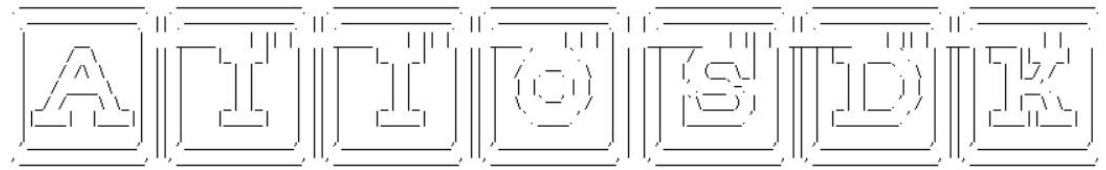


打开串口，波特率 921600log 如下



```
[31:22mE [34] [aio_main] (aio_mdns.c:197 aio_mdns_deinit) mdns already DeInit [0m
[36:22mI [36] [aio_main] (main.c:13 print_system_info) ##### [0m
[36:22mI [37] [aio_main] (main.c:14 print_system_info) company: Ai-Thinker B&T [0m
[36:22mI [38] [aio_main] (main.c:15 print_system_info) SDK version: 1.0.0 [0m
[36:22mI [39] [aio_main] (main.c:16 print_system_info) compile_time: Mar 6 2023 16:37:26 [0m
[36:22mI [40] [aio_main] (main.c:17 print_system_info) ##### [0m
[36:22mI [42] [aio_heap_check] (aio_heap_check.c:23 aio_heap_check) rtos fr----->>>>>>> LWIP tcp_port 63600
re heap size: 148k [0m
[32:22mD [44] [aio_main] (aio_wifi.c:285 aio_wifi_init) Start Wi-Fi fw @50ms
[0m
th channel_lo_yco_freq_cw=143
th channel_lo_yco_freq_cw=142
th channel_lo_yco_freq_cw=141
th channel_lo_yco_freq_cw=139
```

```

tosdac_i=27,tosdac_q=33,tx_iq_gain_comp=1012,tx_iq_phase_comp=-6
tosdac_i=22,tosdac_q=36,tx_iq_gain_comp=998,tx_iq_phase_comp=-6
tosdac_i=34,tosdac_q=34,tx_iq_gain_comp=996,tx_iq_phase_comp=-8
tosdac_i=33,tosdac_q=33,tx_iq_gain_comp=1012,tx_iq_phase_comp=-8
[WF][KEY][CFG] nVAP is 2, endidx 12, startidx 8
td_init
td_reset idx=0
td_reset idx=1
[32:22mD][140][aiio_main](aiio_wifi.c:288 aiio_wifi_init) Start Wi-Fi fw is Done @98ms
[0m
[lwip] netif status callback
IP: 192.168.4.1
MK: 255.255.255.0
GW: 192.168.4.1
Waiting Wi-Fi Mgr Start up...
[32:22mD][143][event_loop](aiio_wifi.c:53 event_ob_wifi_event)[APP][EVT] INIT DONE 143
[0m

[BL] Initi Wi-Fi with MAC ##### B4:E8:42:C7:B8:42 #####
hostname: Bouffalolab_BL602-c7b842
[WF] country code CN used, num of channel 13

[IPC][TX] Low level size 204, driver size 100, total size 304
Enable BMX IRQ
[WF][KEY][CFG] nVAP is 2, endidx 12, startidx 8
td_init
td_reset idx=0
td_reset idx=1
[version] lmac 5.4.0.0
[version] version_machw_1 000055FB
[version] version_machw_2 000001B3
[version] version_phy_1 00822111
[version] version_phy_2 00000000
[version] features 001089DF
[ME] HT supp 1, VHT supp 0
[WF][SM] reload tsen
[WF][SM] Exiting ifaceDown state
[WF][SM] State Action #####ifaceDown### -->>> #####idle###
[WF][SM] Entering idle state
mac:180:232:68:199:184:66
[32:22mD][164][event_loop](aiio_wifi.c:59 event_ob_wifi_event)[APP][EVT] MGR DONE 164, now 110ms
[0m
[36:22mI][166][aiio_main](wifi_config.c:128 aiio_softAP_start) mac:b4:e8:42:c7:b8:42[0m
[32:22mD][167][aiio_main](aiio_wifi.c:394 aiio_wifi_set_config) ap.ssid=axk_light_c7b842
[0m
[32:22mD][168][aiio_main](aiio_wifi.c:395 aiio_wifi_set_config) ap.password=
[0m
[32:22mD][169][aiio_main](aiio_wifi.c:396 aiio_wifi_set_config) ap.max_connection=1
[0m
[32:22mD][170][aiio_main](aiio_wifi.c:397 aiio_wifi_set_config) ap.channel=6
[0m
[32:22mD][171][aiio_main](aiio_wifi.c:398 aiio_wifi_set_config) ap.ssid_hidden=0
[0m
[32:22mD][173][aiio_main](aiio_wifi.c:399 aiio_wifi_set_config) ap.ssid_len=0
[0m
[WF][SM] Conf max sta supported 1...
[WF] MM_ADD_IF_REQ Sending: AP
td_start idx=0
[WF] MM_ADD_IF_REQ Done
[WF] vif_index from LAMC is 0
[DHCP] ip_start: [192.168.4.2]
[DHCP] ip_start: [192.168.4.101]
[WF][SM] start AP with ssid axk_light_c7b842;
[WF][SM] pwd :
[WF][SM] channel 6;
[WF] AFM_START_REQ Sending with vif_index 0
[WF] received AFM Start apm_start_req_handler:74
[WF] return with other handler
[WF] AFM_START_REQ Done
[WF] status is 00
[WF] vif_idx is 00
[WF] ch_idx is 00
[WF] bcmc_idx is 05
[32:22mD][187][event_loop](aiio_wifi.c:223 event_ob_wifi_event)[APP][EVT][AP][STARTED] 187, sta idx is 0
[0m
[32:22mD][3190][udp_task](wifi_config_comm_service.c:371 aiio_udp_start) recvfrom failed: errno[0m
[36:22mI][5044][aiio_heap_check](aiio_heap_check.c:23 aiio_heap_check) rto free heap size:121k[0m
[32:22mD][6191][udp_task](wifi_config_comm_service.c:371 aiio_udp_start) recvfrom failed: errno[0m

```



启动后模组自动进入配网模式等待接收数据

制作 NFC 标签（标签数据只用写入一次，之后直接使用即可）

打开“NFC 标签助手”（可以在应用商城中搜索下载）



选择“写入”->“URL”

≡ NFC标签助手

 文本 >
添加文本记录

 URL >
添加URL记录

 电话 >
添加电话号码

 名片 >
添加名片信息

 蓝牙 >
添加蓝牙连接

 WIFI >
配置WIFI网络

 应用 >
添加应用程序记录

 位置 >
添加位置信息

 数据 >
添加自定义记录

 收藏夹 >
收藏夹数据


读取


写入


其它

第一行选择 “https://”

第二行填入数据：

www.ai-thinker.com/app/assistant?mac=b4:e8:42:c7:b8:42&product=1

然后点击“添加到复合记录”（注意不能直接点确定，否则数据会互相覆盖）

注意中间的 mac 需要根据对应模组的 MAC 地址，否则会无法配网

添加记录

请输入URL ?

https://

www.ai-thinker.com/app/assistant?r

确定

添加到复合记录

如果提示格式错误可以选择“其它”->“存储区 NDEF 格式化”，格式化完成后重新写入



NFC标签助手



存储区NDEF格式化



复制标签



锁定标签



NFC指令模式



智能配网



读取



写入



其它

第一条数据写入完成后再次选择“写入”->“应用”



填入长沙博安通开发的配网 APP 名称 “com.aithinker.assistant” -> “添加到复合记

录”

← 添加记录 🔍

请输入程序包名 ②

com.aithinker.assistant

确定

添加到复合记录

选择“写入”->“复合记录”



点击“写入”

下午5:09

0.9K/s



复合记录



写入/109Bytes



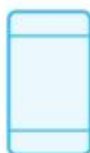
URL: 68 Bytes

<https://www.ai-thinker.com/app/assistant?mac=98:d:51:25:92:90&product=1>



应用: 41 Bytes

com.aithinker.assistant



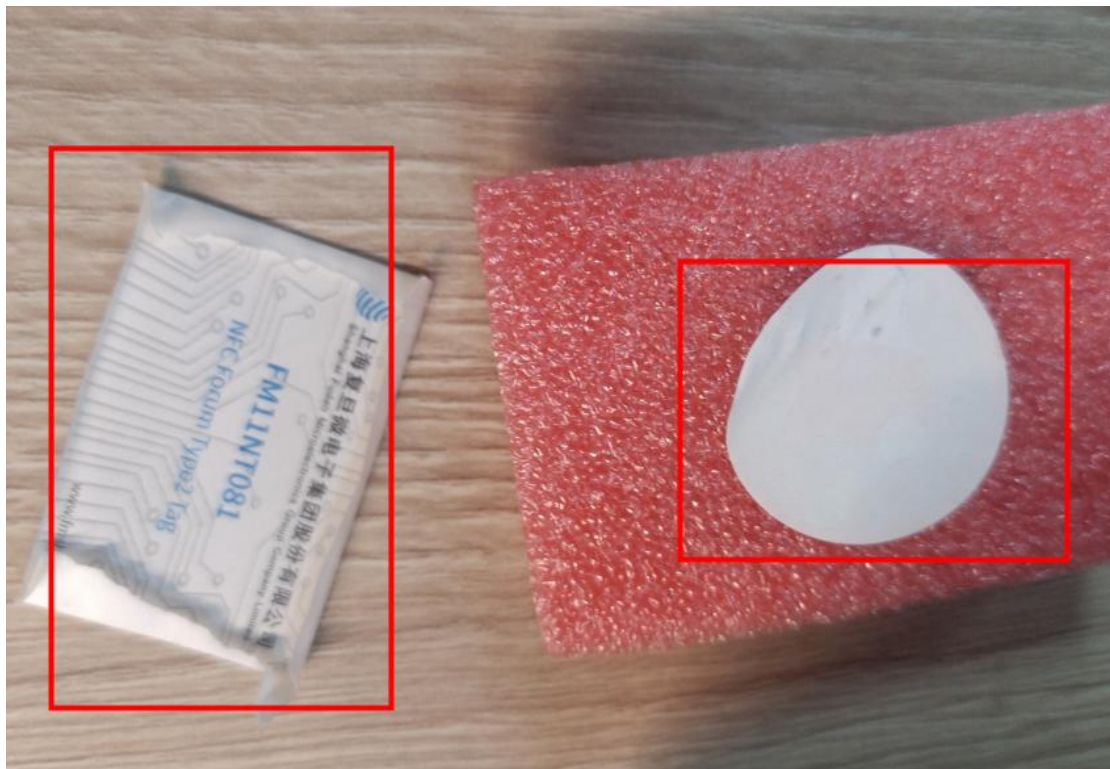
靠近NFC标签

取消



此时将 NFC 标签靠近手机感应区就会开始写入标签

注意：部分标签不支持写入（当前的白色硬卡无法写入，复旦微的标签和圆形白色标签可以写入）



手机端开启“安信可配网助手”APP 中获取安装包，安装包下载地址：[下载页面](#)



安装完成后不用点开，直接在桌面靠近 NFC 标签就会拉起配网，点击“立即配网”；
开始配网前确保如下条件以满足；

需要手机开启 NFC 功能；

如果设备之前已经在列表中需要先删除后重新开始配网；

手机连接需要配网的 wifi（同时需要开启自动连接功能，这个一般默认是开的）



NFC一触即连



将手机贴近NFC设备即可添加

灯



取消

立即配网

输入需要连接的网络的 SSID 和密码（手机也需要连接到当前网络，注意仅支持 2.4G 频段）



NFC一触即连



将手机贴近NFC设备即可添加

选择Wi-Fi

HUAWEI 

..... 

☒ 记住密码

取消

继续

此时显示正在搜索设备



NFC一触即连



将手机贴近NFC设备即可添加

灯



正在搜索设备...

找到设备之后会提示是否连接到设备，此时点击“连接”



配网过程中会显示“正在配网中”



NFC一触即连



将手机贴近NFC设备即可添加

灯



 正在配网中...

配网成功后结果如下



灯
在线



灯

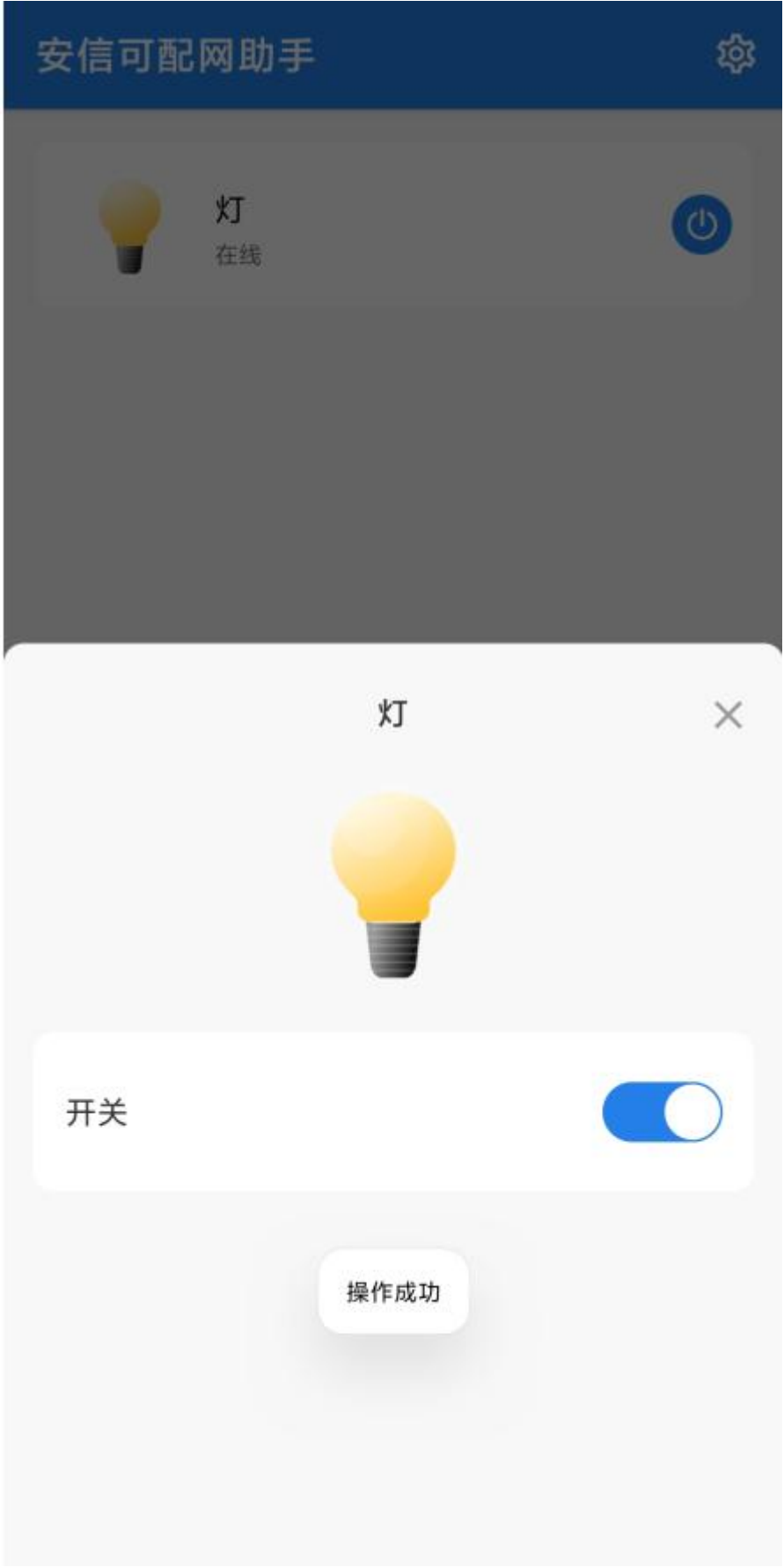


设备配网成功

进入首页

控制设备

点击控制设备可以进入控制页面（板子复位后需要重新配网）



配网过程中模组会打印收到的 SSID 和密码

```

[17:40:58.860]收←◆[32:22mD | [18195] [udp_task] (wifi_config_comm_service.c:371 aioo_udp_start) recvfrom failed: errno[0m
[17:40:59.831]收←◆[32:22mD | [19165] [event_loop] (aioo_wifi.c:263 event_cb_wifi_event) [APP] [EVT] Unknown code 24, 19165
[0m
[17:41:00.130]收←◆→ AABA Request:
A-MSDU: Permitted
Block Ack Policy: Immediate Block Ack
TID: 0
Number of Buffers: 64
→ AABA Response:
A-MSDU: Not Permitted
Block Ack Policy: Immediate Block Ack
TID: 0
Number of Buffers: 8
ssn: 0
timeout: 17
tid 0
[17:41:00.418]收←◆[32:22mD | [19752] [udp_task] (wifi_config_comm_service.c:379 aioo_udp_start) socke id :0Received 112 bytes from 192.168.4.2[0m
[36:22mI | [19756] [udp_task] (wifi_config_comm_service.c:187 _app_handle_recv_data) cmd:1[0m
[32:22mD | [19758] [udp_task] (wifi_config_comm_service.c:195 _app_handle_recv_data) ssid:HUAWEI[0m
[32:22mD | [19759] [udp_task] (wifi_config_comm_service.c:203 _app_handle_recv_data) password:12345678909[0m
[32:22mD | [19760] [udp_task] (wifi_config_comm_service.c:208 _app_handle_recv_data) bssid:000000000000[0m
[36:22mI | [19763] [udp_task] (wifi_config_comm_service.c:132 _app_reply_dev_info) port:65786[0m
[32:22mD | [19766] [udp_task] (wifi_config_comm_service.c:141 _app_reply_dev_info) Report dev info(119): {
    "cmdType": 2,
    "code": 0,
    "message": "success recv data",
    "deviceName": "b4e842c7b842",
    "protoVersion": "1.0.0"
}
[0m
[WF][SM] stateGlobalGuard AP: AP iface has started!
[WF][SM] Removing and deauth all sta client...
[WF] AFM_STA_DEL_REQ: sta_idx = 0, vif_idx = 0
[WF]
[17:41:00.485]收←◆ AFM_STA_DEL_IND
[WF] sta_idx 0
[WF] status_code 1
[WF] reason_code 2
[EX] disconnect reason: User delete STA
[WF][SM] Stopping AP interface...
[WF] AFM_STOP_REQ Sending with vif_index 0
[WF] AFM_STOP_REQ Done
[WF][SM] Removing AP interface...
[WF] MM_REMOVE_IF_REQ Sending with vif_index 0...
td_reset_idx=0
[WF] MM_REMOVE_IF_REQ Done
[WF][SM] Stopping DHCP on AP interface...
[WF][SM] Removing ETH interface ...
[fwip] netif status callback
IP: 192.168.4.1
MK: 255.255.0
GW: 0.0.0.0
[32:22mD | [19781] [event_loop] (aioo_wifi.c:253 event_cb_wifi_event) [APP] [EVT] [AF] [DEL] 19781, sta_idx is 0
[0m
[32:22mD | [19783] [event_loop] (aioo_wifi.c:233 event_cb_wifi_event) [APP] [EVT] [AF] [STOPPED] 19783, sta_idx is 0
[0m
[17:41:00.632]收←◆Recovery MAC...
[17:41:00.712]收←◆[36:22mI | [20047] [aioo_heap_check] (aioo_heap_check.c:23 aioo_heap_check) rtos free heap size:121k[0m
[17:41:01.150]收←◆STA enable
[fwip] netif status callback
IP: 0.0.0.0
MK: 0.0.0.0
GW: 0.0.0.0
wifi_mgr_set_country_code:code = CN
[WF] country code CN used, num of channel 13
[32:22mD | [20488] [udp_task] (aioo_wifi.c:363 aioo_wifi_set_config) sta.ssid=HUAWEI
[0m
[32:22mD | [20489] [udp_task] (aioo_wifi.c:364 aioo_wifi_set_config) sta.password=12345678909
[0m
[32:22mD | [20490] [udp_task] (aioo_wifi.c:365 aioo_wifi_set_config) sta.bssid=00:00:00:00:00:00
[0m
[32:22mD | [20492] [udp_task] (aioo_wifi.c:366 aioo_wifi_set_config) sta.band=0
[0m
[32:22mD | [20493] [udp_task] (aioo_wifi.c:367 aioo_wifi_set_config) sta.channel=1
[0m
Enable Auto Reconnect
[17:41:02.771]收←◆wifi_mgr band:0 freq: 2412
[WF][SM] currentState is Idle
[WF] MM_ADD_IF_REQ Sending: STA
td_start_idx=1
[WF] MM_ADD_IF_REQ Done
[WF] vif_index from LMAC is 1
[WF][SM] Exiting idle state
[WF][SM] Action Connect
ssid HUAWEI
ssid len 6
passphr 12345678909
passphr len 11
puk 61442C0DAD1D9D30DEC686D67A9775E79A558FC9518EF7EA779491E973A3E873
puk len 64
band 0
freq 2412
bssid 00:00:00:00:00:00
dhcp status: true
flag: 0

```

点击开灯时，开发板蓝灯会被点亮，收到控制指令后如下

```

    "port": 602,
    "protoVersion": "1.0.0"
}
[0m
[17:59:33.295]收←◆[32:22mD | [48479] [udp_task] (
[17:59:33.320]收←◆wifi_config_comm_service.c:379 aioo_udp_start) socke id :0Received 64 bytes from 192.168.3.139[0m
[36:22mI | [48482] [udp_task] (aioo_local_control.c:104 aioo_local_control_protocol_analysis) id=1911339311, method=control, params.switch=1[0m
[32:22mD | [48485] [udp_task] (aioo_local_control.c:180 aioo_local_control_send_response_control) [14]: 1911339311, method: control_reply, code:0[0m
[36:22mI | [48488] [udp_task] (wifi_config_comm_service.c:308 aioo_udp_write) udp write data:192.168.3.139.46806[0m
[17:59:33.697]收←◆[36:22mI | [48881] [mdns_task] (wifi_config_comm_service.c:286 udp_radiate_result) port:46806[0m
[32:22mD | [48885] [mdns_task] (wifi_config_comm_service.c:295 udp_radiate_result) Report dev info(112): {
    "cmdType": 3,
    "ip": "192.168.3.174",
    "deviceName": "b4e842c7b842",
    "port": 602,
    "protoVersion": "1.0.0"
}
[0m

```

点击关灯时，开发板蓝灯会被关闭，收到控制指令后如下

>s tree heap size:9/kLlUm

```
i:22:29.783]收←◆[32:22mD | [195651] [udp_task] (wifi_config_comm_service.c:388 aiao_udp_start)
;ke id :0Received 64 bytes from 192.168.3.103[0m
[36:22mI | [195653] [udp_task] (aiio_local_control.c:104 aiao_local_control_protocol_analysis)
=1717970089, method=control, params.switch=0[0m
[32:22mD | [195655] [udp_task] (aiio_local_control.c:180 aiao_local_control_send_response_control)
;d":1717970089,"method":"control_reply","code":0}[0m
[36:22mI | [195657] [udp_task] (wifi_config_comm_service.c:317 aiao_udp_write) udp write
:a:192.168.3
i:22:29.826]收←◆.103:37395[0m

i:22:32.792]收←◆[32:22mD | [198660] [udp_task] (wifi_config_comm_service.c:388 aiao_udp_start)
```