



AiPi-Eyes-S2 User Manual

Version V1.0 Copyright ©2023

Document formulation/revision/revocation resume

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Version	Date	Formulate/revise content	Formulate	Approve
V1.0	2023.06.15	First Edition	Zekai Qian	





1. Flashing preparation

1.1 Hardware preparation

Hardware list:

Hardware	QTY
Ai-M61EVB-S2	1
USB to TTL module	1
DuPont Line	several

Wiring Instruction:

Ai-M61EVB-S2	USB 转 TTL 模块
3V3	3V3
GND	GND
RXD	TXD
TXD	RXD

Board wiring diagram:







Board connect TTL:





1.2 Software preparation

1.2.1 Flash software, prepare firmware

The software compression package is as follows:

Water BouffaloLabDevCube-v1.8.3.zip	2023/6/15 12:01	WinRAR ZIP 压缩	270, <mark>404</mark> KB
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The directory after software decompression is as follows:

1 KB	IL文件	TO	2023/6/15 13:34	config.toml
3 KB	dows 批处理	Wir	2023/2/17 14:17	clear.bat
62,792 KB		文件	2023/2/23 14:21	BLDevCube-ubuntu
40,050 KB		文件	2023/2/23 14:02	BLDevCube-macos-x86_64
30,016 KB		文件	2023/2/23 13:48	BLDevCube-macos-arm64
38,787 KB	程序	应用	2023/2/23 14:20	BLDevCube.exe
15,529 KB		文件	2023/2/23 14:14	bflb_iot_tool-ubuntu
11,826 KB		文件	2023/2/20 11:16	bflb_iot_tool-macos
15,799 KB	程序	应用	2023/2/23 13:56	bflb_iot_tool.exe
	夹	文件	2023/2/20 11:06	utils
	夹	文件	2023/6/15 13:34	log
	夹	文件	2023/2/20 11:06	docs
	夹	文件	2023/2/20 14:44	chips
	夹	文件	2023/2/20 14:44	chips

The software version used in this fixed frequency test is 1.8.3



The firmware is as follows:

M61_S2_display_whole_v1.1.bin 2023/6/15 15:06	BIN 文件	2,267 KB
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1.2.2 Firmware burning

Run "BLDevCube.exe", select BL616/618 in Chip Type, click Finish, and enter the programming interface as follows.

	Thip Selection X					
	Bouffalo Lab					
	Chip BL616/618 - Back Finish Cancel					
👕 Bouffalo Lab Dev Cube 1.8.3 - BL	616/618				<u>ן</u>	×
<u>File View H</u> elp						
IOT MCU MFG						
Firmware Options			Basic Options			
partition table		Browse	Interface	Uart	•	
aes-encrypt key (16 bytes)	iv (16 bytes)		Port/SN		•	
ecc-signature public key	Browse private key	Browse	Uart Rate	921600		
Single Download Options			JLink Rate	000		
✓ Enable 0x0	E:/Work/固件定制确认函/M61测试/S1/M61_S1_display_whole(1).bin	Browse	B	Refresh		
				Clear		
			-	Log	_	
				pen Uart		
			Create	& Download		
	0%					
						 c
ļ.						



Flashing steps:

Connect the TTL connected to the module to the computer. After confirming the power on, you need to set the module to the burning mode. The specific operation process is

Long press the S2 button (BURN) without releasing it, press the S1 button (RST), and then release the S2 button (BURN)

irmware Options 1. Choose IoT page	ge				Basic Options		
partition table				Browse	Interface	Uart	•
aes-encrypt key (16 bytes)		iv (16 bytes)			Port/SN	COM3	•
ecc-signature public key	Browse	private key		Browse	Uart Rate	921600	
ingle Download Options					JLink Rate	1000	
✓ Enable 0x0	E:/Work/固件定制确认函/M61测试/S1/M61_S1_	_display_whole(1).bin		Browse		Refresh	
						Clear	
2. Choose Enable			3. Choose the firmware the	at you want		Log	
			J. to flash		0	pen Uart	
					Create	e & Download	1
			4. Check serial port a	nd baud rate an	d click this butto	ŋ	

COM Port: Select the COM port number connected to the chip (if there is no COM port displayed, click the "Refresh" button to refresh the COM port option), select 921600 for Uart Rate, click the "Create & Download" button to start downloading the firmware, when "ALL Success" is displayed, It means that the firmware download is complete.

The flashing success interface is as follows:

Ele View Help IOT MCU MFG Firmware Options partition table aes-encrypt key (16 bytes) iv (16 bytes) ecc-signature public key Browse private key Browse Single Download Options V Enable 0x0 E/Work/固件定制确认函/M61_%3(S1/M61_S1_display_whole(1).bin Browse Refresh					
Firmware Options Basic Options partition table Browse aes-encrypt key (16 bytes) iv (16 bytes) ecc-signature public key Browse private key Single Download Options JLink Rate V Enable 0x0 E:/Work/個件定制确认函M61/%试/S1/M61_S1_display_whole(1).bin					
partition table Browse Interface Uart aes-encrypt key (16 bytes) iv (16 bytes) Port/SN COM3 ecc-signature public key Browse Browse Uart Rate 921600 Single Download Options JLink Rate 1000 JLink Rate 1000 V Enable 0x0 E/Work/固件定制确认函/M61/测试/S1/M61_S1_display_whole(1).bin Browse Refresh					
aes-encrypt key (16 bytes) iv (16 bytes) Port/SN COM3 <					
aes-encrypt key (16 bytes) iv (16 bytes) Port/SN COM3 ▼ ecc-signature public key Browse private key Browse Uart Rate 921600 Single Download Options JLink Rate 1000 1000 Refresh					
ecc-signature public key Browse private key Browse Uart Rate 921600 Single Download Options JLink Rate 1000 ✓ Enable 0x0 E:/Work/图件定制确认经/M61测试/S1/M61_S1_display_whole(1).bin Browse Refresh					
Single Download Options ✓ Enable 0x0 E://Work/固件定制确认的//M61_%记//M61_S1_display_whole(1).bin Browse Refresh					
✓ Enable 0x0 E:/Work/固件定制确认函/M61测试/S1/M61_S1_display_whole(1).bin Browse					
Clear					
Log					
Open Uart					
Create & Download					
100%					
[14:33:17:33/] - F182U 1080 FTWE CO2F(MP): 17743-3573/40043/2					
[14:35:12.338] - Finished [14:35:12.356] - Sha caled by host: d4d4098324425d339d775c25a9d0674915e8532ec31f6085e67fd8e630db5183					
[14:35:12.357] - xip mode Verify					
[14:35:14.278] - Read Sha256/2320768 [14:35:14.279] - Flash xip readsha time cost(ms): 1920.9296875					
[14:35:14.279] - Finished [14:35:14.281] - Sha caled by dev: d4d4098324425d339d775c25a9d0674915e8532ec31f6085e67fd8e630db5183					
[14:35:14.282] - Verify success [14:35:14.287] - Program Finished					
[14:35:14.287] - All time cost(ms): 29946.106689453125					
[14:35:14.404] - close interface [14:35:14.405] - [All Success]					



1.3 AIPi-Eyes-S2 function test

Hardware preparation

Hardware	QTY
AIPi-Eyes-S2	1
Type-C cable	1
GC9307N,	1
3.5inch SPI interface	
capacitive touch screen	
speaker	1

Connect the screen, speaker, Type-C cable to the board.



1.3.1 Power-on test

Power on the Type-C interface that supplies power to the module, and the module uses 5V for power supply. After power on, the startup screen is as follows:





The main interface is as follows:











1.3.2 Configure WiFi

Swipe down from the top of the screen with your finger, you can see three buttons, click Network to enter the WiFi configuration interface.



Enter the WiFi name and password, and click Connect.



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After entering the correct WiFi name and password, the status will display the status of the connection, OK means success, and Fail means failure.



After successfully connecting to WiFi, the time will be updated to Beijing time synchronously. Note: the time required to restart the module will be re-timed, and WiFi needs to be re-entered.



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1.3.3 Button function test

Two buttons are provided in the main interface, which are switch and button. At present, the buttons have no redundant functions. Only the speaker responds to the state of the button after being pressed, and the voice broadcasts "turn on the switch" and "turn off the switch".

When the sleep button in the lower right corner is pressed, the screen will enter sleep mode. The screen will automatically enter sleep mode if there is no touch for 30s.

In sleep mode, the brightness of the screen is low and only the time is displayed.



Swipe down from the top of the screen with your finger and there will be three buttons, namely Network, Restore, and Info. The corresponding functions are, configure network, restart, and system information. After clicking info, the following information appears.



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