

## 红外学习器 IRL2 的简单使用

准备工作:





## 1, 红外学习器用 USB 线连接到调试用的电脑, 安装驱动。

## 2, gl 连接电源,使用 g!tools 进入编程软件。

	System Name	System Description	LastPost	Remote Address : Port	Local Address : Port	Version	Connection	Port	Notes	
Software	g1 F8-57-2E-00-23-E5	NOT SET	-		-	I			1	×
My Systems	g1 F8-57-2E-00-24-83	0.0.0.0	-	121. 34.169.161:2198	-	7.1 Build 667.0 Rel			1	×
etwork Manager	g1 F8-57-2E-00-24-EC	NOT SET	-	114.228.105.167:2198	-	7.1 Build 667.0 Rel			1	X
rmware Manager	HC Series 00-14-2D-40	0.0.0.0	-	113. 90. 17.6:2198	-	6.8 Build 19.0 Rel			1	X
	HC Series 00-14-2D-40	0.0.0.0	-	14. 20. 5.63:2198	-	6.9 Build 49.0 Rel			1	X
ocumentation	HC Series 00-14-2D-40		70	118.186.153.187:2198	-	6.6 Build 12.0 Rel			1	X
Documents	HC Series 00-14-2D-40	0.0.0.0	-		192.168. 0. 60:80				1	×
Online Help	HC Series 00-14-2D-40	0.0.0.0	-	114. 99.176.62:2198	-	6.8 Build 19.0 Rel			1	×
	HC Series 00-14-2D-40	0.0.0.0	-						1	×
Library	HC Series 00-14-2D-40		-	180.110.211.5:2198	-	6.9 Build 49.0 Rel			1	×
IR	MRC6430 F8-57-2E-00-1	5	-		-				1	X
Serial	MRC6430 F8-57-2E-00-2		-		192.168. 0.133:80				1	X
Language	SC F8-57-2E-00-02-17		-2	123.121. 4.124:2198	-	7.1 Build 559.0 Rel			1	X
Icon	SC F8-57-2E-00-02-D0			223. 223. 198. 213: 2198	-	7.0 Build 168.0 Rel			1	X
	SC F8-57-2E-00		-	121. 34. 170. 176 : 2198	192.168. 0. 21:80				1	X
Settings	SC F8-57-2E-00-04-2A:		-		-				1	X
Update	SC F8-57-2E-00-04-2A		-	118.187.25.101:2198	÷-	7.1 Build 667.0 Rel			1	×
	SC F8-57-2E-00-05-54	192.168.1.10	-	112.238.218.98:2198	-	7.1 Build 667.0 Rel			1	×
	SC F8-57-2E-00-22-91		-		-				1	X
	Options	Refresh T.	otal Systems = :	W System Nar Passwo: 32	ne SC F8-57-2E-00-85		Viewer Configurato Key Manage	) Tra	Wide dition:	• al

3, 去到一级菜单 input/output , 在 IR Devices 右键 选择 Add New IR Device 添加新的红外 设备。



4,在出现的窗口中可以选择红外设备的模版,也可以直接选择空模版(NONE),重命名



红外设备后,点击OK。

Device Name New IR D	Device	
Default Code Set		
< NONE S		
AM/FM Tuner	<u></u>	
Annie TV	=	
BLURay	-	
Cable		
CD Player		
CD/DVD Changer		
DirecTV		
Dish	<b>x</b>	
Ca	ancel OK	
洗择了 BLU Rav ジ	忝加完毕后如下, 可以看到	已经建立了许多按键
Communication Devices		
Communication Devices	IR Device : DVD	
Communication Devices Sense Inputs Relay Outputs	IR Device : DVD	DVD
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices	IR Device : DVD	DVD
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices	IR Device : DVD Name System #	DVD 2074
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers	IR Device : DVD Name System # Default Sender	DVD 2074 < SELECT >
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers IR Devices	IR Device : DVD Name System # Default Sender RC5 Codeset	DVD 2074 < SELECT > No
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers IR Devices IR Devices	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device	DVD 2074 < SELECT > No No
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers IR Devices PVD Power On	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type	DVD 2074 < SELECT > No No Cable (Type 1)
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers IR Devices PVD Power On Power On	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Dicite (0 Redding)	DVD 2074 < SELECT > No No Cable (Type 1)
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers IR Devices PVD Power On Power Off Play	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Digits (0 Padding)	DVD 2074 < SELECT > No No Cable (Type 1) 0
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Receivers IR Devices POVD Power On Power Off Play Stop Stop Pause	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Digits (0 Padding) Pre-Tune Command	DVD 2074 < SELECT > No No Cable (Type 1) 0 < NONE >
Communication Devices Sense Inputs Ceneric Serial Devices IR Outputs IR Receivers IR Devices POVD POwer On Power Off Play Stop Pause Rewind	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Digits (0 Padding) Pre-Tune Command Post-Tune Command	DVD 2074 < SELECT > No No Cable (Type 1) 0 < NONE > < NONE >
Communication Devices Sense Inputs Ceneric Serial Devices IR Outputs IR Receivers IR Devices POVD Power On Power Off Play Stop Pause Rewind Fast Forward	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Digits (0 Padding) Pre-Tune Command Post-Tune Command Delay Between Commands	DVD 2074 < SELECT > No No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Ceneric Serial Devices IR Outputs IR Receivers IR Devices POVD Power On Power Off Play Stop Pause Rewind Fast Forward Digit 0	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Digits (0 Padding) Pre-Tune Command Post-Tune Command Delay Between Commands	DVD 2074 < SELECT > No No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Generic Serial Devices IR Outputs IR Receivers IR Devices PVD Power On Power Off Play Stop Pause Rewind Fast Forward Digit 1	IR Device : DVD Name System # Default Sender RC5 Codeset Decode IR from this device Tuning Type Minimum Digits (0 Padding) Pre-Tune Command Post-Tune Command Delay Between Commands	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Generic Serial Devices IR Outputs IR Receivers IR Devices IR Devices POWE On Power On Play Stop Play Stop Rewind Fast Forward Digit 0 Digit 1 Digit 2	<ul> <li>IR Device : DVD</li> <li>Name</li> <li>System #</li> <li>Default Sender</li> <li>RC5 Codeset</li> <li>Decode IR from this device</li> <li>Tuning Type</li> <li>Minimum Digits (0 Padding)</li> <li>Pre-Tune Command</li> <li>Post-Tune Command</li> <li>Delay Between Commands</li> </ul>	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Devices IR Devices DVD Power On Power Off Play Stop Pause Rewind Rewind Digit 1 Digit 2 Digit 3	<ul> <li>IR Device : DVD</li> <li>Name</li> <li>System #</li> <li>Default Sender</li> <li>RC5 Codeset</li> <li>Decode IR from this device</li> <li>Tuning Type</li> <li>Minimum Digits (0 Padding)</li> <li>Pre-Tune Command</li> <li>Post-Tune Command</li> <li>Delay Between Commands</li> </ul>	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices IR Outputs IR Devices IR Devices DVD Power On Power Off Play Stop Pause Rewind Rewind Fast Forward Digit 1 Digit 2 Digit 3 Digit 4	<ul> <li>IR Device : DVD</li> <li>Name</li> <li>System #</li> <li>Default Sender</li> <li>RC5 Codeset</li> <li>Decode IR from this device</li> <li>Tuning Type</li> <li>Minimum Digits (0 Padding)</li> <li>Pre-Tune Command</li> <li>Post-Tune Command</li> <li>Delay Between Commands</li> </ul>	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Generic Serial Devices IR Outputs IR Outputs IR Devices IR Devices DVD Power On Power Off Play Stop Pause Rewind Fast Forward Digit 0 Digit 1 Digit 2 Digit 3 Digit 4 Digit 5	<ul> <li>IR Device : DVD</li> <li>Name</li> <li>System #</li> <li>Default Sender</li> <li>RC5 Codeset</li> <li>Decode IR from this device</li> <li>Tuning Type</li> <li>Minimum Digits (0 Padding)</li> <li>Pre-Tune Command</li> <li>Post-Tune Command</li> <li>Delay Between Commands</li> </ul>	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Generic Serial Devices IR Outputs IR Receivers IR Devices DVD Power On Power Off Power Off Play Stop Rewind Fast Forward Digit 0 Digit 1 Digit 2 Digit 3 Digit 4 Digit 5 Digit 6	<ul> <li>IR Device : DVD</li> <li>Name</li> <li>System #</li> <li>Default Sender</li> <li>RC5 Codeset</li> <li>Decode IR from this device</li> <li>Tuning Type</li> <li>Minimum Digits (0 Padding)</li> <li>Pre-Tune Command</li> <li>Post-Tune Command</li> <li>Delay Between Commands</li> </ul>	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec
Communication Devices Sense Inputs Relay Outputs Generic Serial Devices Relay Outputs Receivers Revices Power On Power Off Power Off Power Off Pause Revind Fast Forward Digit 0 Digit 1 Digit 2 Digit 2 Digit 3 Digit 4 Digit 5 Digit 6 Digit 7	<ul> <li>IR Device : DVD</li> <li>Name</li> <li>System #</li> <li>Default Sender</li> <li>RC5 Codeset</li> <li>Decode IR from this device</li> <li>Tuning Type</li> <li>Minimum Digits (0 Padding)</li> <li>Pre-Tune Command</li> <li>Post-Tune Command</li> <li>Delay Between Commands</li> </ul>	DVD 2074 < SELECT > No Cable (Type 1) 0 < NONE > < NONE > 250 msec

我们点击一个按键,可以看到右边属性栏中是显示没有代码的,这就需要我们用红外学习器 学习。



+ 😴 Communication Devices	IR Code : Power	On		
🕂 🛲 Relay Outputs	Name	Power On		
📟 Generic Serial Devices	Sustan #	2077		
🕂 📫 IR Outputs	System #	2011		
🕂 📭 IR Receivers	Carrier	0 HZ		
💻 🎟 IR Devices	Repeat	1		-
DVD	Universal Function	Power On		<b>v</b>
🗰 Power On 💽		-		
Bell Power Off	CCF Code		<< Preamble	Preamble >>
🗰 Play	EDDOD: Logald			
🗰 Stop	Endescore: Invania (			
He Pause				
🗰 Rewind				
HII Fast Forward				
🗰 Digit 0				
🗰 Digit 1				
HII Digit 2				
III Digit 3				
ille Digit 4				
HH Diait 5				
ILLI Digit 6				in the second

	Repeat 1 Universal Function Stop	
Hill Power On Hill Power Off	CCF Code	<< Preamble
HH Play	ERROR: Invelid Code	
H Pause H Rewind Fast Forward		
IIII Digit 0 IIII Digit 1 IIII Digit 2		
IIIII Digit 3 IIIII Digit 4 IIIII Digit 5		
Digit 5		

5,开始学习代码,在红外设备的名字右键选择 learn IR codes 学习整个设备的 红外码;

在某个按键右击选择 learn this code 学习这个按键的红外码。如下两图:

HII Power Of	Add New IR Device Add New IR Code Delete DVD		
HH Stop HH Pause HH Rewind HH Fast Forv	Import from File Export to File Import New IR Device from File		
IIIII Digit 0	Learn IR Codes		
HH Digit 2	Set Repeat Count for All Codes		



📑 🎟 DVD	Liniversal Eurotic			
Power On	Diliversai i uncuo			
Power Off	Add New IR Code			
🗰 Play	Delete Power On Create Event Map For Test Code Now			
HH Stop				
₩₩ Pause ₩₩ Rewind				
Fast Forward	Learn This Code			
Digit 0	Remove Repeats			

6,在弹出的串口选择 local receiver 为下图所示的设备,就是我们的红外学习器了。

IR Code			Start
Power On			Stop
Power Off			
Play			
Stop			
Pause			
Fast Forward			
Digit 0			
Digit 1			
Dia# 2		-	
End Time	100 msec		-
Local Receiver	NONE		•
	NONE		
	Silicon Labs CP210x USB to UART Bridge (COM3)		
			-
Doody Droop Start	to Pagin	F	5.55
Ready, Press Start	to begin		Done

选择设备后,点击 start 开始学习,它就从第一个红外码开始学习



ARNING CODE	PRESS 'Power On' KEY		×
IR Code - capturing	) Part A		Start
Power On Power Off Play Stop Pause Rewind Fast Forward Digit 0 Digit 1		• •	Stop
End Time	100 msec		~
Local Receiver	Silicon Labs CP210x USB to UART Bridge (COM3)		¥
Local Port Opene	d OK		*
LEARNING CODE:	PRESS 'Power On' KEY		- Done

6,用遥控器对准学习器的 IR in sensor。手动开始按下遥控器对应的按钮学习。红外学习器 接收到红外码后 IR IN DETECT 指示灯会闪烁。

	in the second	and the second s	
	M	MODEL: IRL2 IR LEARNER	A A A A

学习成功后,会自动跳到下一个按键进行学习,这样一个一个按下按钮后,就可以把全部的 都学习完。



LEARNING CODE:	PRESS 'Power C	Off' KEY	
IR Code - capturing	Part A		Start
Power On Play Stop Pause Rewind Fast Forward Digit 0 Digit 1			Stop
End Time	100 msec	Eccle 	
Local Receiver	Silicon Labs CP	210x USB to UART Bridge (COM3)	· ·
,21,10700	PRESS 'Power Off	KFY	*
如果模版上没 一	有那你需要 VD Power On Play Stop Pause Rewind Fast Forwa Digit 0 Digit 1	的代码,请自己手动添加新 Univers Add New IR Code Delete Power On Create Event Map For Test Code Now Learn This Code Remove Repeats	, 的红外码,再进行学习。 al Func
Communica     Sense Inpu     Sense Inpu     Sense Inpu     Sense Inpu     Generic Se     I    IR Cutputs     I    IR Receiver     IIR Receiver     IIR Reverse     III R Power C     III Power C     III Pay     III Pay     III Stop     III Rewind     III Fast Fo     III Digit 0     III Digit 2     III Digit 3     III Digit 4	ningurator (Presi ation Devices ts uts rial Devices 's Dn Dff	Repeat 1 Universal Function Power CCF Code Time 513 msecc	On Hz On Con Con



这样才算完成。

7,最后把红外棒一端插入到主机的红外输出口,并把红外棒贴在红外设备的红外输入窗口 上。在红外设备的属性栏里配置对应的红外输出口。

🕂 🔹 Communication Devices			
🕂 🐇 Sense Inputs			
🕂 🛲 Relay Outputs	Name	DVD	
📟 Generic Serial Devices	Custom #	2074	
🕂 📫 IR Outputs	System #	2014	
+ IR Receivers	Default Sender	IR Output 01	<b></b>
📃 🎟 IR Devices	RC5 Codeset	No	
DVD	Decode IR from this device	No	-
Power On			
🗰 Power Off	Tuning Type	Cable (Type 1)	
Play	Minimum Digits (0 Padding)	0	•
stop	Pre-Tune Command	< NONE >	•
🗰 Pause	Post-Tune Command	< NONE >	
Rewind			
Here Fast Forward	Delay Between Commands	250 msec	<u> </u>
🗰 Digit 0			

右击对应的代码,选择 test code now,测试发送该代码,看看设备是否有对应动作。

E E DVD		Universal F	unction
Power On			
Here Power Off	Add New I	R Code	
🗰 Play	Delete Pow	ver On	
Stop	Create Eve	nt Map For	
📲 Pause			
Rewind	Test Code Now		
Fast Forward	Learn This	Code	
🗰 Digit 0	D	1.1.1.1.	
Digit 1	Kemove Ke	epeats	

若成功动作说明,红外码学习正确了,若没有请检查线与设备能否正常使用,码是否为坏码 (请看下文)。

## 注意:

学习完之后应该注意检查是否有坏码,若有,请重新学习。参考文档 如何发现与修复红外坏码

http://www.dvaco.com/NewsIndex.html?newid=545&id=11&cid=21