

Installation Tips For use with RPi

Steps:

Below are some tips on getting LIRC configured to work with AnalysIR..

1. On some systems LIRC may already be pre-installed. Check if the mode2 command in step 7 works already. If so there is no need to re-install LIRC. (Skip to step 7 if installed and optionally include step 4)
2. If not already installed, install LIRC on the RPi (see <http://alexba.in/blog/2013/01/06/setting-up-lirc-on-the-raspberrypi/>)
3. Make sure you follow the instructions on the above site
4. Also, select your pin number carefully, and make the changes to /etc/modules as described.
(We use GPIO17 or Header Pin 11 for LIRC's IR receiver so as not to confuse with the pins used in AnalysIR code for RPi)
So in our case the lines in /etc/modules change to (only if you want to copy our pin layout)
`lirc_dev lirc_rpi
gpio_in_pin=17 gpio_out_pin=22`
5. For some reason (can't remember why) we changed the /etc/lirc/lircd.conf file instead of the /etc/lirc/hardware.conf as described in the article, but it seems to work for us.
6. The LIRC stop & start commands don't work on our system, so we just restarted the RPi for the new settings to work.
However, if LIRC is already running on your system, you should stop it as follows to avoid conflicts: `/etc/init.d/lirc stop`
7. If you run the following command and press some keys on your remote control you should see some output in your terminal window, with pulses & spaces & timings.
`mode2 -d /dev/lirc0`
8. If successful your LIRC is configured correctly. If not, you have to repeat the above until you get LIRC working, remembering to make sure your IR receiver is wired correctly and to the correct pin on the RPi.
9. To install LIRC on RPi: follow instructions available on Internet and linked to in step 2 above.
10. Read the tips at the top of the included 'AnalysIRmodRPi.c' file for RPi.
11. **Command:** (Once LIRC is installed)
To use LIRC output via socat -> PC (for decoding with AnalysIR)
`mode2 -d /dev/lirc0 | socat - TCP-LISTEN:25,fork`
or (if the above needs more authority use sudo)
`sudo mode2 -d /dev/lirc0 | sudo socat - TCP-LISTEN:25,fork`
Command: (To measure modulation frequency)
Compile as follows: Also see instruction at top of 'AnalysIRmodRPi.c'
`gcc -o AnalysIRmodRPi AnalysIRmodRPi.c -lwiringPi`
Run as follows: (may need to use 'sudo' also) - binary output goes to SDOUT/terminal window
`cd /etc/wiringPi/sketches/sketch_AnalysIR_RPi
./AnalysIRmodRPi`
or with even higher priority (and better accuracy) use
`nice -n -20 ./AnalysIRmodRPi`
12. Then you follow the tips for installing & using AnalysIR on your Windows PC (if not already installed).

Tip: If you get permission issues with any of the commands above, place `sudo` before the command (leave a space after sudo).