Configuration Manual for SMART IR Serials

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1. IR Serials

1.1 Devices needed for IR serials

To control IR device by Smart-Bus System, the following devices & software are required:

SN	Device	Remark	PIC
1	A computer with XP system (necessary)	IR learner is compatible with WINXP, but it's not compatible with win7, so a computer with XP system is required	
2	IR Learner (USB) (necessary)	To learner IR Code from normal remote control to smart cloud software, after learned the codes, the IR codes are saved one database on smart	

		cloud software	
3	Driver for IR learner (necessary)	The driver can be downloaded from the link below	
4	IR Emitter or IR Macro or 9in1 sensor (one of them is necessary, IR macro is recommended)	Storage & Transmit IR codes	
5	RSIP (necessary)	Data converter between TCP/IP and S-BUS, and RS232 3rd party integration module	
6	SMART Cloud configuration Software V14.20 or above (necessary)	G4 SMART-BUS Configuration software	
7	DDP (optional)	Control Panel	

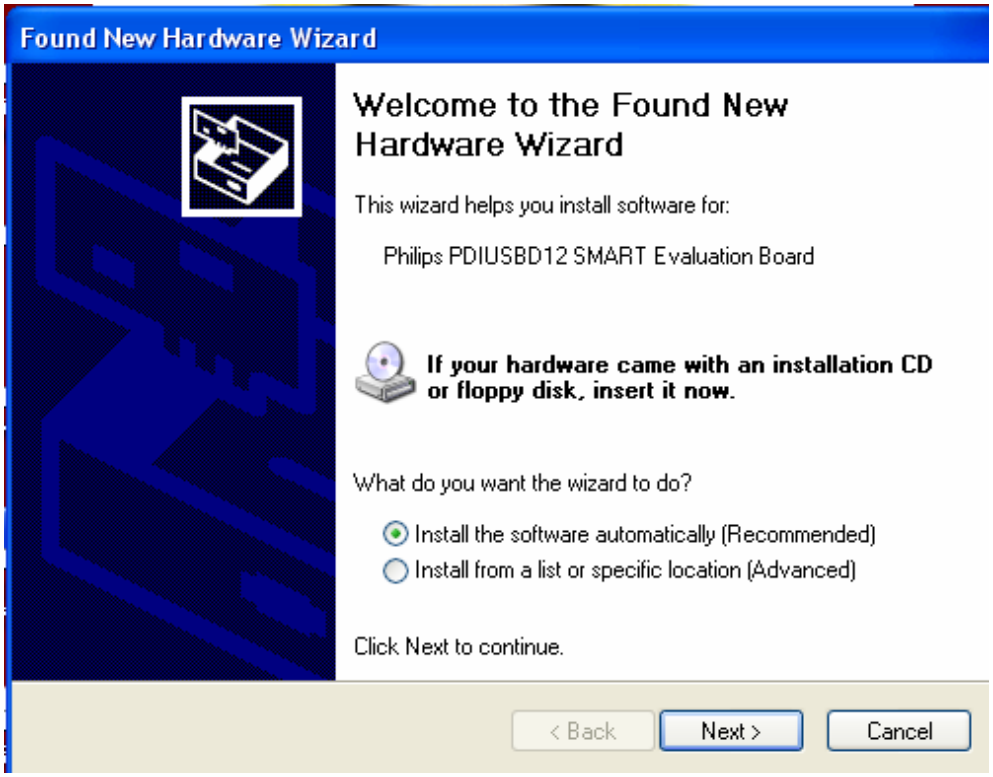
Driver for IR Learner (XP System required):
http://www.4shared.com/rar/X-HfzTq_/ir_learner_driver.html

Latest SMAR Cloud Configuration Software is available from the link below:
http://www.4shared.com/folder/vDYQVvVx/Smart_Cloud_Software.html

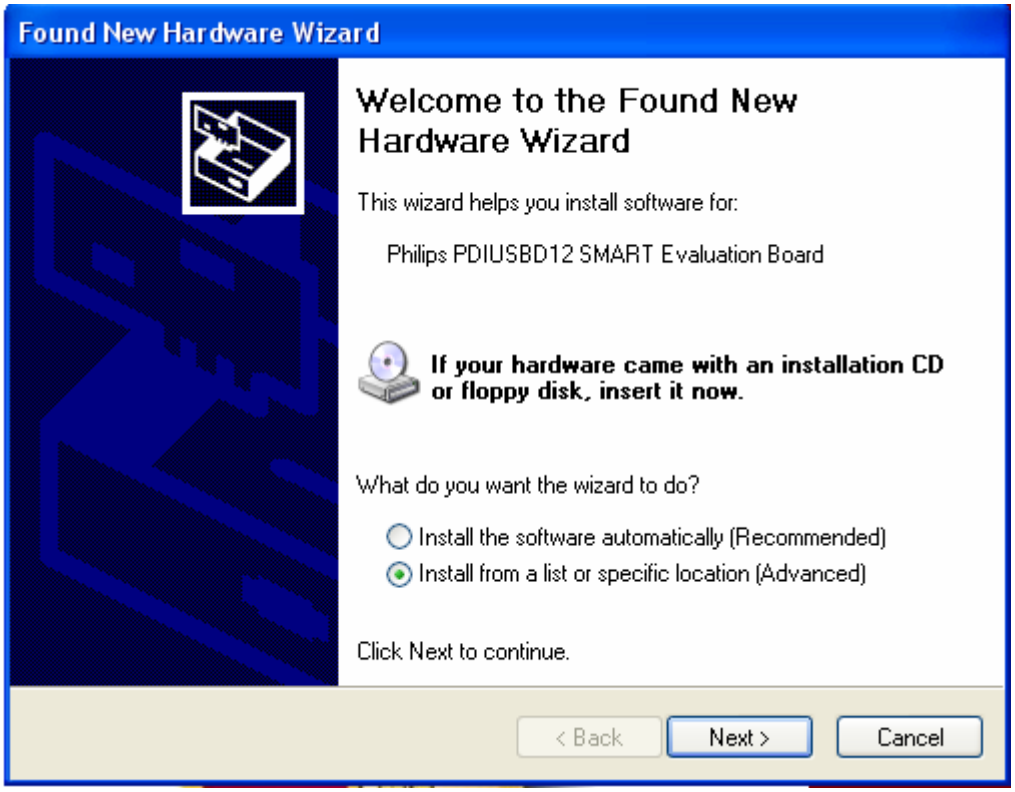
Info for downloading:
The account of www.4shared.com website is required, it's free register.

1.2 Install driver for IR learner

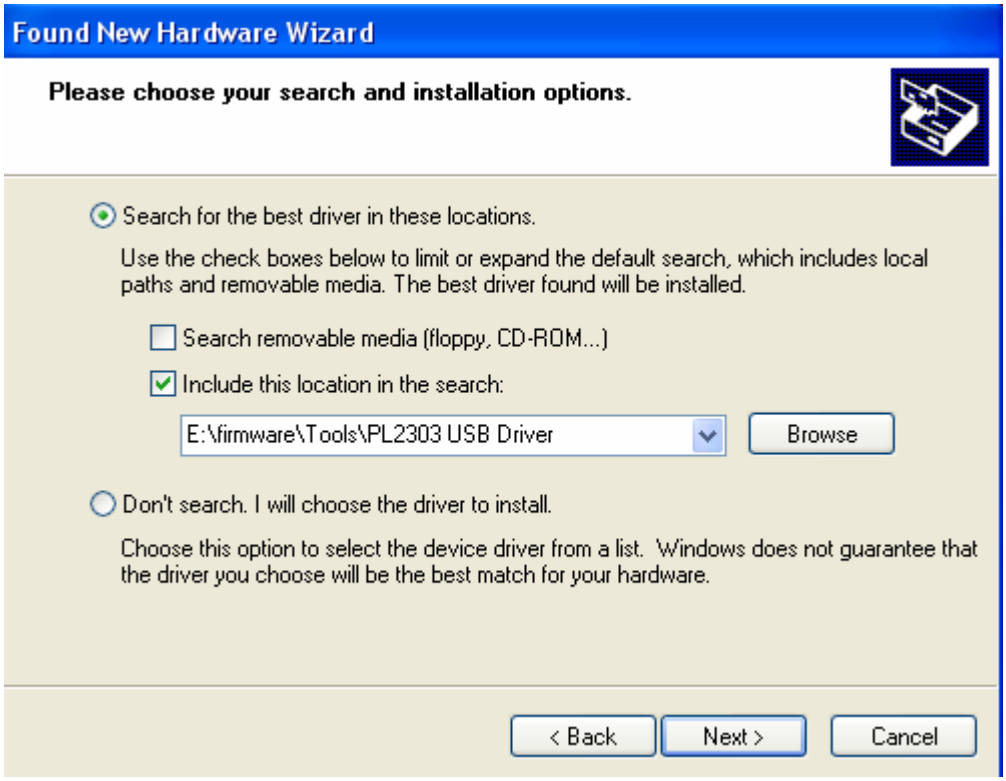
plug in IR learner to USB port on computer, then the following screen will be pop up



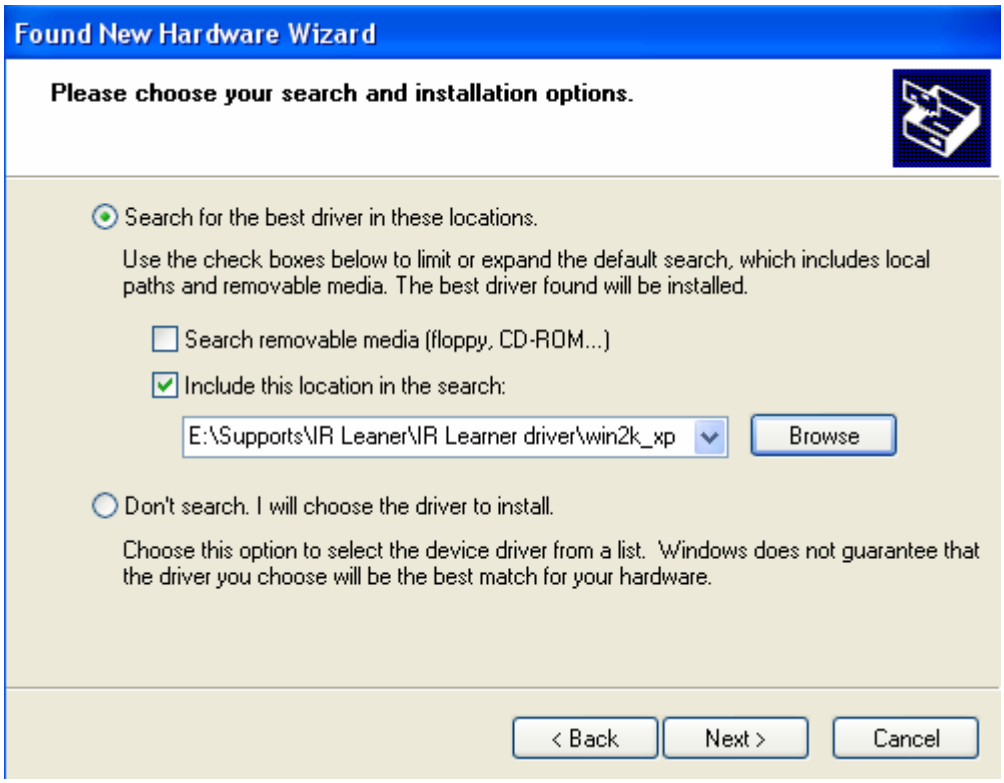
Select “Install from a list or specific location (Advanced)”



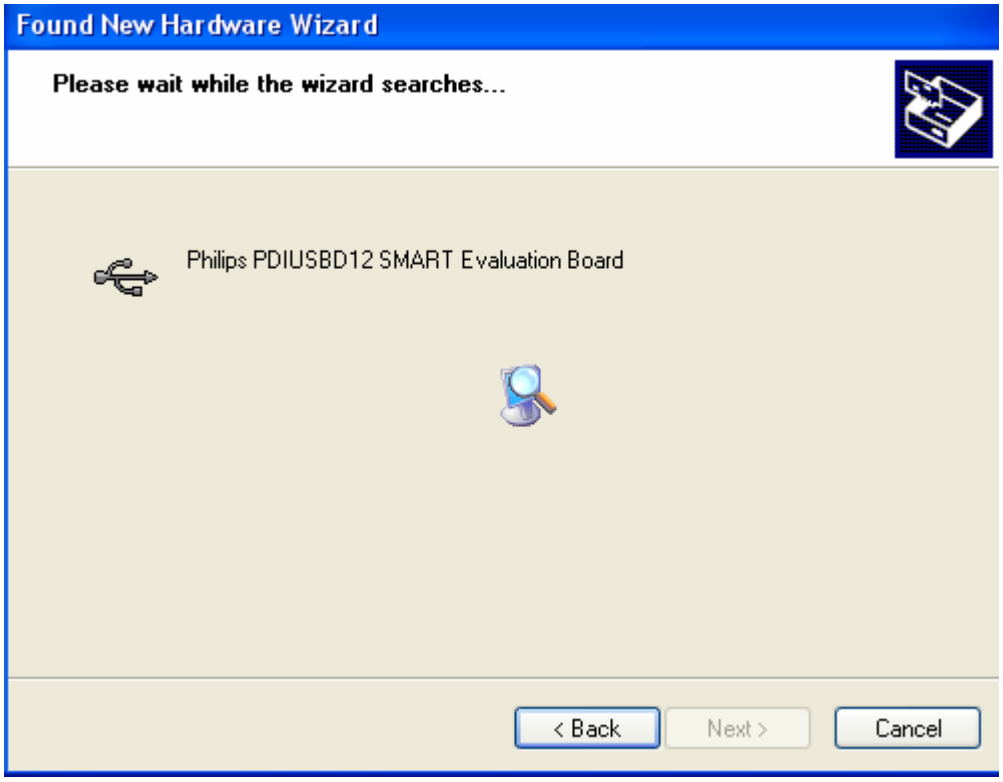
Press next button



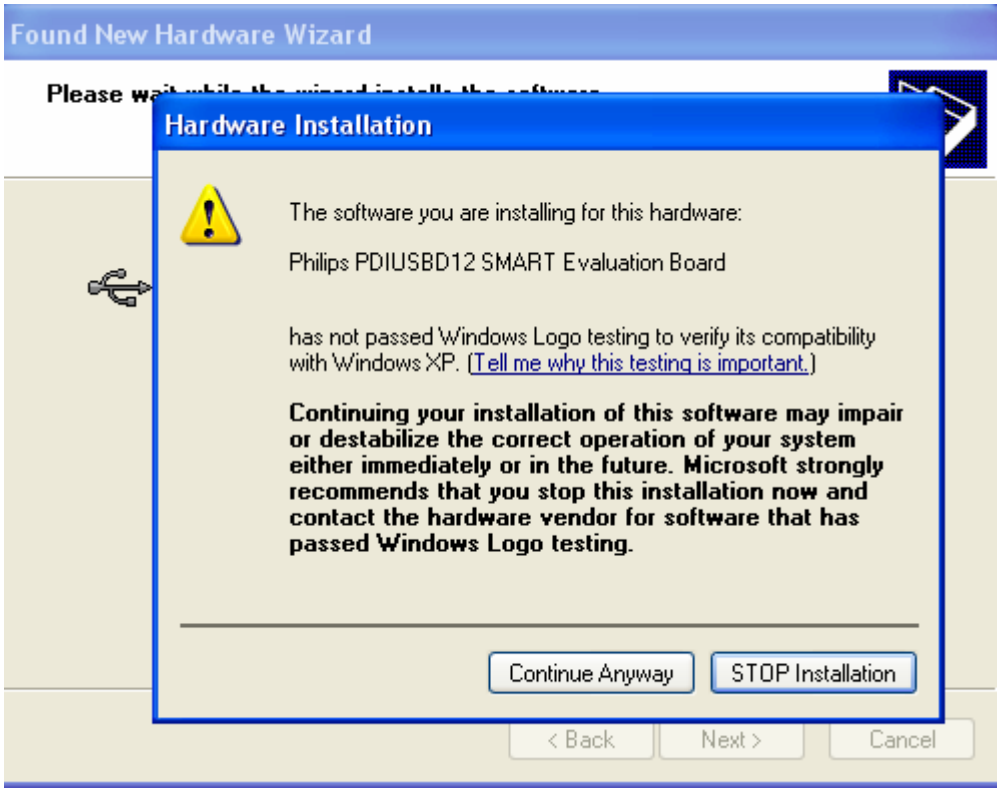
choose the location of driver for IR learner

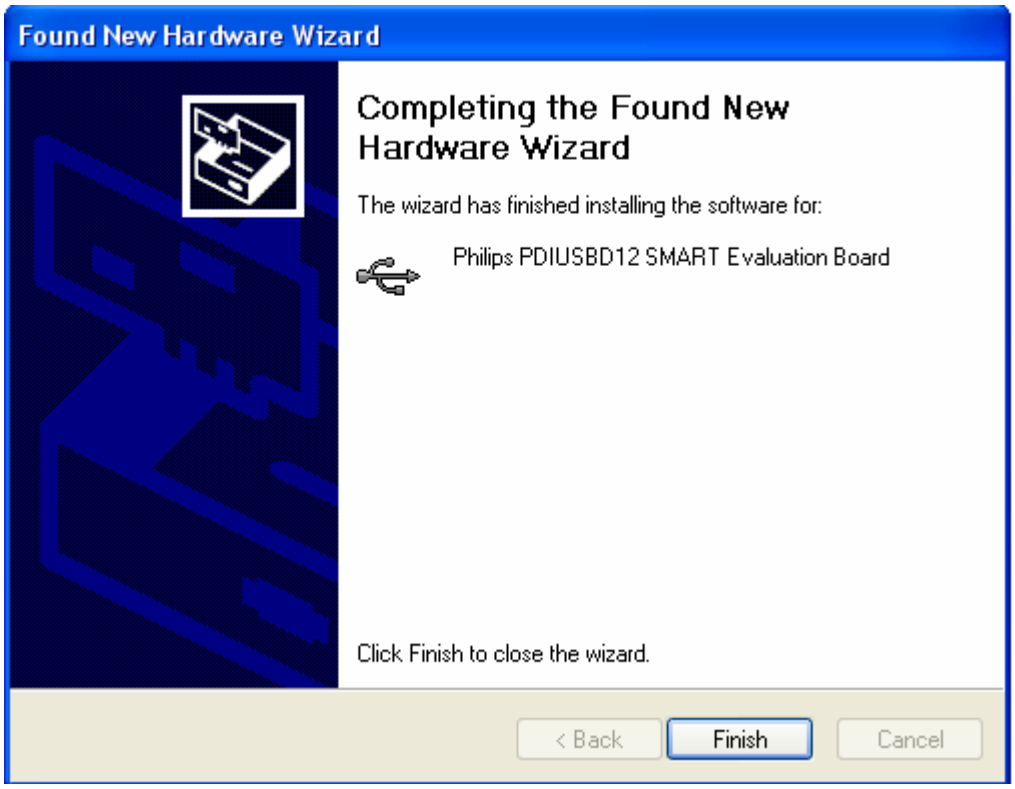


then press Next button



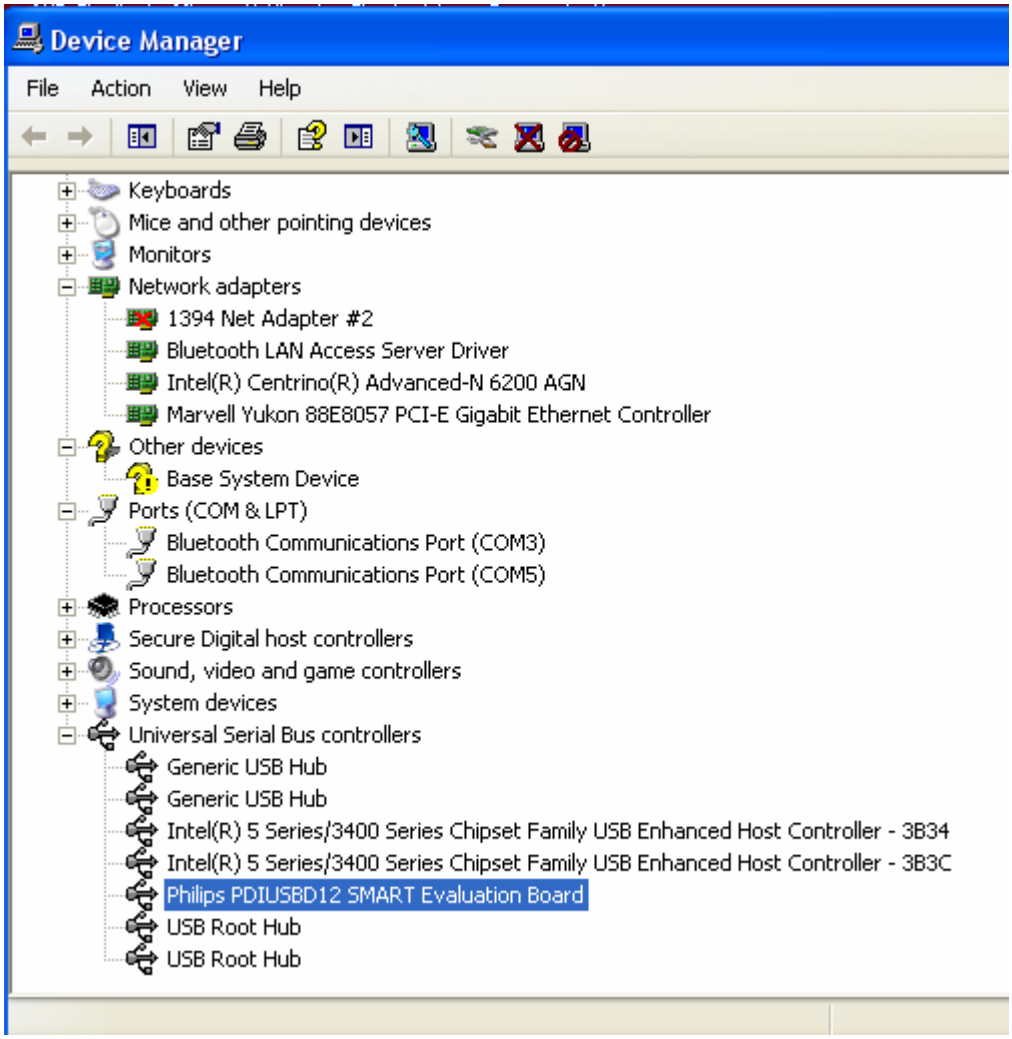
Press button “Continue Anyway” below





Press button “Finish”

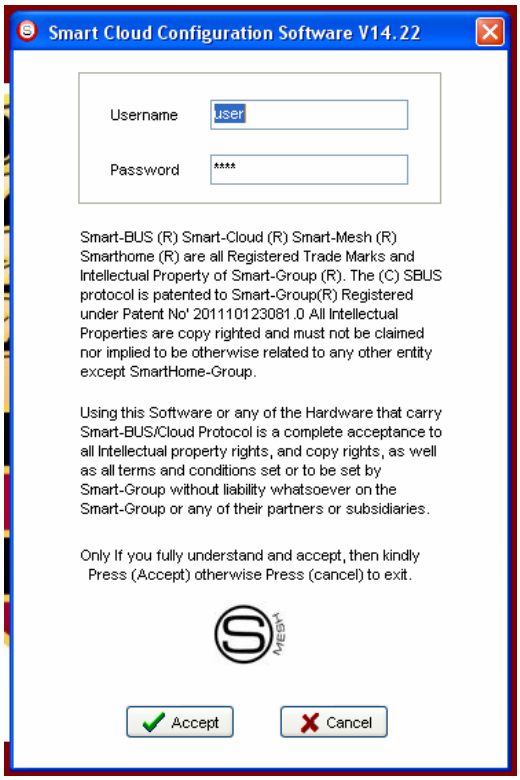
After the driver for IR learner has been already successfully installed; “**Philips PDIUSBD12 SMART Evaluation Board**” will be shown on **Device Manager** below

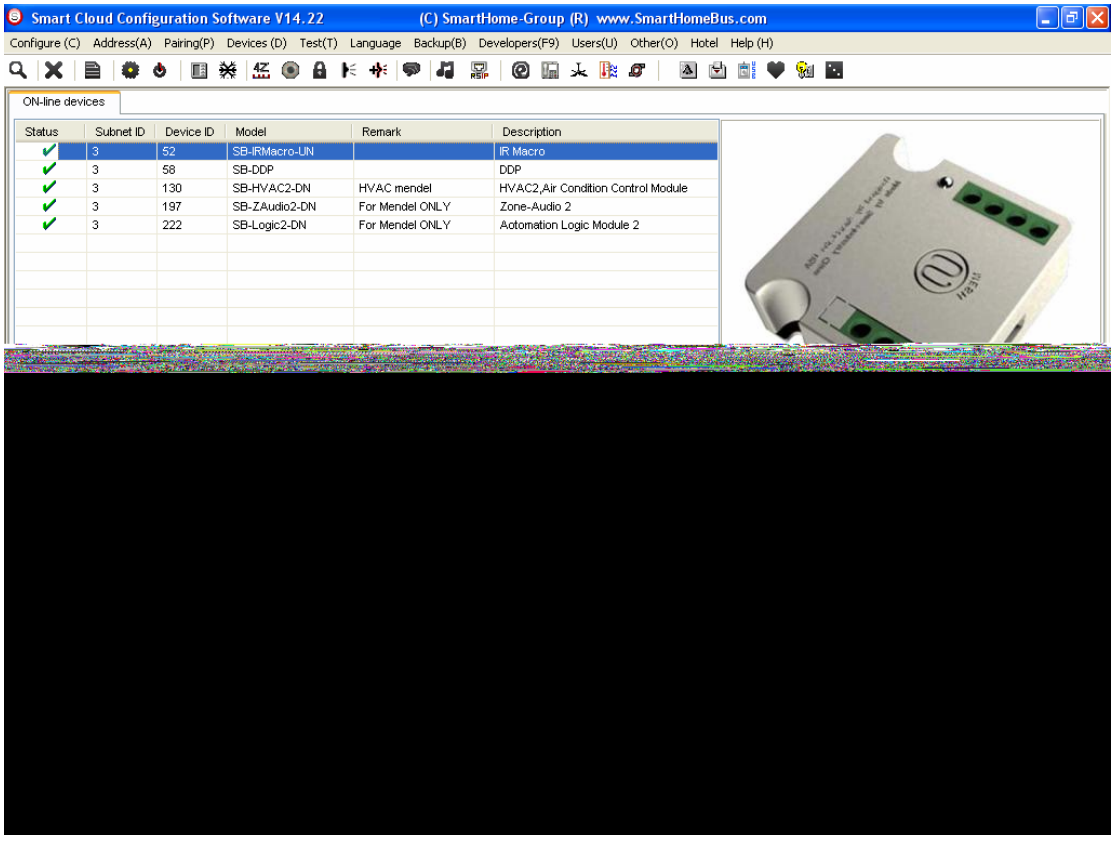


1.3. Learn IR Code from remote control to smart cloud software

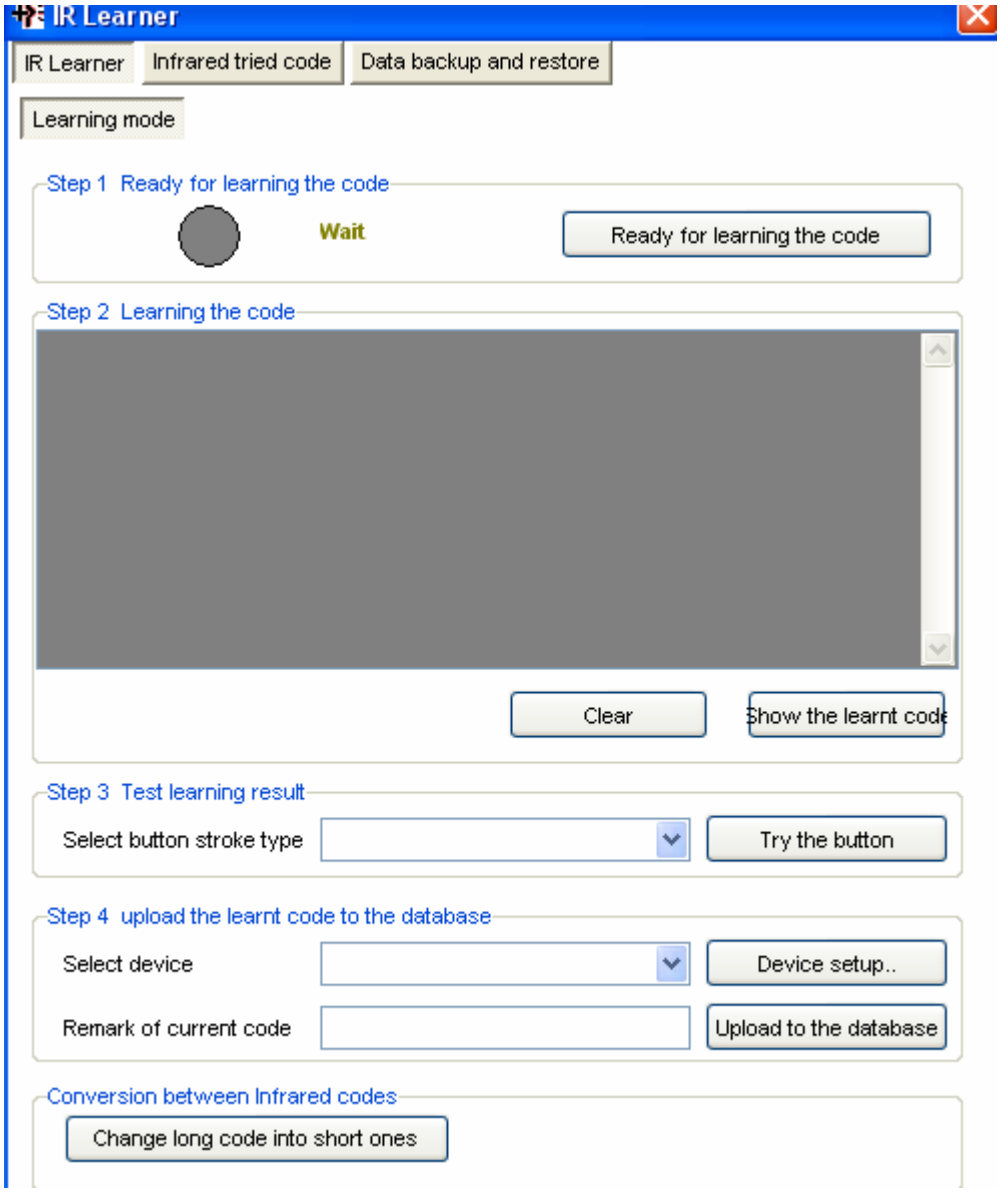
1.3.1 Go to IR Learner Page

Run Smart Cloud Software



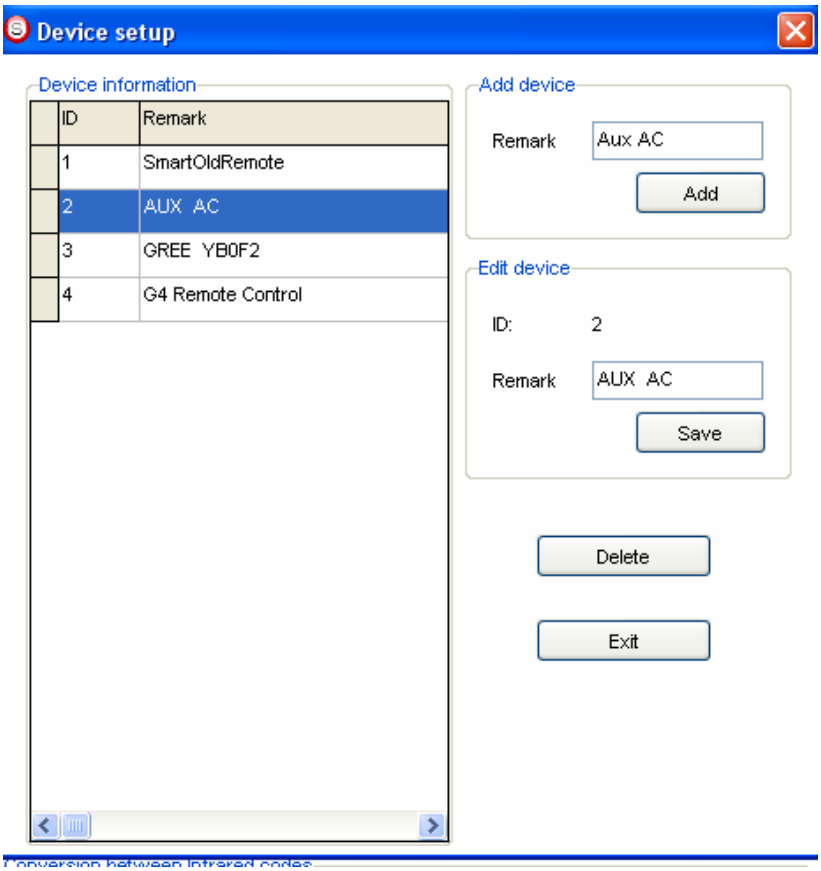


to go to IR learner page**,** Menu **Devices** -> **IR Learner**

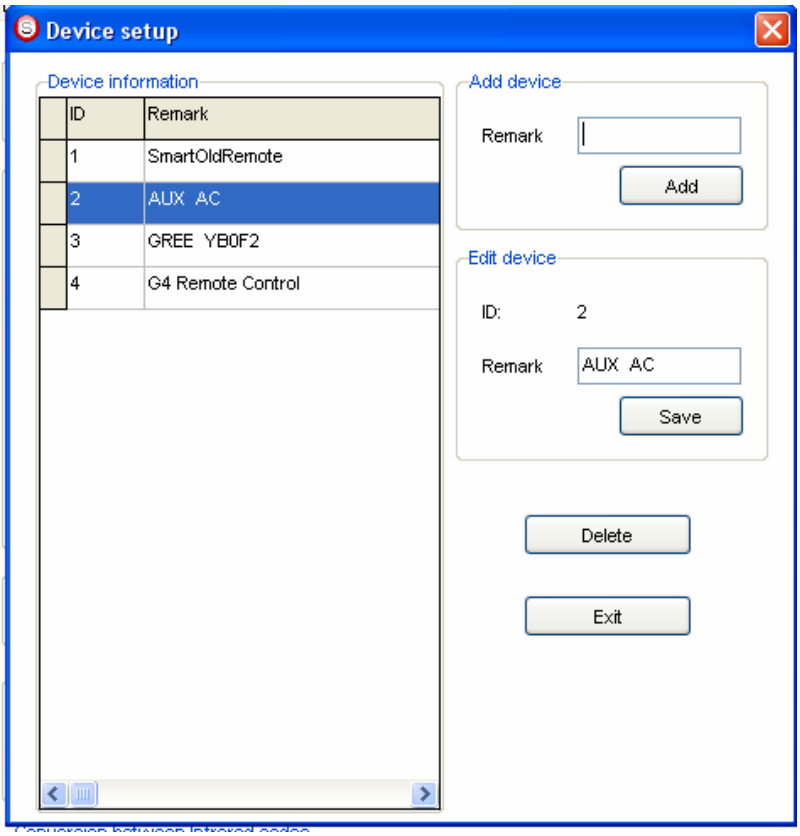


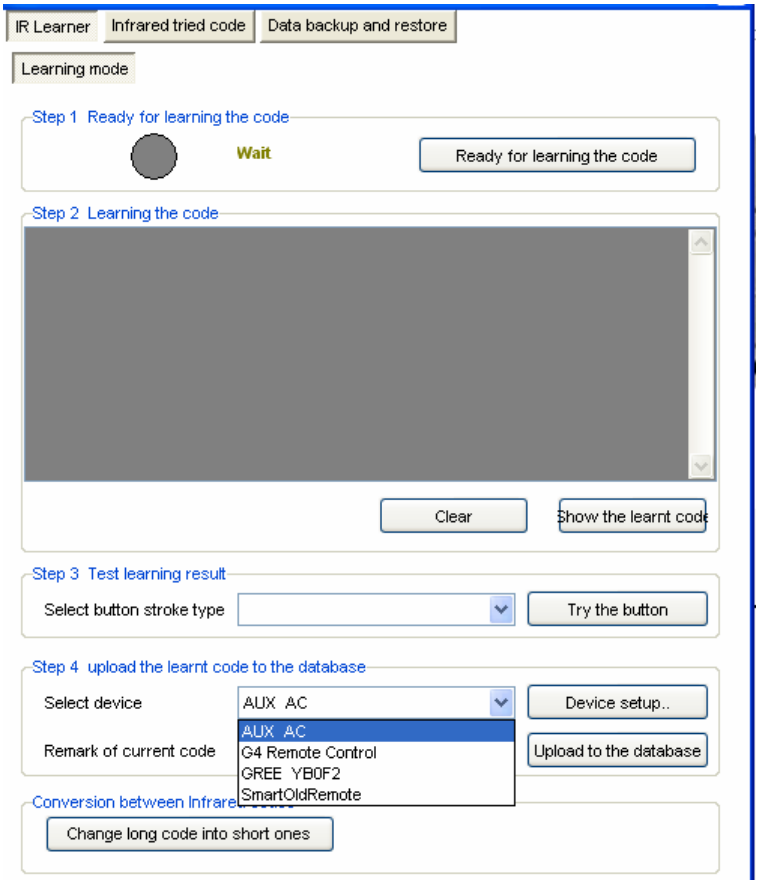
1.3.2 **Device Setup** (such as TV,DVD,AC and so on)

click button “Device Setup” above



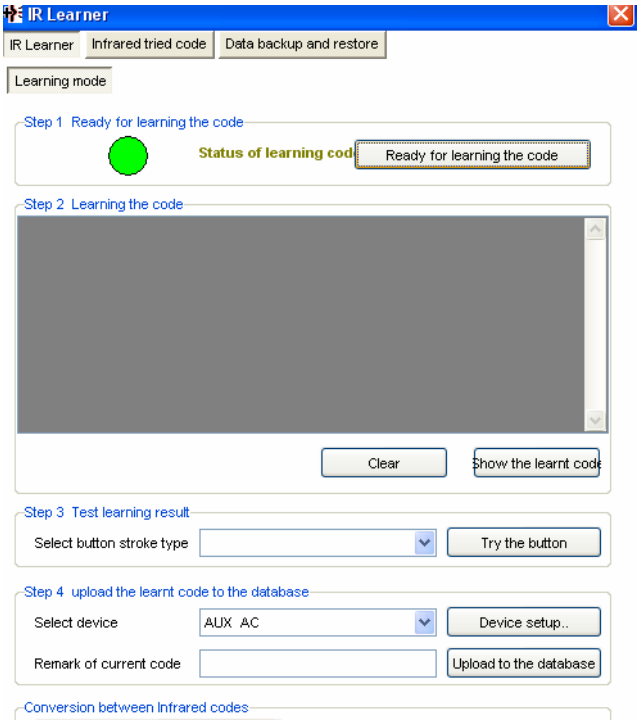
Press button **Add**



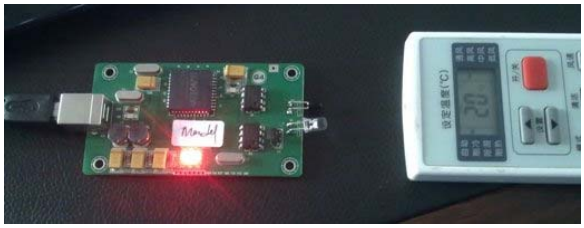


1.3.3 get started to learn IR code

A. press button “Ready for learning the code”

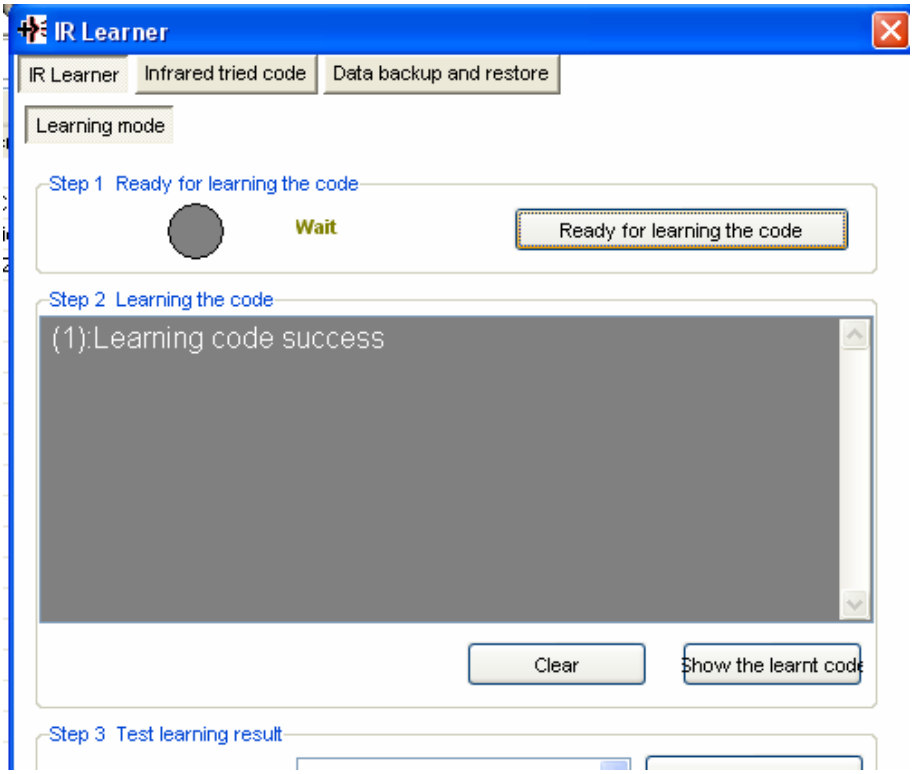


B. Put Remote Control near to IR Learner



C. Press button one time on Remote Control

D. it will show result of learning from smart cloud software



Troubleshoot for IR Learner:

If the message of “Learning code success” does not show, here is the solution for it:

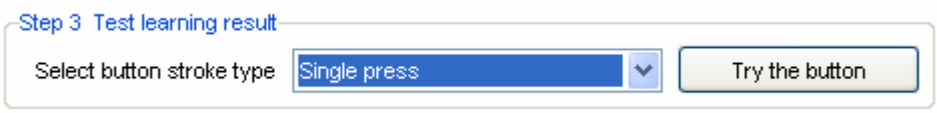
A. Close the IR learner page

B. Remove IR Learner device from USB port on computer

C. plugs IR learner in again, and open the page of IR Learner.

E. Test the Code that you have already learnt

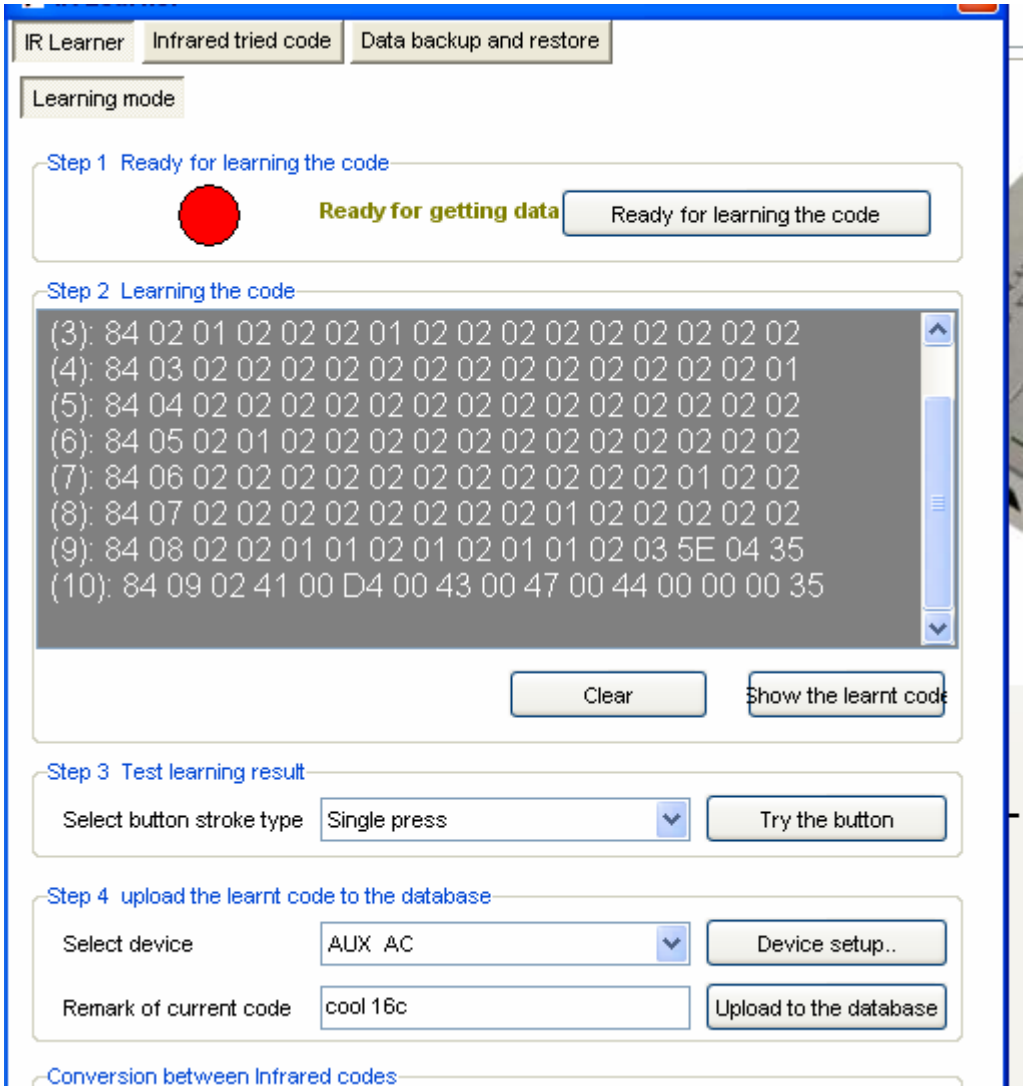
Point IR learner to appliance (here take AC as example)



Click button “Try the button’ above to transmit IR from IR Learner
if appliance has correct response, it means the IR code that you have learnt is accurate, otherwise you might relearn again.

F. Upload IR code to the database

select device, fill out remark for IR code, then press button “Upload to the database”

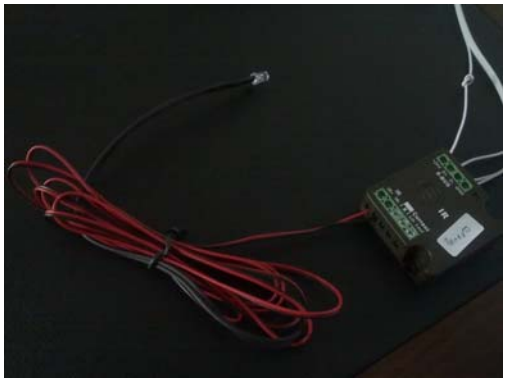


1.4 Download IR Code to IR Emitter/IR Macro/9in1 Sensor from Smart Cloud software

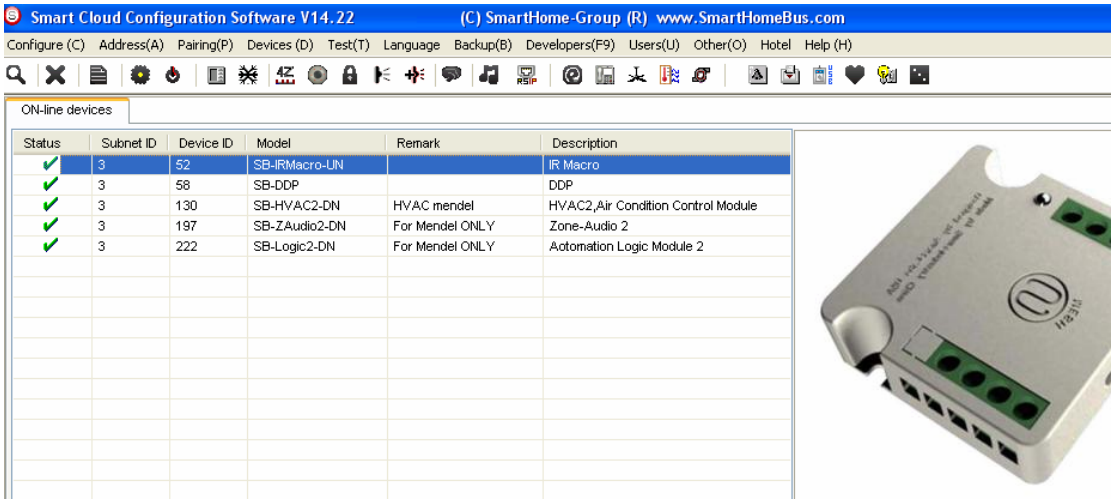
Here take IR Macro device as example

Make sure you have already connected **IR Transmission Diode** to IR Macro.

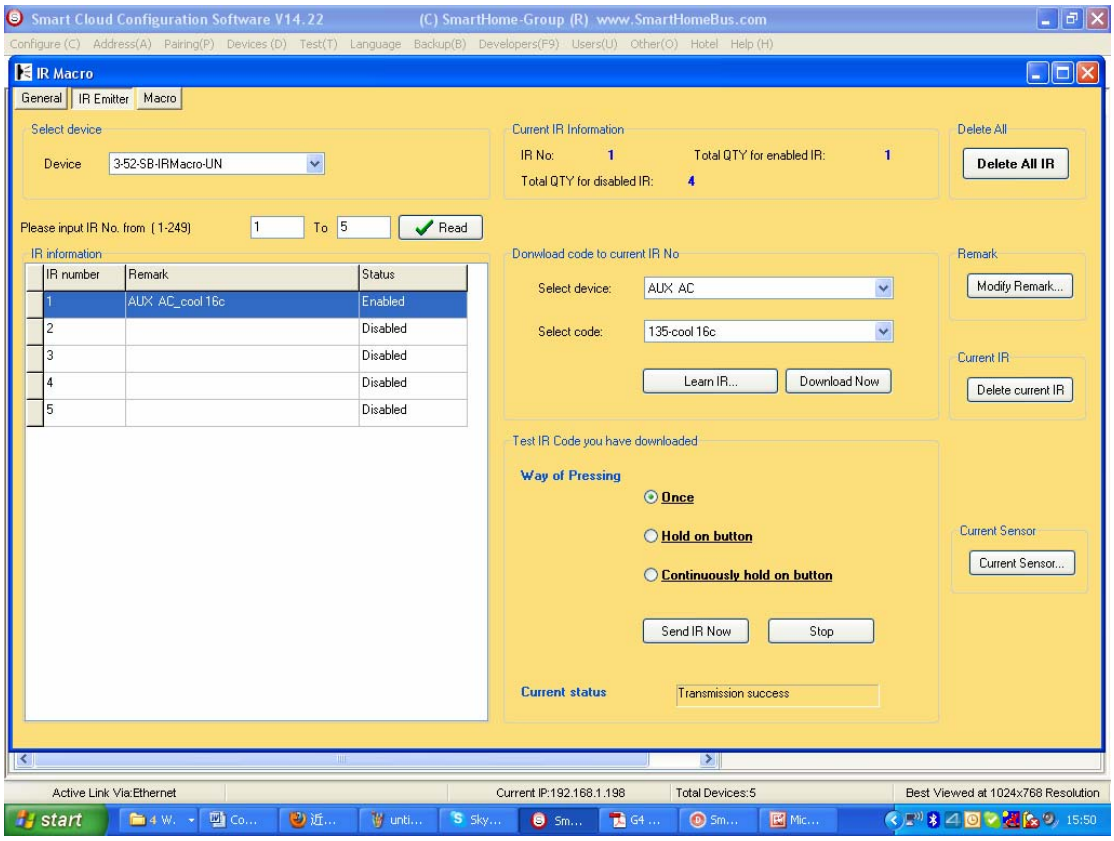
From the following picture, you can see IR transmission diode is connected to IR Macro, (Red cable needs to be connected to Port of **IR+**, and black cable needs to be connected to port of **IR-**)



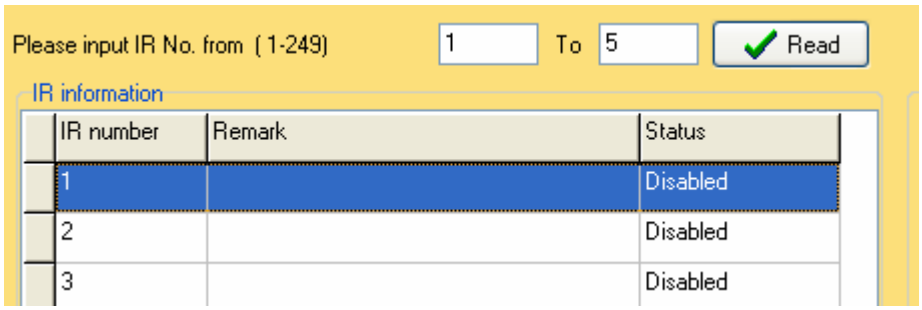
After you have scanned the online devices, you will find the IR Macro



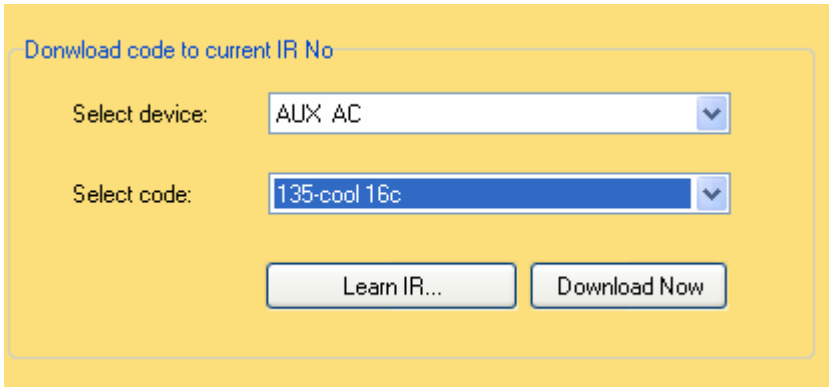
Double click device SB-IRMacro-UN, and select tab “IR Emitter”



Select the IR number which is going to be uploaded; Here IR number 1 is selected.

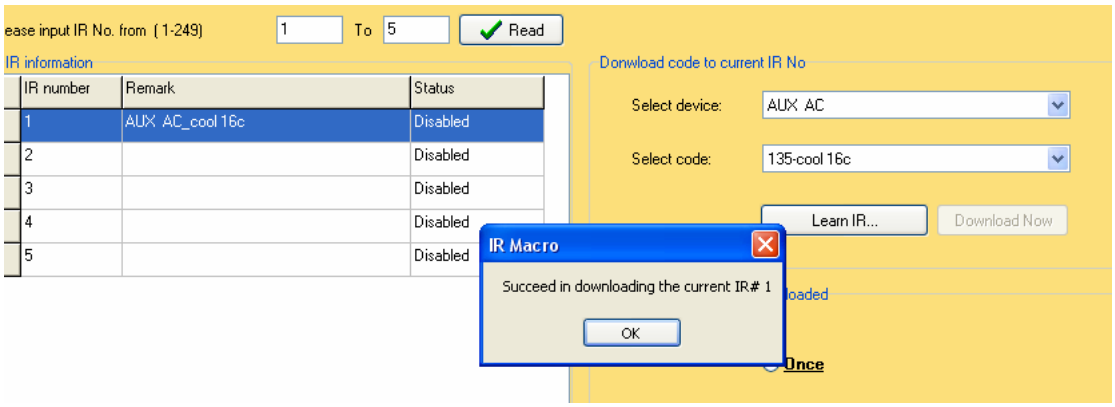


Select device “AUX AC”, select code that you have already learnt.



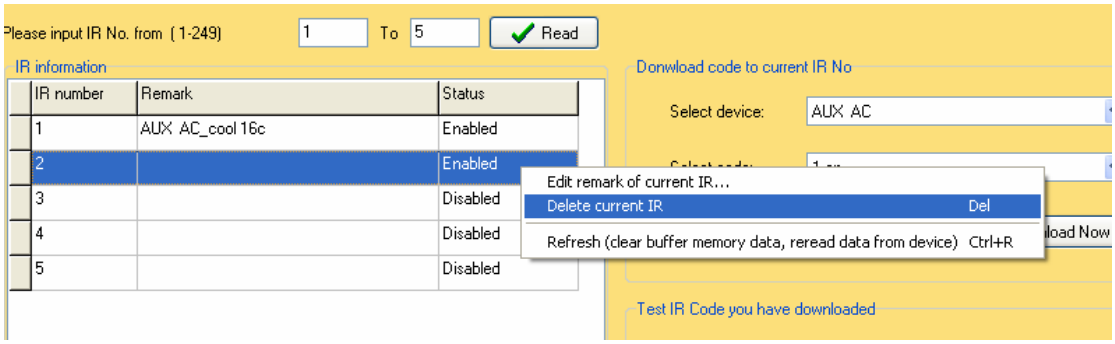
Then Press button “Download Now”

Successfully download



Delete IR

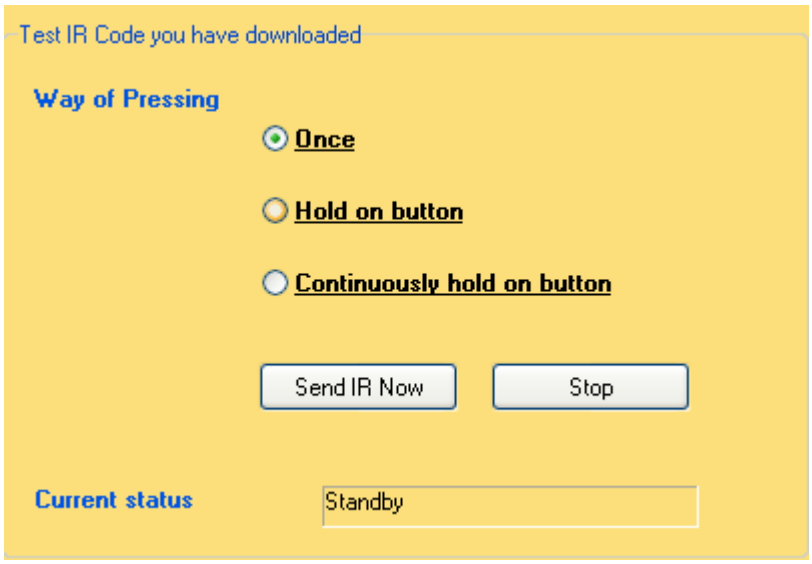
Right click the IR Number, click “Delete current IR”



Test IR

the IR Transmission Diode needs to be attached to appliance where the IR Receiver located, then fasten IR transmission Diode by tape.

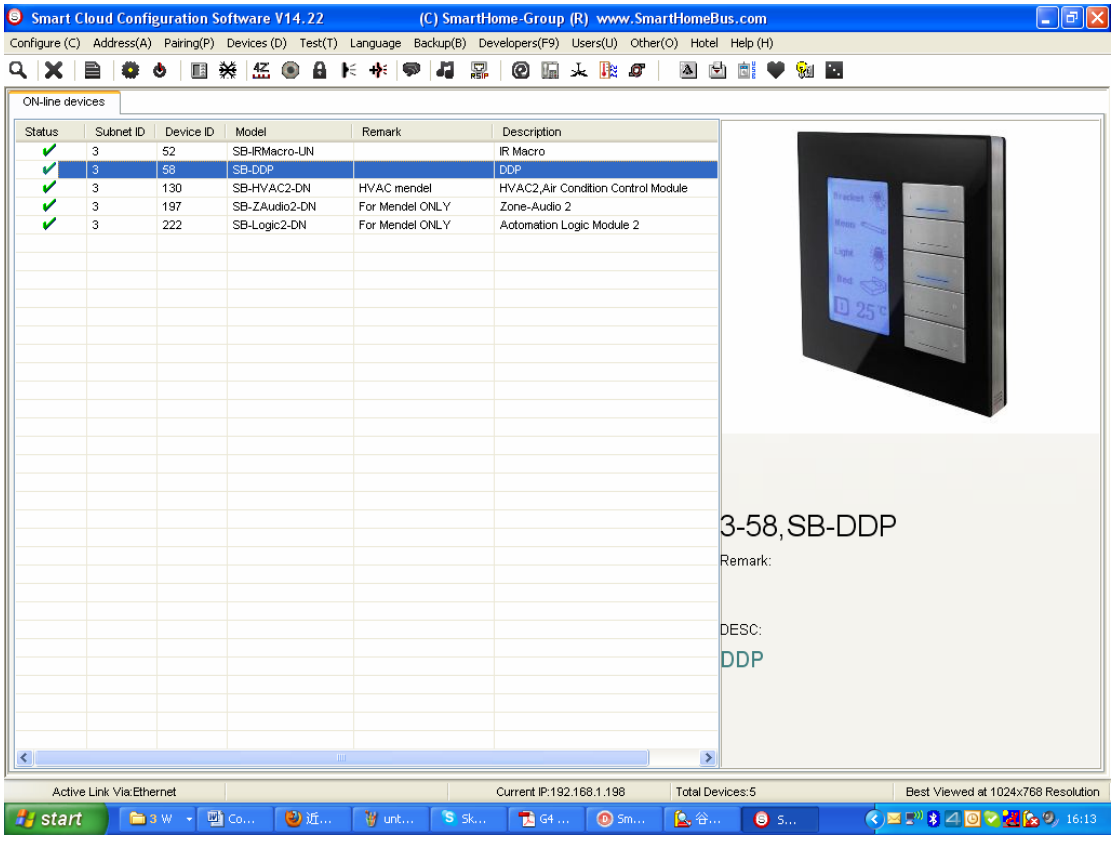
Press button “Send IR Now” to test the IR.



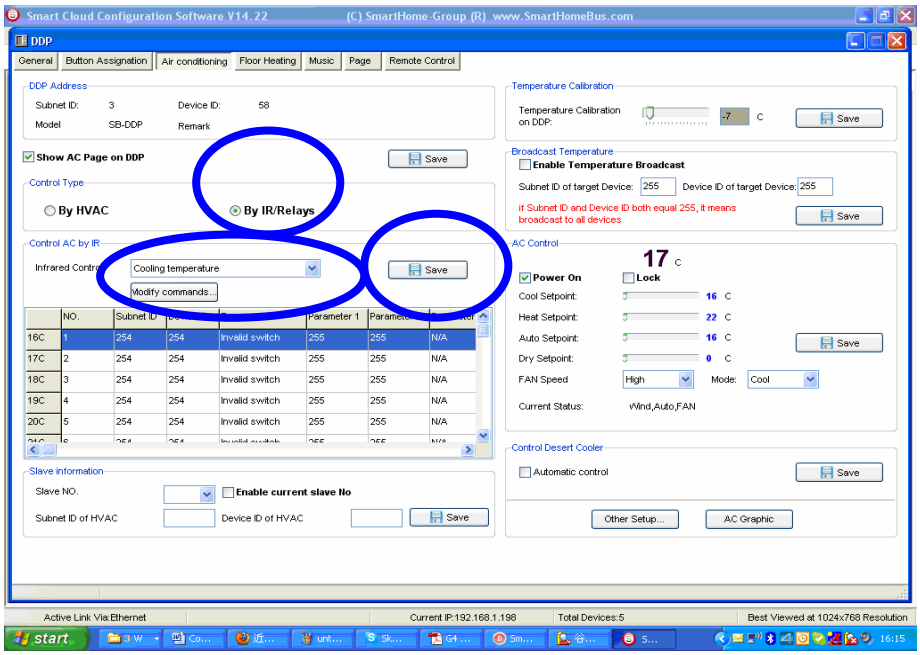
If it’s not successful to transmit IR, you might download again or relearn the IR code.

1.5 Transmit IR by Universal Switch Command

Transmit IR by Universal Switch Command; here is the example for DDP control Split AC

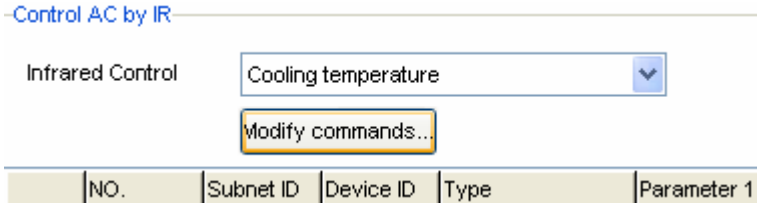


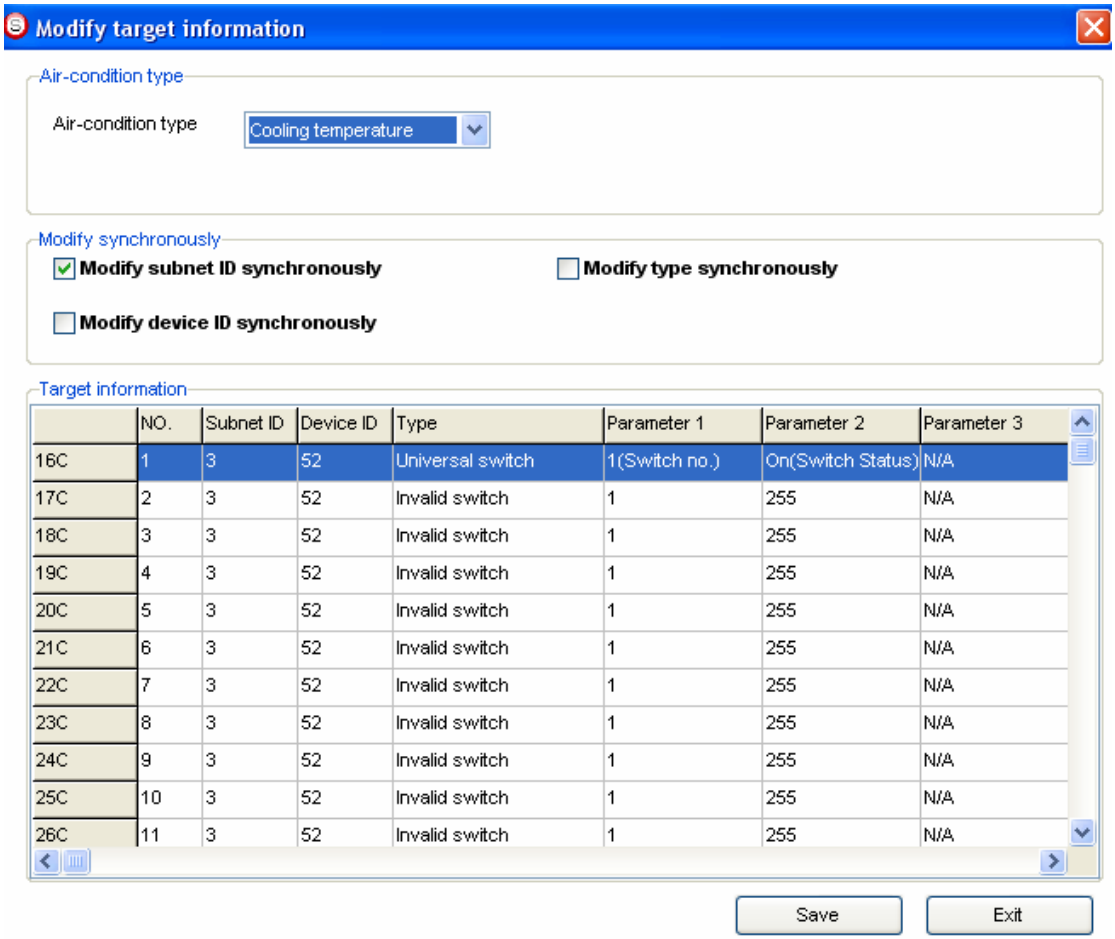
Double click the DDP



Select tab **Air Conditioning,** select **<u>By IR/Relays</u>**, and select **<u>cooling temperature,</u>**
Then press button "**Save**" Above

Press button "Modify Commands"





Fill out the Address of IR Macro, Subnet ID=2, Device ID=52
Type: Universal Switch
Parameter 1: 1 (IR No)
Parameter 2: ON

Go to AC Page on DDP, Cool 16c is ready to be controlled by DDP now.

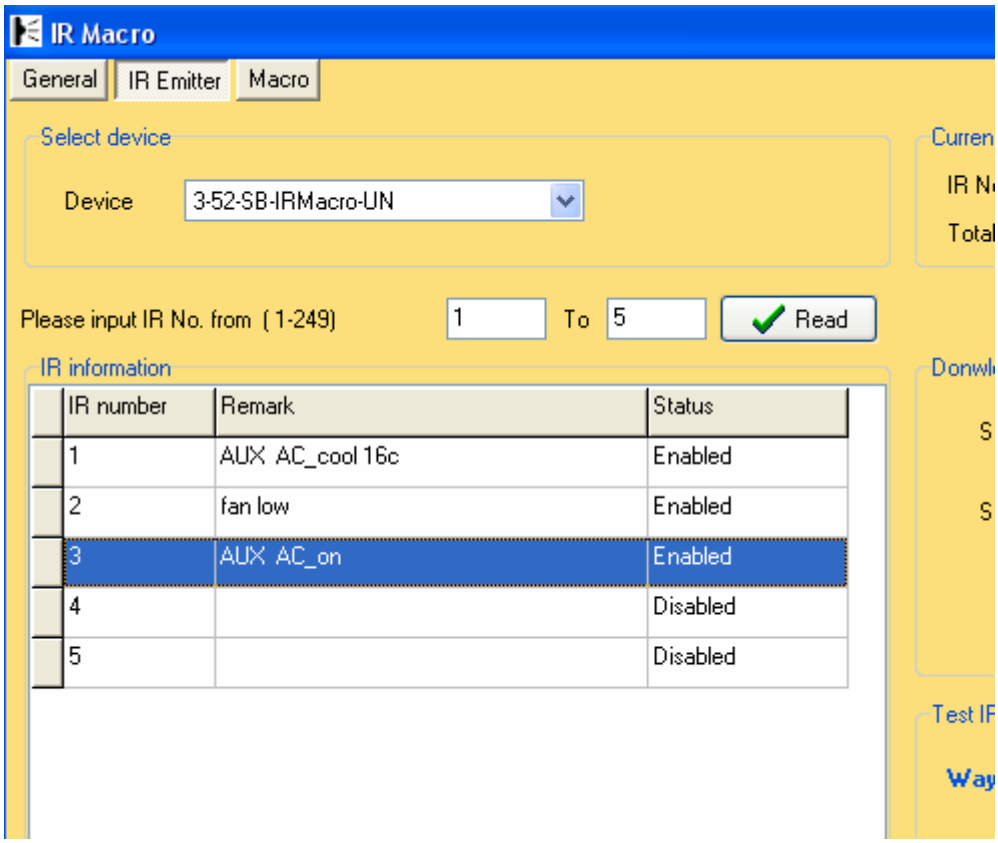
For others function such as cool, heat, fan and so on, it's same way to do that.

1.6. Configure IR Macro

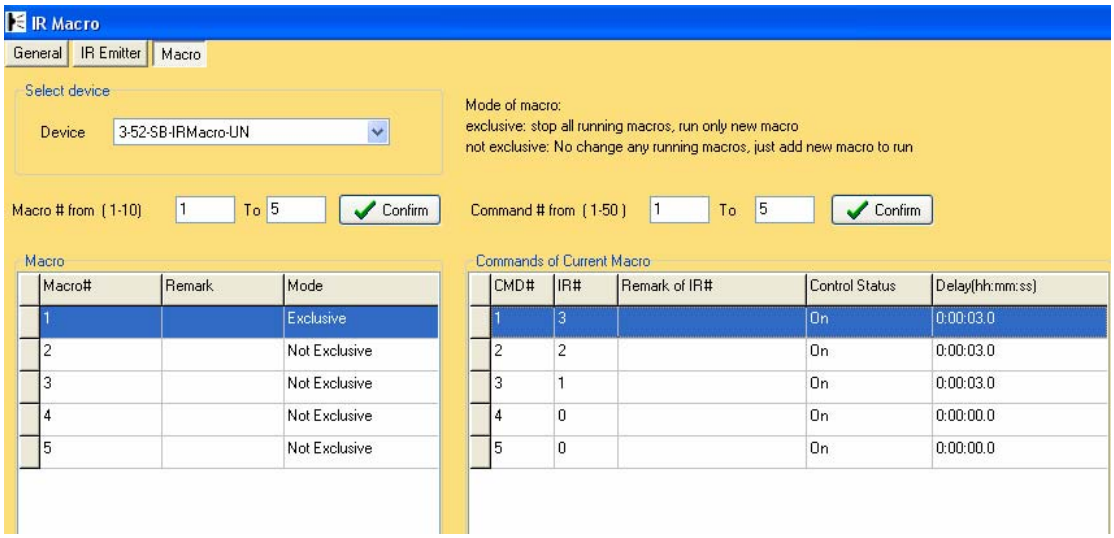
IR Macro: A macro includes certain IR (max. 50 IR), each IR in between can have delay time after current IR is transmitted. The delay time can be setup from 0 second to 10 hours.

For example:
Macro “comfortable AC”, this macro will do 3 things as following:
1.Turn on AC
2. Make fan speed to be low
3. Cool set point to be 16c

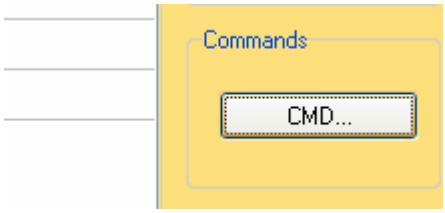
here are some ready IR no.
IR No for AC on =3
IR No for Low fan=2
IR No for cool 16c=1

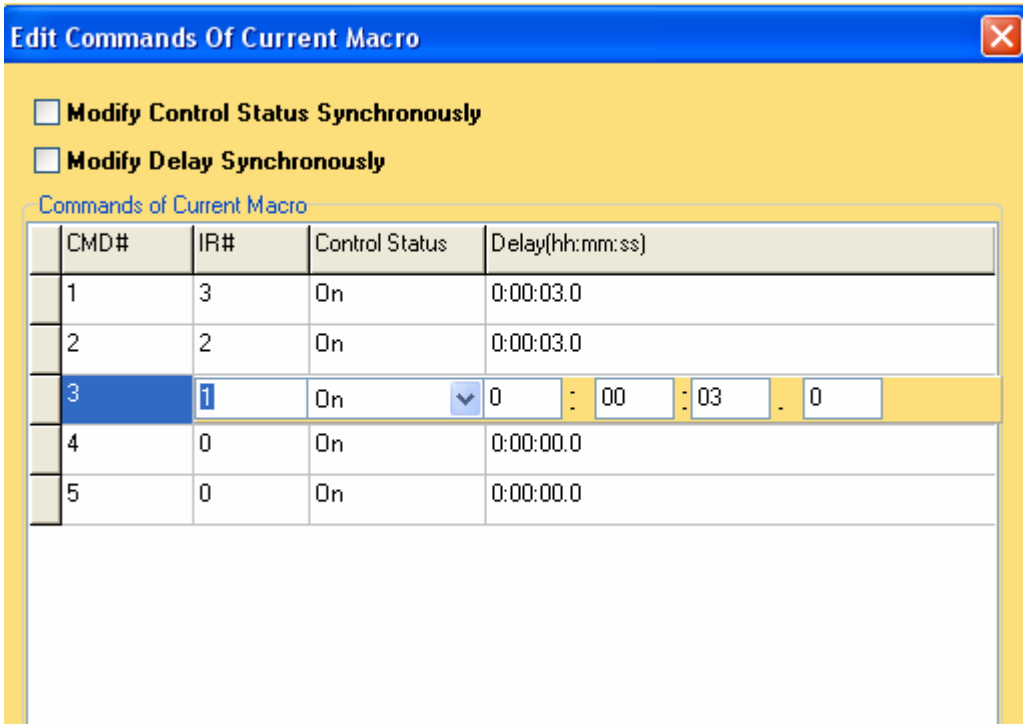


then select tab “macro”



select Macro 1, press button “CMD”



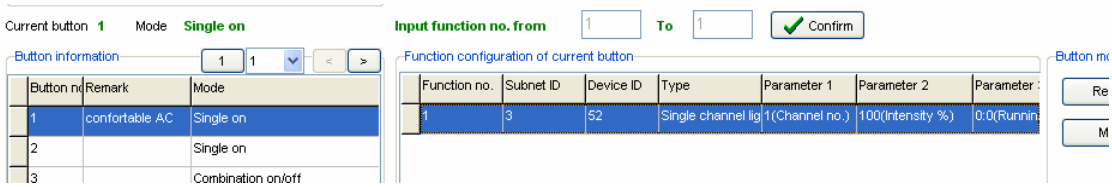


Then press “Save” button

1.7 Run/Stop IR Macro by Single Channel Control Command

Command Type	Single Channel Control
First Parameter	Macro No (1-10)
Second Parameter	Run macro=100 Stop macro=0
Third Parameter	Reserved, no use. make it 0

Here is the example for DDP run/stop macro:
Mode of button: Single on
Subnet ID: 3, Device ID: 52 (address of IR macro)
Type: Single Channel Control
Parameter 1: 1 (Macro No)
Parameter 2: 100 (Run Macro)
Parameter 3: 0 (Reserved, no use)



To stop macro, parameter 2 needs to be changed to 0.

1.8 Current Sensor

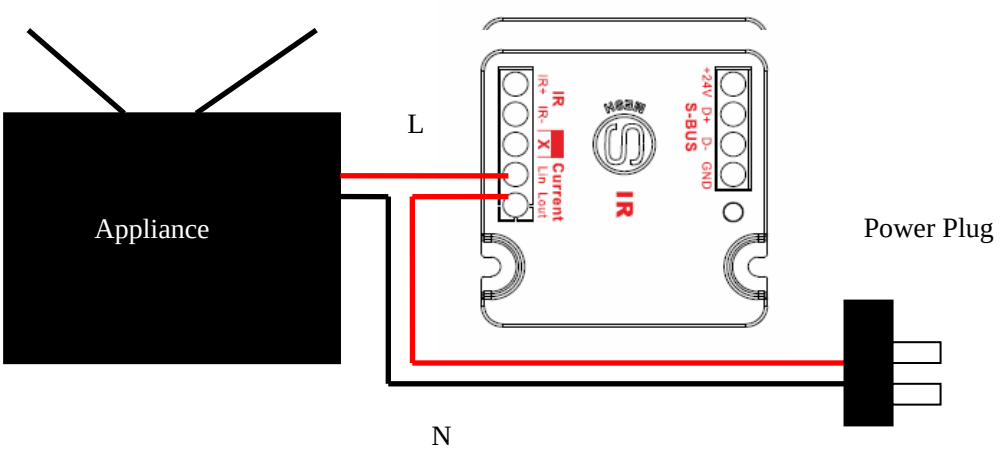
If the IR code for power on is the same as power off, for example TV, most of TV uses same IR code for power on and off. This case might have problem with your control.
You can not surely turn on appliance; also you can not surely turn off appliance.

To resolve this issue, IR Emitter or IR Macro has built in current sensor.
IR Emitter can detect current with one appliance, (one current sensor can only connect one appliance)
IR macro can detect current with two appliances. (One current sensor can connect 2 appliances)

1.8.1 Connection for current sensor

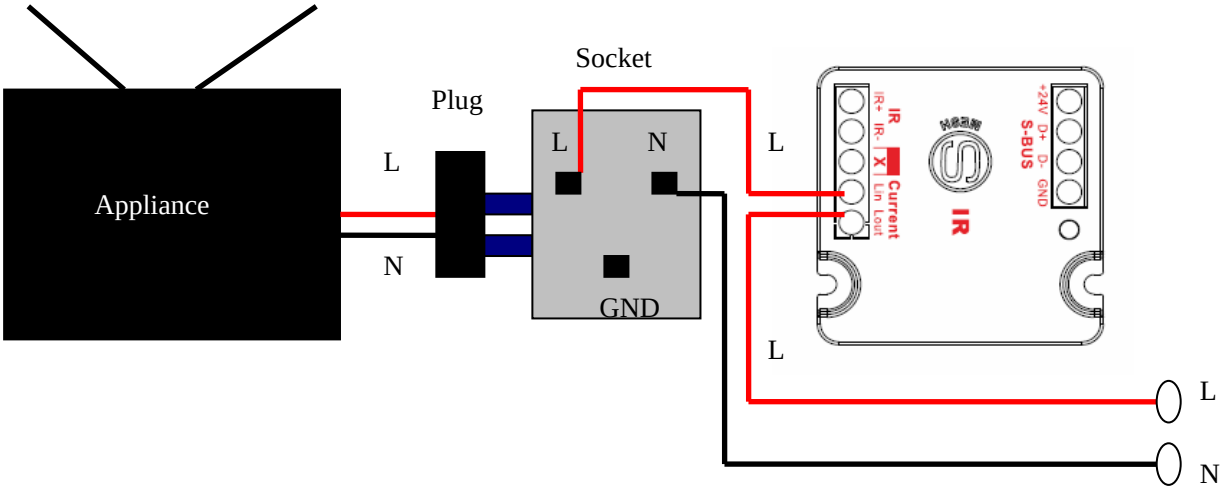
there are 2 type of connection for current sensor,
Connection A (Without socket): Appliance power cable needs to cut, one side of live cable connect to **Lin** port on IR Emitter, another side of live cable connect to **Lout** port on IR Emitter. Please see the diagram below.

Current Sensor Connection A (Without Socket)



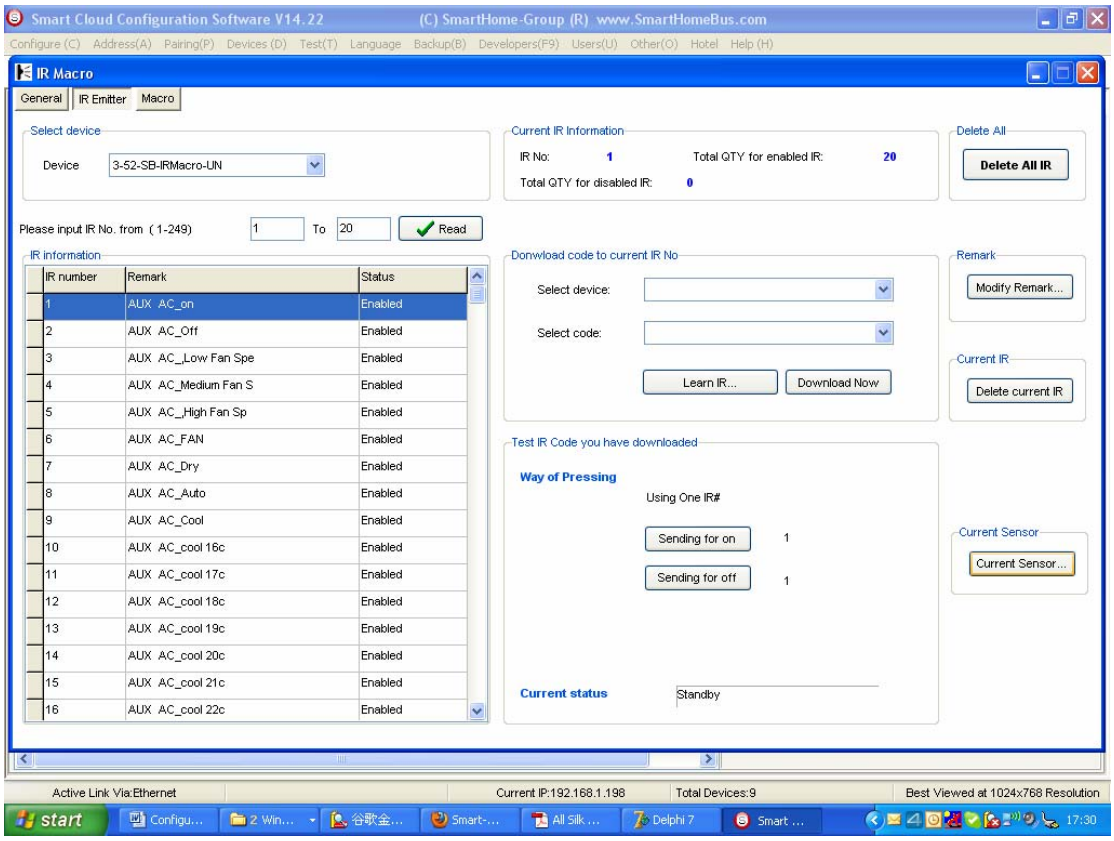
Connection B (With socket, Recommended): if use socket, Appliance power cable no need to cut, please see the diagram below.

Current Sensor Connection B (With Socket)

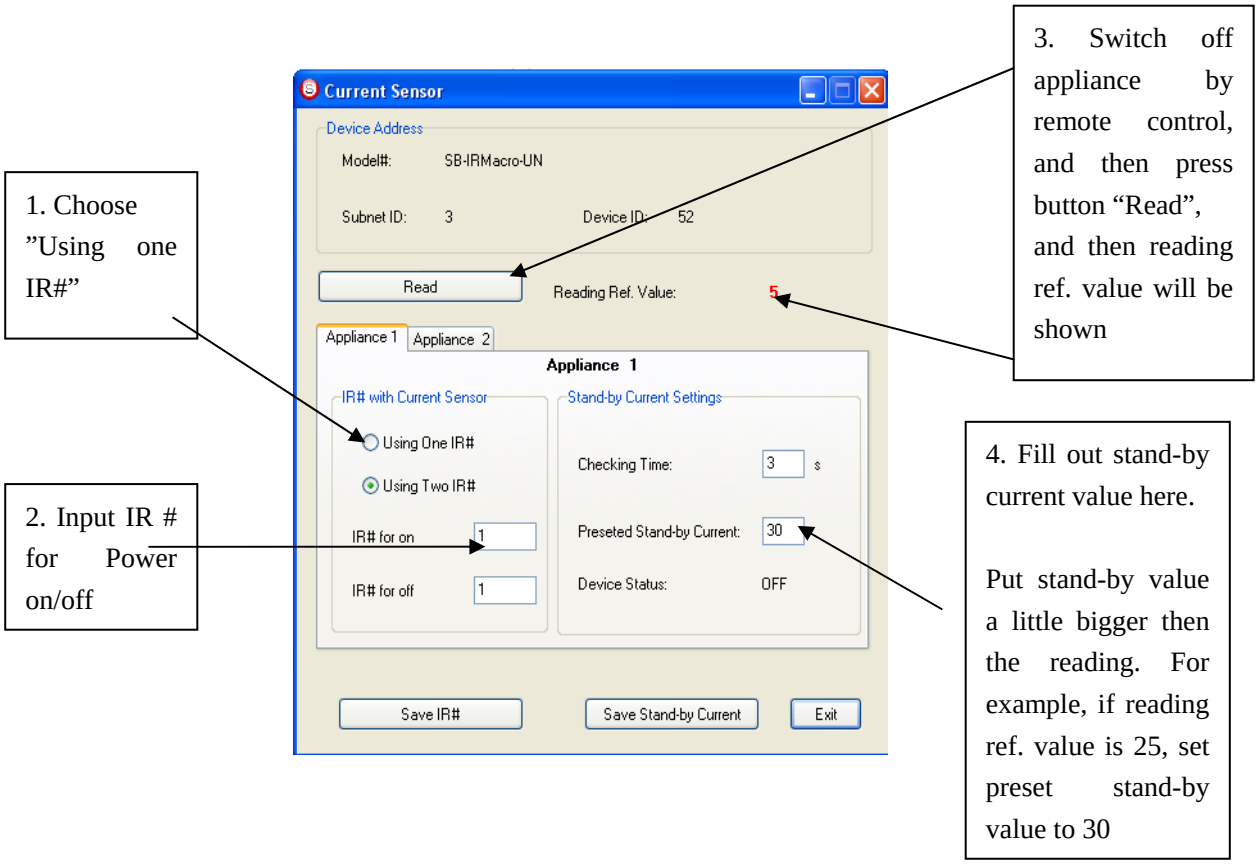


1.8.2 Configuration for current sensor

here takes IR Macro as example



Press button “Current Sensor”



How to turn on appliance?

Command Type:	Universal Switch	
First parameter:	IR No, here is 1	
Second Parameter:	ON	

How to turn off appliance?

Command Type:	Universal Switch	
First parameter:	IR No, here is 1	
Second Parameter:	Off	