Remote Controlling Your Raspberry Pi Hi-Fi Device

Remote Controlling Your Raspberry Pi Volumio Hi-Fi Device with DAC PiCobber

You are here:

With the help of Volumio system and Geekroo Hi-Fi DAC PiCobber, you can easily remote control your Raspberry Pi Hi-Fi device. Let's have a look how to make it happen.

What You Need

1. Raspberry Pi with Volumio system installed
2. Geekroo HiFi DAC PiCobber

How You Do It

STEP 1

Connect the IR Remote PiCobber to your Raspberry Pi, turn it on. Log in to the Raspberry Pi, install LIRC software:

```
sudo apt-get install lirc
```

STEP 2

Use you favourite text editor, edit the modules file:

```
sudo vim /etc/modules
```

Add the following two lines:

```
lirc_dev
```

```
lirc_rpi gpio_in_pin=18
```

STEP 3

Edit LIRC configuration file to enable IR functionality:

```
sudo vim /etc/lirc/hardware.conf
```

Make the modifications as below:

```
LIRCD_ARGS="--uinput"
DRIVER="default"
DEVICE="/dev/lirc0"
MODULES="lirc_rpi"
```

STEP 4

Restart your Raspberry Pi, check the IR receiver connection.

```
sudo ls/dev/
```

If you can see /dev/lirc0, it is working now.

STEP 5

Record the keys of your remote controller. Issue the following command:

```
sudo /etc/init.d/lirc stop
irrecord -n -d /dev/lirc0 ~/lircd.conf
```

Then you need to record “pause”, “nextsong”, “prevsong” and “stop” keys. Please just follow the instruction printed on the screen. After you’ve finished everything, the information of your remote

controller will be saved in `/home/pi/lircd.conf`

```
Don't stop pressing buttons until two lines of dots (2x80) have been
generated.

Press RETURN now to start recording.
.................................................................................
Found const length: 106849
Please keep on pressing buttons like described above.
irrecord: no data for 10 secs, aborting
Creating config file in raw mode.
Now enter the names for the buttons.

Please enter the name for the next button (press <ENTER> to finish recording)
pause

Now hold down button "pause".
Got it.
Signal length is 67

Please enter the name for the next button (press <ENTER> to finish recording)
nextsong

Now hold down button "nextsong".
Got it.
Signal length is 67

Please enter the name for the next button (press <ENTER> to finish recording)
prevsong

Now hold down button "prevsong".
Got it.
Signal length is 67

Please enter the name for the next button (press <ENTER> to finish recording)
stop

Now hold down button "stop".
Got it.
Signal length is 67

Please enter the name for the next button (press <ENTER> to finish recording)

pi@volumio:~$
```

STEP 6

Start LIRC:

```
sudo /etc/init.d/lirc start
```

Check if everything is working well, please issue the command:

```
irw
```

Then press the keys you just recorded. You should be able to see this:

```
pi@volumio:~$ irw
0000000000000004 00 stop /home/pi/lircd.conf
0000000000000001 00 pause /home/pi/lircd.conf
0000000000000003 00 prevsong /home/pi/lircd.conf
0000000000000002 00 nextsong /home/pi/lircd.conf
^C
pi@volumio:~$
```

STEP 7

Use your text editor to edit `.lircrc` file:

```
vim ~/.lircrc
```

Add the following code:

```
begin
        prog = irexec
        button = pause
        config = mpc toggle
end
begin
        prog = irexec
        button = nextsong
        config = mpc next;mpc play
end
begin
        prog = irexec
        button = prevsong
        config = mpc prev;mpc play
end
begin
        prog = irexec
        button = stop
        config = mpc stop
end
```

You can also add some other **mpc** code to this file. Please refer to: http://linux.die.net/man/1/mpc

STEP 8

Issue the command:

```
irexec -d
```

And you'll be able to control your device!

You can also add this command to `rc.local` file, to start it automatically when you Raspberry Pi starts:

```
sudo vim /etc/rc.local
```

Before `exit 0`, add:

```
(sleep 3;
sudo -u pi irexec -d
)&
```

Enjoy!!