

*Please don't worry, you can contact us through **Makerbase.store** information or email (service@makerbase.store), we will try our best to help you solve the problem.*

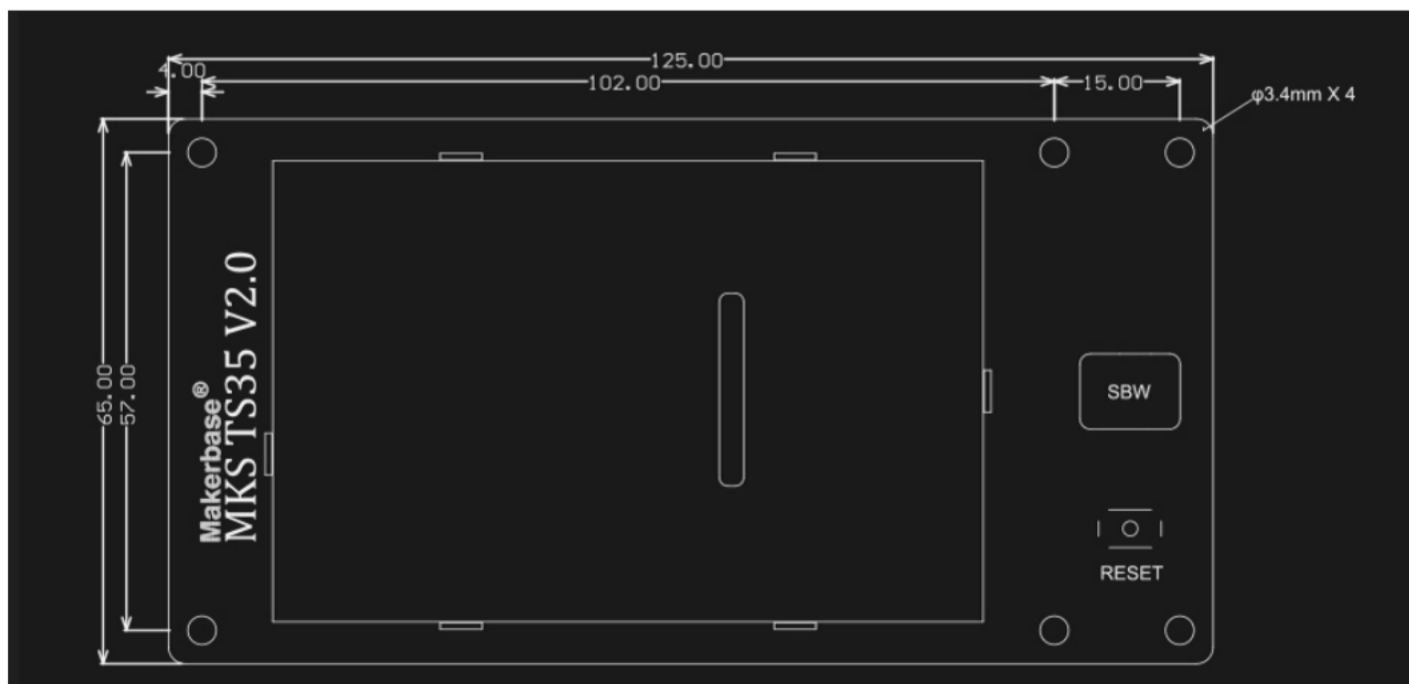


MKS TS35 is a touch screen specially designed by makerbase for 3D printing motherboards, and it is used with marlin firmware. It supports two modes of touch operation and knob operation.

In marlin firmware, it can support LVGL-UI, Classic-UI, Color-UI.



MKS TS35 screen size



Compatible Motherboard Types

Because the current MKS TS35 screen is only compatible with MKS motherboards. Other types of motherboards such as BIQU, FLY, and FYS are not supported for the time being.

MKS motherboard supports UI style

LVGL UI: MKS ROBIN V3/MKS ROBIN NANO V2/MKS ROBIN E3P

COLOR-UI: MKS ROBIN V3/MKS ROBIN NANO V2/MKS ROBIN E3P/MKS MONSTER8/MKS ROBIN E3/E3D/MKS SGEN-L V1/SGEN_L V2. (except MKS Tinybee, MKS 32-bit motherboards can support this UI style)

Classic-UI: ***COLOR-UI:*** MKS ROBIN V3/MKS ROBIN NANO V2/MKS ROBIN E3P/MKS MONSTER8/MKS ROBIN E3/E3D/MKS SGEN-L V1/SGEN_L V2. (except MKS Tinybee, MKS 32-bit The motherboard can support this UI style)

How to enable screen in marlin firmware

1.enable “define MKS_TS35_V2_0”

```

Marlin.ino Configuration.h Configuration_adv.h Version.h
2629
2630 //=====
2631 //===== Graphical TFTs =====
2632 //=====
2633
2634 /**
2635  * Specific TFT Model Presets. Enable one of the following options
2636  * or enable TFT_GENERIC and set sub-options.
2637  */
2638
2639 //
2640 // 480x320, 3.5", SPI Display From MKS
2641 // Normally used in MKS Robin Nano V2
2642 //
2643 #define MKS_TS35_V2_0
2644
2645 //
2646 // 320x240, 2.4", FSMC Display From MKS
2647 // Normally used in MKS Robin Nano V1.2
2648 //
2649 //#define MKS_ROBIN_TFT24
2650
2651 //
2652 // 320x240, 2.8", FSMC Display From MKS
2653 // Normally used in MKS Robin Nano V1.2
2654 //
2655 //#define MKS_ROBIN_TFT28
2656

```

2.Select the corresponding required UI-style according to the model of the motherboard

```

Marlin.ino Configuration.h Configuration_adv.h Version.h
2724 //#define TFT_RES_480x272
2725 //#define TFT_RES_480x320
2726 //#define TFT_RES_1024x600
2727 #endif
2728
2729 /**
2730  * TFT UI - User Interface Selection. Enable one of the following options:
2731  *
2732  *   TFT_CLASSIC_UI - Emulated DOGM - 128x64 Upscaled
2733  *   TFT_COLOR_UI   - Marlin Default Menus, Touch Friendly, using full TFT capabilities
2734  *   TFT_LVGL_UI    - A Modern UI using LVGL
2735  *
2736  * For LVGL_UI also copy the 'assets' folder from the build directory to the
2737  * root of your SD card, together with the compiled firmware.
2738  */
2739 //#define TFT_CLASSIC_UI
2740 // #define TFT_COLOR_UI
2741 #define TFT_LVGL_UI
2742
2743 #if ENABLED(TFT_LVGL_UI)
2744   #define MKS_WIFI_MODULE // MKS WiFi module
2745 #endif
2746
2747 /**
2748  * TFT Rotation. Set to one of the following values:

```

3.enable “define TOUCH_SCREEN”

```

Marlin.ino Configuration.h Configuration_adv.h Version.h
2779 // #define DWIN_MARLINUI_PORTRAIT
2780 // #define DWIN_MARLINUI_LANDSCAPE
2781
2782 //
2783 // Touch Screen Settings
2784 //
2785 #define TOUCH_SCREEN
2786 #if ENABLED(TOUCH_SCREEN)
2787   #define BUTTON_DELAY_EDIT 50 // (ms) Button repeat delay for edit screens
2788   #define BUTTON_DELAY_MENU 250 // (ms) Button repeat delay for menus
2789
2790   // #define TOUCH_IDLE_SLEEP 300 // (secs) Turn off the TFT backlight if set (5mn)
2791
2792   #define TOUCH_SCREEN_CALIBRATION
2793
2794   // #define TOUCH_CALIBRATION_X 12316
2795   // #define TOUCH_CALIBRATION_Y -8981
2796   // #define TOUCH_OFFSET_X -43
2797   // #define TOUCH_OFFSET_Y 257
2798   // #define TOUCH_ORIENTATIION TOUCH_LANDSCAPE
2799
2800 #if BOTH(TOUCH_SCREEN_CALIBRATION, EEPROM_SETTINGS)
2801   #define TOUCH_CALIBRATION_AUTO_SAVE // Auto save successful calibration values to EEPROM
2802 #endif
2803
2804 #if ENABLED(TFT_COLOR_UI)
2805   // #define SINGLE_TOUCH_NAVIGATION
2806 #endif
2807 #endif

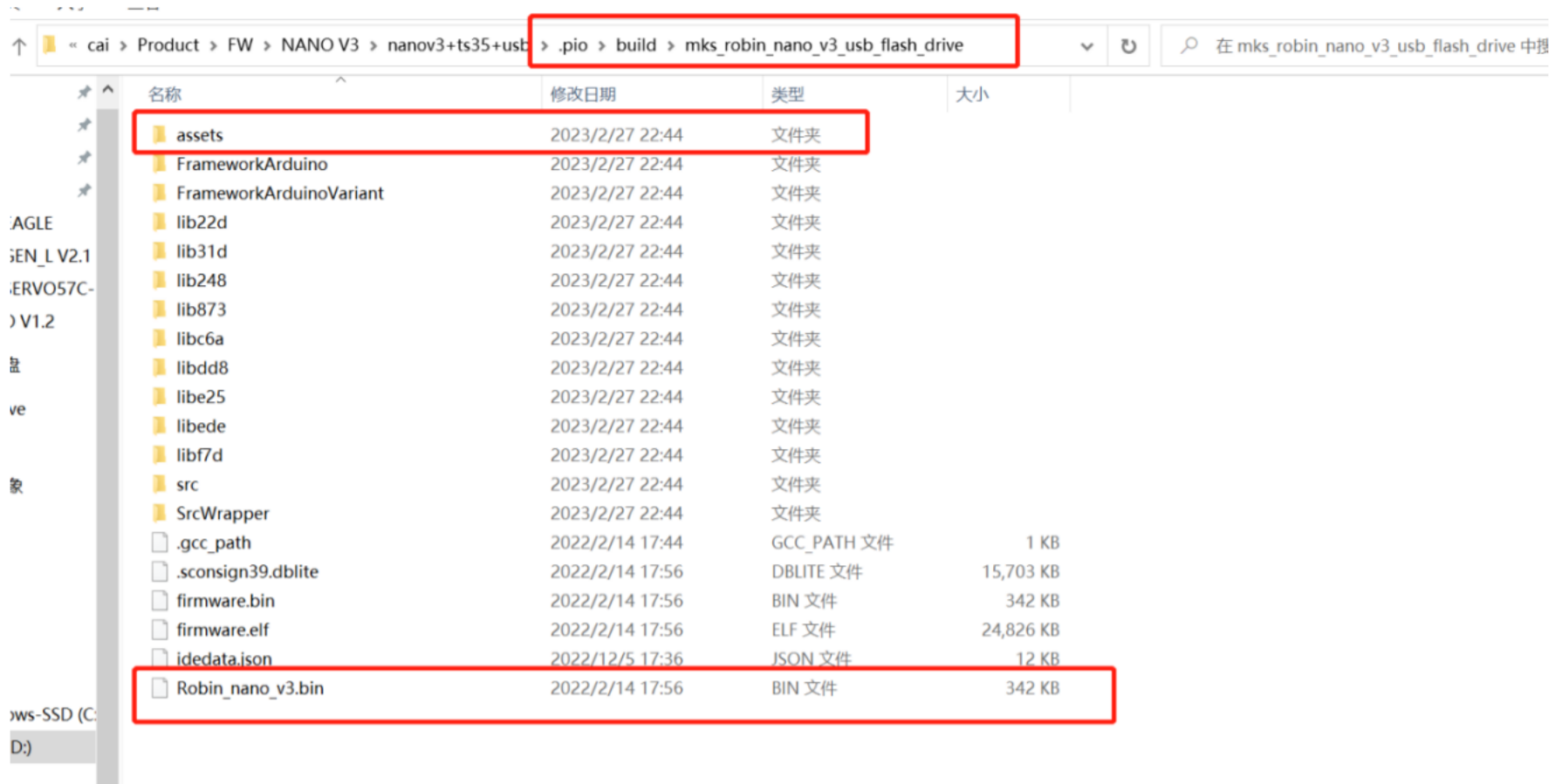
```

After completing the above operations, you can recompile the firmware and upload it to the motherboard.

To update the firmware, you only need to copy the files in the corresponding path to the SD card and connect it to the motherboard for update.

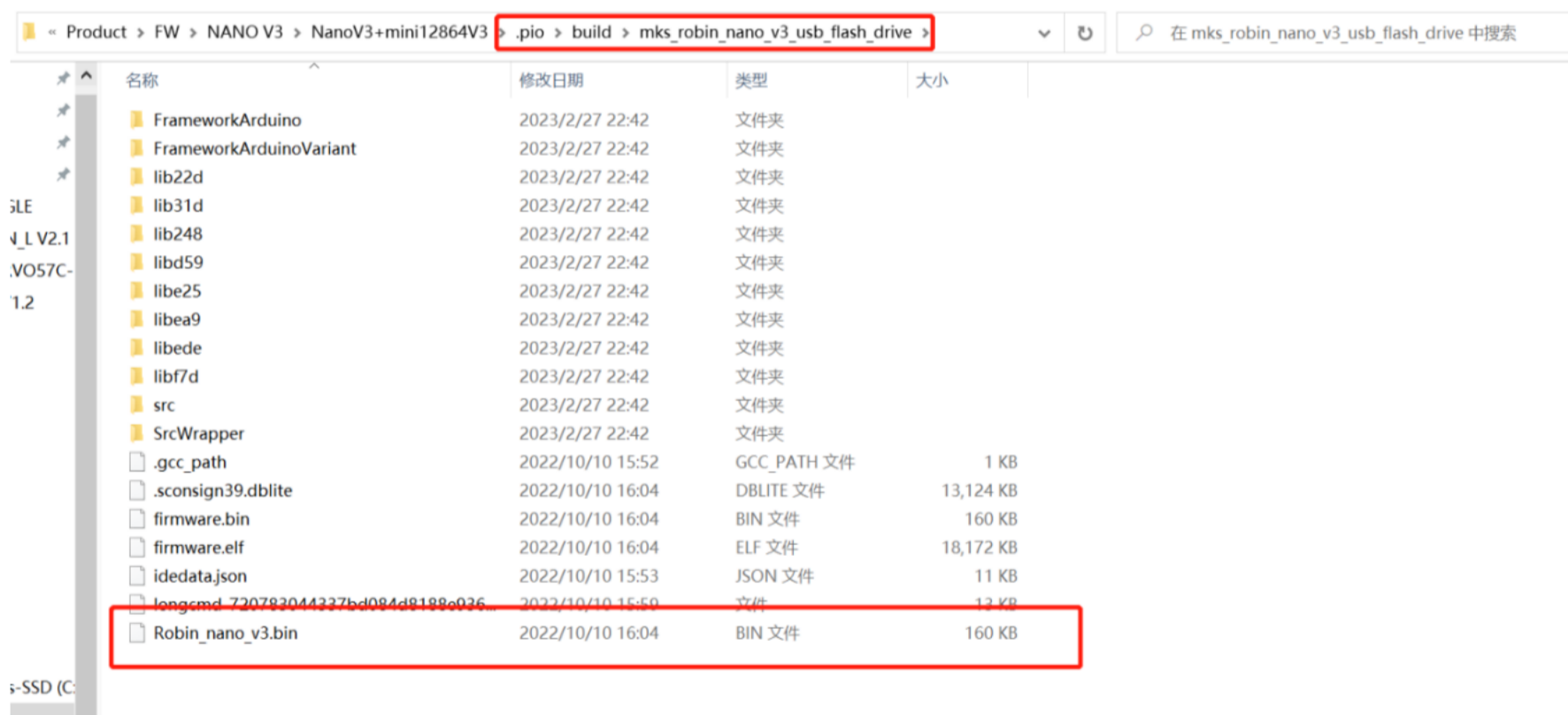
LVGL-UI, you need to copy these two files (take nano v3 as an example)

“asset” and “robin-nano-v3.bin”



If you set color ui or classic-ui in the firmware.

After the compilation is complete, copy "robin-nano-v3.bin" directly to this path



Connect to the motherboard for power-up updates. After the update is completed, the bin file in the SD card will become a cur file, indicating that the firmware update is successful. If there is no format change, it means that the update was not successful.

It is recommended to check whether the firmware used corresponds to the motherboard model, or replace the SD card and format it to fat32, and update it again.

Q1:what if my question is not covered in this one?

A1:You can contact us directly through makerbase.store.

Or send questions to our email, or leave a message on our github

Email: service@makerbase.store

Github: <https://github.com/makerbase-mks>