不安装开发环境直接更新固件方法

一、安装 ST-LINK 驱动程序

打开专业版技术资料内的开发环境和软件安装包,ST-LINK 驱动目录,安装 STLINK 驱动,默认选项及安装即可。



安装完成后,桌面有 STM32 ST-LINK Utility 图标



二、连接 STLINK 模块和 UWB 模块

ULM1 和 ULM3 模块没有外壳, SWD 接口在板子上直接连接 STLINK 模块, 注意 4 条杜邦线一一对应



LD150 和 LD600 模块有外壳,先用一字螺丝刀将顶盖撬开,再连接电路板上的 SWD 烧录接口





三、烧录固件

1、设置软件复位

5 STM32 ST-LINK U	Jtility			_		\times
File Edit View	Target ST-LINK External Loader Help					
Memory display	Connect Disconnect CTRL+D		Device			
Address: 0x0800	Erase Chip CTRL+E Erase Bank1	~	Device ID Revision ID Flash size			
Device Memory File	Erase Bank2				LiveU	pdate
Device Memory	Erase Sectors	_			_	_
	Program Program & Verify CTRL+P					
	Blank Check Memory Checksum Target memory compare with file					
	Option Bytes CTRL+B					
	MCU Core					
	Automatic Mode					
17:26:18 : No ST-LIN	Settings					_
1						
1						

STM32 ST-LINK Utility		- 🗆 X
File Edit View Target ST-LINK	Settings ×	
Memory display Address: 0x0800000 Size:	ST-LINK Serial Number No ST-LINK detected !	
Device Memory File : HR-RTLS1_DW3000	CTM22 Terret leferentier	LiveUpdate
Device Memory	Target	
	Target Voltage	
	Connection settings Port	
	JTAG SWD Frequency	
	Access Port Access Port 0	
	Mode	
	Normal 🗸 🖉 Enable debug in Low power mode	
17:26:18 : No ST-LINK detected ! 17:27:55 : No ST-LINK detected !	Reset Mode Software System Reset	
	Log File Generate Trace LOG File Open Containing Folder	
	OK Cancel	
Disconnected	Device ID : Core State : No Memo	ory Loaded

2、点击 Target-Connect

5 STM32 ST-LINK U	Itility			_		×
File Edit View Ta	arget ST-LINK Externa	il Loader <mark>F</mark> elp				
	Connect					
Memory display	Disconnect	CTRL+D	Device			
Address: 0x0800	Erase Chip Erase Bank1	CTRL+E	Device ID Revision ID			
Device Memory File [HR-RTLS1.hex], Add	Erase Bank2 Frase Sectors		Flash size			
Address	21050 000001011					^
0x0800000	Program Program & Verify	CTRL+P	15			_
0x08000010	Blank Check		= A			_
0x08000020	Memory Checksum		E			
0x08000030	Compare device mem	ory with [HR-RTLS1.hex]	MQ			_
0x08000040	Option Bytes	CTRL+B				1
0x08000050	MCU Core		?			_
0x08000000	Automatic Mode					
<	Settings					`
16:14:35 : [HR-RTLS1.he 16:14:35 : [HR-RTLS1.he	:x] opened successfully. :x] checksum : 0x004CC050					
Disconnected		Device ID :	Core State : No Memory G	irid Selecte	d	

3、如连接模块正确,状态栏会提示以下 MCU 信息

👼 STM32 ST-LII	NK Utility						_		\times
<u>F</u> ile <u>E</u> dit <u>V</u> iew	Target ST-	LINK Extern	al Loader <u>H</u> e	elp					
当 🖥 🖕	🤹 🏈 🗭	🔊 🐝							
Memory display						Device	STM32F10xx Medium-density		
Address Duogo	00000	0	Data Mid	the log hits		Device ID	0x410		
Address: UXU80	JUUUUUU 🗸 Size	0x290A4	Data widi			Revision ID	Unknown		
						Flash size	128KBytes		
Device Memory @	0x08000000: Fi	e : HR-RTLS1.h	ex					LiveUp	date
Target memory, Add	dress range: [0x08	000000 0x0802	90A4]						
Address	0	4	8	С	ASCII				^
0x0800000	20001758	08000101	08000731	08000735	х				
0x08000010	08000739	0800073D	08000741	0000000	9	= A			
0x08000020	00000000	0000000	0000000	08000745		E			
0x08000030	08000749	0000000	0800074D	08000751	1	M Q .			
0x08000040	0800011B	0800011B	0800011B	0800011B					
0x08000050	0800011B	0800011B	08000781	0800011B		?			
0x08000060	0800011B	0800011B	0800011B	0800011B					
0x08000070	0800011B	0800011B	0800011B	0800011B					~
<								1	>
16: 16: 44 : ST-LINK 16: 16: 44 : V2J35S7 16: 16: 44 : Connect 16: 16: 44 : SWD Fre 16: 16: 44 : Connect	strict Cleans SN : 3A26090026 d via SWD. quency = 4,0 MH: ion mode : Connec	7. 0000-20030 12344D314B4E0 z. tt Under Reset.	0						^
16:16:44 : Device I 16:16:44 : Device f 16:16:44 : Device f	D:0x410 lash Size : 128KBy amily :STM32F10x	endbled. tes x Medium-densit	y						~
Dahua ia Law Dawa	made enabled		Davias ID:0:4	10			Sava Ghaba y Livia Undata Disablad		_

4、连接成功后,点击 Target-Erase Chip,擦除单片机 flash

🚟 STM32 ST-LINK (Utility			-		\times
<u>File E</u> dit <u>V</u> iew <u>T</u> a	arget ST-LINK External I	Loader <u>H</u> elp				
Memory display	Connect Disconnect	CTRL+D	Device	STM32F10xx Medium-density		
Address: 0x080	Erase Chip Erase Papk1	CTRL+E	Device ID Revision ID	0x410 Unknown		
Device Memory @ 03 Target memory, Addr	Erase Bank2 Erase Sectors		Hash size	128KBytes	LiveU	pdate
Address 0x08000000	Program Program & Verify	CTRL+P	15.			^
0x08000010 0x08000020 0x08000030	Blank Check Memory Checksum Compare device memo	ny with [HR_RT \$1 hev]	= A E M Q .			
0x08000040 0x08000050	Option Bytes	CTRL+B	?			_
0x08000060 0x08000070	Automatic Mode					~
10.17.33 . [INTEL314] 16:16:44 : ST-LINK SN : 16:16:44 : V2135S7	Settings Exj crecksom - 0x00 (CC030 3A2609002612344D314B4E00					>
16:16:44 : Connected vi 16:16:44 : SWD Frequer 16:16:44 : Connection m 16:16:44 : Connection m 16:16:44 : Debug in Low 16:16:44 : Device flash t 16:16:44 : Device flash t 16:16:44 : Device family	ia SWD. ncy = 4,0 MHz. node : Connect Under Reset. / Power mode enabled. 410 Size : 128/KBytes ::STM32F10xx Medium-density					>
, Debug in Low Power mod	le enabled.	evice ID:0x410		Core State : Live Update Disabled		

5、擦除后,选择 Target-Program&Verify 写入新固件

STM32 ST-L	NK Utility	e device memory war			×
	Tarat CTUNK Esternal Landan Unio				~
File Edit Viev	Iarget ST-LINK External Loader Help				
🖴 🗖 🗳	Connect				
Memory display	Disconnect CTRL+D	Device	STM32F10xx Medium-density		
Address 0.00	Erase Chip CTRL+E	Device ID	0x410		
Address: 0x08	Frase Bank1	Revision ID	Unknown		
Device Memory @	D Erace Bank?	Flash size	128KBytes	_	
Target memory Ad	dr Erase Castern	<u> </u>		LiveU	pdate
Target memory, Ad	Erase Sectors				^
Address	Program				_
0x08000000	Program & Verify CTR +P				_
0x08000010	Blank Check				
0x08000020	Memory Checksum				
0x08000030	Compare device memory with [HR-RTLS1.hex]				
0x08000040	Option Bytes CTRL+B				
0x08000050	MCU Core				
0x08000060					
0x08000070	Automatic Mode				~
<	Settings				>
16:16:44 : V2J35S	7	-			^
16:16:44 : Connec	ted via SWD.				
16:16:44 : Connec	tion mode : Connect Under Reset.				
16:16:44 : Debug i	n Low Power mode enabled.				
16:16:44 : Device	flash Size : 128KBytes				
16:16:44 : Device 1	family :STM32F 10xx Medium-density				
10:21:00 ; FidSh M	eniory erased.				\checkmark
Debug in Low Powe	r mode enabled. Device ID:0x410		Fore State : Live Undate Disabled		

6、点击 Browse 选择需要更新的固件*.hex 文件

STM32 ST-LIN	< Utility					_		\times
File Edit View	Target ST	T-LINK Extern	al Loader Help					
🖴 🖥 🛛 🖖 <	Ç. 🤣 🦆	🏂 🧝 🕺						
Memory display				Device	STM32F10xx Me	dium-density		
Address: 0x0800	10000 V Si	7e: 0x290A4	Data Width: 32 bits	Device ID	0x410			
Address. 0x0000		0,250,44		Revision ID	Unknown			
Device Memory @ 0	x08000000 :	Download [HR	-RTLS1.hex]		×			
[HR-RTLS1.hex], Add	ress range: [0	Charl a daharan	0-02000000					
Address	0							^
0x0800000	20001758	File path	C:\Users\sunhao\Desktop\HR-RTLS1.	.hex	Browse			
0x08000010	08000739	Extra options	Skip Flash Erase	Skip Flash Protectio	on verification			
0x08000020	00000000	Verification						
0x08000030	08000749	* child dioin	Verify while programming	Verify after program	iming			
0x08000040	0800011B	Click "Start" to p	rogram target.					
0x08000050	0800011B							
0x08000060	0800011B	Alter programm	in a					
0x08000070	0800011B	Aner programm	Inng ☑ Res <mark>et after programming </mark>	Full Flash memory (Checksum			~
<								>
10.27.10 . V233337 16:24:18 : Connected	d via SWD.		Start Cance	1	[^
16:24:18 : SWD Freq	uency = 4,0 M	IHZ.						
16:24:18 : Connectio	n mode : Conn	nect Under Reset.						
16:24:18 : Device ID	:0x410	ue enabled.						
16:24:18 : Device fla	sh Size : 128K	Bytes						
16:24:18 : Device far	mily:STM32F1(0xx Medium-densit	У					
16:24:20 : [HR-RTLS	1.hex] checksu	um : 0x004CC050						
								~
Debug in Low Power n	mode enabled.		Device ID:0x410		Core State : No Me	emory Grid Selecte	:d	

7、点击 start 开始烧录,烧录进度条结束后,新固件程序自动运行。

如升级过程中提示无法连接目标单片机,请检查接线是否正确,如 确认接线正确,请尝试升级 STLINK 后再次连接。<u>(如果能正常烧</u> 录程序就不用操作升级 STLINK!!!)



升级时候,断开 STLINK 连接的任何设备,拔掉杜邦线,只 STLINK 连接电脑,关闭 KEIL MDK 等其他占用 STLINK 的软件!

升级方法视频:

https://www.bilibili.com/video/BV1fs4y1U7dZ/?share_source =copy_web&vd_source=326b8753440a1de66b445316a1c032 a7