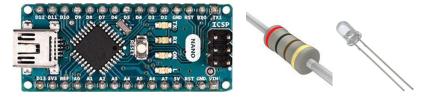
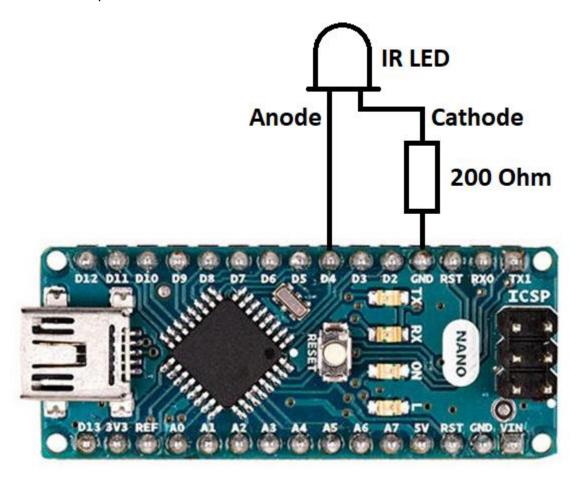
Arduino LIRC PC Tools User Guide

Using **Arduino LIRC PC Tools** you can build Remote Controls for various devices as TV / Video Systems / Decoders and so on within minutes, and using very cheap and simple hardware, to control these devices from your PC. You can use all devices that are supported by LIRC Project. List of all these devices you can find here. **Please remember THERE IS NO GUARANTEE THAT EVERY REMOTE CONTROL WILL WORK.** The hardware, that you will need to make yourself, contains only 3 parts: Arduino Nano Board, 200 Ohm resistor and IR Led.



The full circuit you can see below.



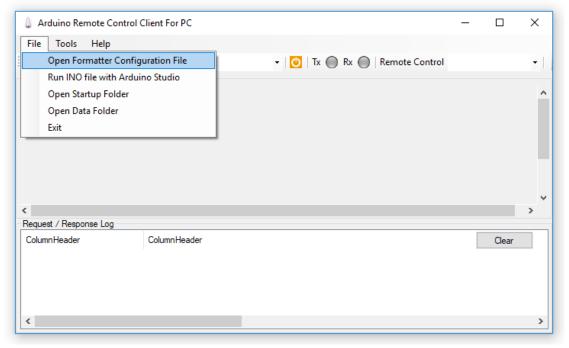
When the hardware is ready, you have to perform the following steps:

- 1. Download the desired Remote Control file from LIRC Database.
- 2. Get picture or photo of your remote control.

3. Now you have to convert the Remote Control file above to: RCRemote<RC Name>.xml file (It contains information about the Remote Control). RCRemote<RC Name>.h file (You can use it in various projects). ArduinoLIRC.ino file (You will need to upload it to Arduino Nano board in Arduino Studio). In order to do so you have:



- 1. Run Arduino LIRC PC Tools.
- 2. Configure formatter if needed (File / Open Formatter Configuration File).

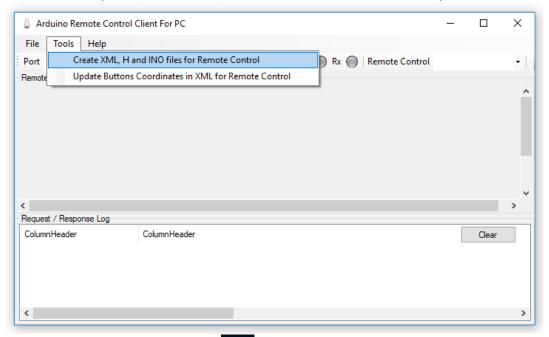


You will need translate unreadable (by C / C++) key names to readable ones.

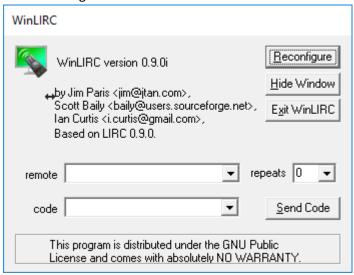
For example: ?,QUESTION

So key name: "?" will be replaced by the word "QUESTION"

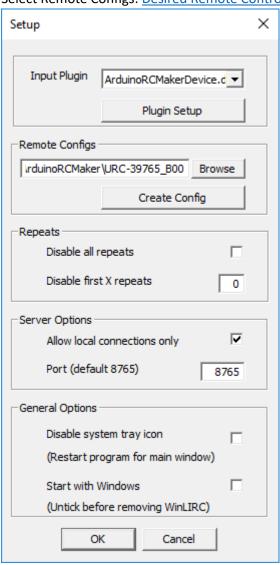
3. Run winlirc.exe (Tools / Create XML, H and INO files for Remote Control).



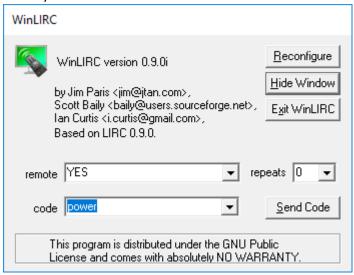
- 4. Right Click on this icon in tray menu
- 5. Click Toggle Window.
- 6. Click Reconfigure



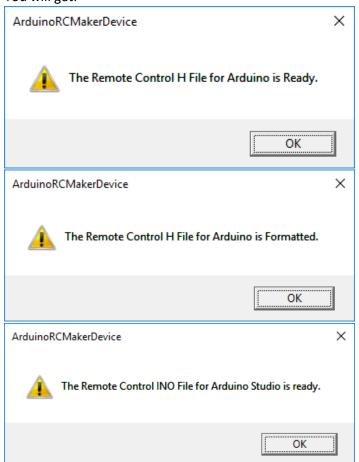
7. **Select (and Click on it)** Input Plugin: **ArduinoRCMakerDevice.dll.** Select Remote Configs: <u>Desired Remote Control File from WinLIRC.</u>

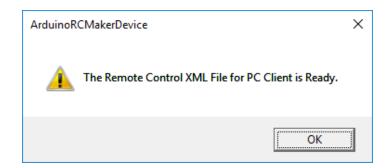


8. Select your Remote Control and Its first button.

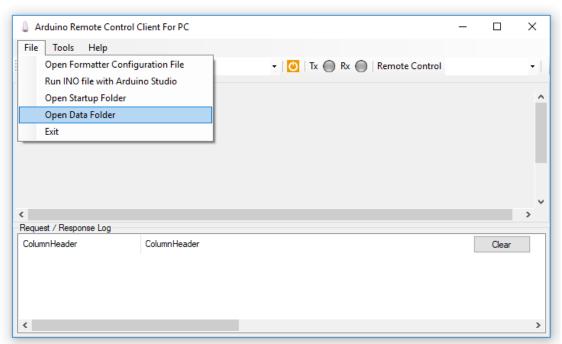


- 9. Click Send Code.
- 10. You will get:



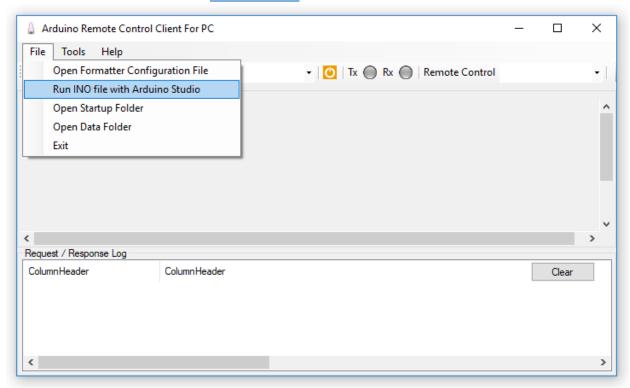


- 11. Right Click on this icon in tray menu and Exit WinLIRC.
- 12. Now you have 3 files:
 - ArduinoLIRC.ino
 RCRemoteYES.h
 - RCRemoteYES.xml
- 13. Now you have to put there the image of the Remote Control, you have prepared. Open Data Folder (File / Open Data Folder)



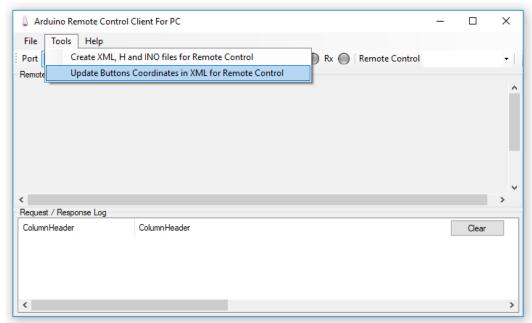
14. Put Remote Control image file RCRemote<RC Name>.png to the Data Folder. For YES Remote Control the file is RCRemoteYES.png

4. Run ArduinoLIRC.ino file with Arduino Studio.

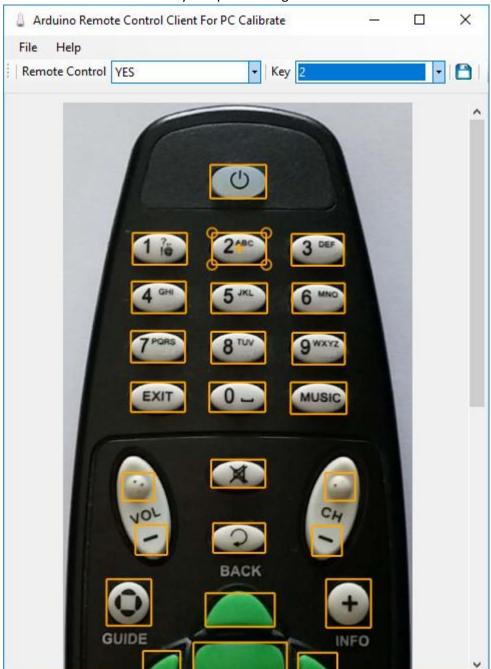


Remember: Arduino Studio must be installed!

- 5. Upload it to Arduino Nano development board.
- 6. Run Editor to assign Remote Control Keys to their areas on Remote Control image.
 - 1. Run: ArduinoRCClientForPCCalibrate.exe (Tools / Update Buttons Coordinates in XML for Remote Control)



- 2. If Apps Window is hidden, click on in the tray menu.
- 3. Select Remote Control and Key and put Rectangle over it.



4. Do this for all Keys and click **Save** button.

7. Now you can connect to your Arduino Board (connected to USB) via Serial Port (COMx).



8. Select your remote in combo and click on keys.