**Based on RASPBIAN JESSIE**

Version: March 2016
Release date: 2016-03-18
Kernel version: 4.1

**HDMI setting**

***<1>***To ensure that the necessary kernel modules are loaded at boot

|  |
| --- |
| pi@raspberrypi **~ $**   sudo nano /boot/config.txt |

***<2>***Uncomment following three lines in config.txt by removing '#' located at start of the line. (check Images below)

  

**hdmi\_force\_hotplug=1**      pretends that HDMI device is always attached
**hdmi\_group**                            specifies whether monitor is DMT type (Computers) or CEA type (TV)
**hdmi\_mode**                            specifies the resolution of monitor.

***<3>*For hdmi\_group value selection**: If you’re using output as Computer monitor then replace value ’1′ with ’2′, so the new config will be like :

|  |
| --- |
| hdmi\_group=2 |

(Select value 1 for TV, Select value 2 for monitor)
***<4>*For hdmi\_mode value selection :** Now open **[eLinux RPi config](http://www.suptronics.com/miniPCkits/vga_resolution_en.html%22%20%5Ct%20%22_blank)** scroll down, there in hdmi\_mode two tables are given, select the correct resolution as per your monitor. (Table1 if you’re using TV & Table2 if you’re using Monitor)
Since my monitor’s resolution is 1440×900 px, hdmi\_mode=47 fits me the best. So, the modified config.txt will be like.

|  |
| --- |
| hdmi\_mode=47 |

 **Overall my uncommented lines will look something like :



*<5>*adding the "hdmi\_drive=2" line at the bottom



*<6>*Save your changes by pressing Ctrl-x then Y

*<7>*Reboot your Raspberry Pi**

|  |
| --- |
| pi@raspberrypi **~ $**   sudo reboot |
| Based on RASPBIAN JESSIEVersion: March 2016Release date: 2016-03-18Kernel version: 4.1HDMI setting<1> To ensure that the necessary kernel modules are loaded at boot

|  |
| --- |
| pi@raspberrypi **~ $**   sudo nano /boot/config.txt |

    <2> Uncomment following three lines in config.txt by removing '#' located at start of the line. (check Images below)   http://www.suptronics.com/images%203/vga1.png      hdmi\_force\_hotplug=1      pretends that HDMI device is always attachedhdmi\_group                            specifies whether monitor is DMT type (Computers) or CEA type (TV)hdmi\_mode                            specifies the resolution of monitor.<3> For hdmi\_group value selection : If you’re using output as Computer monitor then replace value ’1′ with ’2′, so the new config will be like :

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|  |
| --- |
| hdmi\_mode=47 |

Overall my uncommented lines will look something like : http://www.suptronics.com/images%203/vga2.png<5> adding the "hdmi\_drive=2" line at the bottom http://www.suptronics.com/images%207/hdmi%20setting.png<6> Save your changes by pressing Ctrl-x then Y<7> Reboot your Raspberry Pi

|  |
| --- |
| pi@raspberrypi **~ $**   sudo reboot |

<8> Mouse right click the speaker icon and select audio output of HDMI http://www.suptronics.com/images%206/x600%20setting%201.pngTesting the IR receiver<9> Installing LIRC

|  |
| --- |
| pi@raspberrypi **~ $**   sudo apt-get install lirc |

<10> Add the two lines below to /etc/modules . This will start the modules up on boot. Pin 8 bellow will be used to take the output from the IR sensor.

|  |
| --- |
| pi@raspberrypi **~ $**   sudo nano /etc/modules |

|  |
| --- |
| lirc\_devlirc\_rpi gpio\_in\_pin=2 |

http://www.suptronics.com/miniPCkits/images%201/ir_0%20-%20x3000%20(1).png<11> Save your changes by pressing Ctrl-x then Y<12> If you are using 3.18.x RaspberryPi firmware you must modify one additional file for the lirc-rpi kernel extension to be loaded:           Edit your /boot/config.txt file

|  |
| --- |
| pi@raspberrypi **~ $**   sudo nano  /boot/config.txt |

 |

and add:

dtoverlay=lirc-rpi,gpio\_in\_pin=2



***<13>***Edit /etc/lirc/hardware.conf and have it appear exactly as shown below.

|  |
| --- |
| pi@raspberrypi **~ $**   sudo nano /etc/lirc/hardware.conf |

# /etc/lirc/hardware.conf

#

# Arguments which will be used when launching lircd

LIRCD\_ARGS="--uinput"

# Don't start lircmd even if there seems to be a good config file

# START\_LIRCMD=false

# Don't start irexec, even if a good config file seems to exist.

# START\_IREXEC=false

# Try to load appropriate kernel modules

LOAD\_MODULES=true

# Run "lircd --driver=help" for a list of supported drivers.

DRIVER="default"

# usually /dev/lirc0 is the correct setting for systems using udev

DEVICE="/dev/lirc0"

MODULES="lirc\_rpi"

# Default configuration files for your hardware if any

LIRCD\_CONF=""

LIRCMD\_CONF=""

 ******The highlighted text are the parts that will need changing, though it’s worth checking the rest of the text incase you have a different initial configuration.

***<14>***Save your changes by pressing Ctrl-x then Y ***<15>****Reboot the Raspberry Pi*

|  |
| --- |
| pi@raspberrypi **~ $**   sudo reboot |

 ***<16>***Run these two commands to stop lircd and start outputting raw data from the IR receiver:

|  |
| --- |
| pi@raspberrypi **~ $**   sudo /etc/init.d/lirc stop pi@raspberrypi ~ **$**   mode2 -d /dev/lirc0 |

 ***<17>***Point a remote control at your IR receiver and press some buttons. You should see something like this:
 **