

Sonic Pad

Firmware Burning Tutorial

(MacOS)

Version	V1.2
Date	2023/4/22
version record	V1.0 initial version V1.1 Chapter 4 Add Notes Before Burning V1.2 Add instructions for formatting and burning commands V1.3 firmware requirements:only t800-sonic_lcd-ab_1.0.6.48.55 and above version support MacOS burning
editor	

Shenzhen Creality 3D Technology Co., Ltd

Catalog:

- | | |
|-------------------------------|---|
| 1. Tools | 3 |
| 2. Enter the burning mode | 3 |
| 3. Sonic pad firmware burning | 3 |

1. Tools

1. PhoenixSuit_MacOS_T800.zip
2. t800-sonic_lcd_uart0_1.0.6.xx.xx.img (burning firmware, only version 1.0.6.48.55 or later supports MacOS burning)
3. Male to male USB cable

2. Enter the burning mode

1. When the Sonic pad is turned off, insert the USB cable into the CAM port
2. Press and hold the FEL button on the right with a paper clip
3. Press the Power button to power on the Sonic pad, then the Sonic pad will enter the burning mode



3. Sonic pad firmware burning

Notes before burning the firmware: Put the firmware that needs to be upgraded into the burning tool directory, connect the Sonic pad to the computer with a male-to-male USB cable, and then let the Sonic pad enter the burning mode. The specific steps are as follows:

3.1 Open the terminal and enter the tool directory, execute `./phoenixsuit t800-sonic_lcd_uart0_1.0.*.img`

```
PhoenixSuit_MacOS — ./phoenixsuit t800-sonic_lcd_uart0_1.0.6.40.112.img — phoenixsuit t800-sonic_lcd_uart0...
./phoenixsuit
cxsw@cxsw ~/Desktop/PhoenixSuit_MacOS [./phoenixsuit t800-sonic_lcd_uart0_1.0.6.40.112.img
*****Allwinnertech*****
AW MacOS Burn firmware software V1.0.0
*****Allwinnertech*****
-----LoadPluginCenter-----
library file path: /Users/cxsw/Desktop/PhoenixSuit_MacOS/plgvector.dll
library file path: /Users/cxsw/Desktop/PhoenixSuit_MacOS/LiveProc.Pig
-----SplitLiveProc-----
library file path: /Users/cxsw/Desktop/PhoenixSuit_MacOS/plgvector.dll
library file path: /Users/cxsw/Desktop/PhoenixSuit_MacOS/luafex.dll
-----OnImage-----
DeviceThreadEntryForMac called
Register./luaBase.dll l_RegAllFun Success!
Register./luaFex.dll l_RegAllFun Success!
Register./luadec.dll l_RegAllFun Success!
copy luatool from local
----enter sem_wait-----
```

3.2 Sonic pad enters the burning mode, please refer to Chapter 2. The burning process is shown in the figure below:

```
PhoenixSuit_MacOS — ./phoenixsuit t800-sonic_lcd_uart0_1.0.6.40.112.img — phoenixsuit t800-sonic_lcd_uart0...
./phoenixsuit phoenixsuit t800-sonic_lcd_uart0_1.0.6.40.112.img
progress 17%[TL_MSG]:need verify:1,VBOOT-RESOURCE_F
[TL_FEX]:400, 1ccc00
[TL_MSG]:Verify:start = 0x400 ,size = 0x1ccc00 ,pc_crc = 0xbd96d6e, media crc = 0xbd96d6e
[TL_MSG]:name = boot-resource1 addrhi=0x0 addrlo = 0x1400 lenhi = 0x0 lenlo = 0x1000 file = BOOT-RESOURCE1_F, en=0 ,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 28%[TL_MSG]:need verify:1,VBOOT-RESOURCE1_
[TL_FEX]:1400, 1ccc00
[TL_MSG]:Verify:start = 0x1400 ,size = 0x1ccc00 ,pc_crc = 0x4260ac75, media crc = 0x4260ac75
[TL_MSG]:name = env addrhi=0x0 addrlo = 0x2400 lenhi = 0x0 lenlo = 0x400 file = ENV_FEX00000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 39%[TL_MSG]:need verify:1,ENV_FEX00000000
[TL_FEX]:2400, 20000
[TL_MSG]:Verify:start = 0x2400 ,size = 0x20000 ,pc_crc = 0x149ceca1, media crc = 0x149ceca1
[TL_MSG]:name = env-redund addrhi=0x0 addrlo = 0x2800 lenhi = 0x0 lenlo = 0x400 file = ENV_FEX00000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 51%[TL_MSG]:need verify:1,ENV_FEX00000000
[TL_FEX]:2800, 20000
[TL_MSG]:Verify:start = 0x2800 ,size = 0x20000 ,pc_crc = 0x149ceca1, media crc = 0x149ceca1
[TL_MSG]:name = bootA addrhi=0x0 addrlo = 0x2c00 lenhi = 0x0 lenlo = 0x7800 file = BOOT_FEX00000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 62%[TL_MSG]:need verify:1,VBOOT_FEX00000000
[TL_FEX]:2c00, a70000
[TL_MSG]:Verify:start = 0x2c00 ,size = 0xa70000 ,pc_crc = 0xce5db4bd, media crc = 0xce5db4bd
[TL_MSG]:name = bootB addrhi=0x0 addrlo = 0x4400 lenhi = 0x0 lenlo = 0x7800 file = BOOT_FEX00000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 73%[TL_MSG]:need verify:1,VBOOT_FEX00000000
[TL_FEX]:a400, a70000
[TL_MSG]:Verify:start = 0xa400 ,size = 0xa70000 ,pc_crc = 0xce5db4bd, media crc = 0xce5db4bd
[TL_MSG]:name = rootfsA addrhi=0x0 addrlo = 0x11c00 lenhi = 0x0 lenlo = 0x100000 file = ROOTFS_FEX000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 84%
```

3.3 After the burning is completed, it will automatically restart after "progress 100% Burn Finish"

```

PhoenixSuit_MacOS — cxsw@cxsw — zsh — 116x64
..nixSuit_MacOS

[TL_FEX]:a400, a76000
[TL_MSG]:Verify:start = 0xa400 ,size = 0xa76000 ,pc_crc = 0xce5db4bd, media crc = 0xce5db4bd
[TL_MSG]:name = rootfsA addrhi=0x0 addrlo = 0x11c00 lenhi = 0x0 lenlo = 0x100000 file = ROOTFS_FEX000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 85%[TL_MSG]:need verify:1,VR00TFS_FEX000000
[TL_FEX]:11c00, 1a9a0000
[TL_MSG]:Verify:start = 0x11c00 ,size = 0x1a9a0000 ,pc_crc = 0x11df6cf0, media crc = 0x11df6cf0
[TL_MSG]:name = rootfsB addrhi=0x0 addrlo = 0x11c00 lenhi = 0x0 lenlo = 0x100000 file = ROOTFS_FEX000000, en=0,vf=1
[TL_MSG]:sparse: bad magic, it is NOT a sparse format part
progress 94%[TL_MSG]:need verify:1,VR00TFS_FEX000000
[TL_FEX]:11c00, 1a9a0000
[TL_MSG]:Verify:start = 0x11c00 ,size = 0x1a9a0000 ,pc_crc = 0x11df6cf0, media crc = 0x11df6cf0
progress 96%[TL_MSG]:storage type is 2 (0:nand 1-2:card 3:spinor)
[TL_MSG]:bootpackage_mode : 4
[TL_MSG]:save item to mem :(12345678,800TPKG-00000000) realLen(1015008)
[TL_MSG]:Verify: media crc = 0
[TL_MSG]:down uboot success!!!
progress 97%[TL_MSG]:storage type is 2 (0:nand 1-2:card 3:spinor)
[TL_MSG]:bootpackage_mode : 4
[TL_MSG]:save item to mem :(12345678,123456789000T_0) realLen(65536)
[TL_MSG]:Verify: media crc = 0
[TL_MSG]:down boot0 success!!!
progress 100%
Burn Finish;
[TL_MSG]:---fun end-----
-----Exit Called-----
Closing image now!
Clos image OK!
[TL_MSG]:Tools Close Img ...
---fun end---
L302, Finished to call Tools.entry_fes_thread.
-----exit-----

```

Remarks:

1. When the device cannot be started, please use the format and burn command, and all user data will be cleared.

Execute `./phoenixsuit t800-sonic_lcd_uart0_1.0.*.img c`

2. When it fails to burn, it is stuck on the following interface, please follow the steps in Chapter 2 to re-enter the programming mode.

```

*****Allwinnertech*****
[AW MacOS Burn firmware software V1.0.0
*****Allwinnertech*****
-----LoadPluginCenter-----
library file path: /Users/wuqi/Desktop/PhoenixSuit_MacOS_T800/plgvector.dll
library file path: /Users/wuqi/Desktop/PhoenixSuit_MacOS_T800/LiveProc.Plg
-----SetLiveProc-----
library file path: /Users/wuqi/Desktop/PhoenixSuit_MacOS_T800/plgvector.dll
library file path: /Users/wuqi/Desktop/PhoenixSuit_MacOS_T800/luafex.dll
-----OnImage-----
DeviceThreadEntryForMac called
Register./luaBase.dll l_RegAllFun Sucess!
Register./luafex.dll l_RegAllFun Sucess!
Register./luadec.dll l_RegAllFun Sucess!
copy luatool from local
-----enter sem_wait-----

```