

How to configure Joystick (Gamepad) on Debian, Ubuntu, Mint GNU / Linux easily

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"All work and no fun makes Jack a dull boy"

If you own a *PC joystick* and you're a gamer who just migrated to *GNU / Linux* and you enter the wonderful world of Linux gaming (haha what wonderful world its nightmare :), perhaps you will want an easy way to make your Joystick work on GNU / Linux.

In this article I'll try my best to explain how you can relavately easy make your *Linux joystick* (joy stick :)), bring you the happiness of playing old arcades in an old school joystick way.

1. Install necessary packages for joystick under Linux

If above cat command returns a bunch of weird signs in your terminal, that means the joystick was successfully detected and should be working.

3. Load Joystick necessary Linux modules if your Gamepad is not properly detected

Note that I assume you're super user most of below commands are preferrably to be run as root:

If you're Gamepad is not detected, you'll have to manually create **/dev/input/js0**

```
gamelinux:~# cd /dev/input
gamelinux:~# MAKEDEV js0
```

Further on you'll need to perhaps load at least the following 3 modules which gives support for a number of JoySticks / Gamepad devices

```
gamelinux:~# modprobe joydev
gamelinux:~# modprobe ns558
gamelinux:~# modprobe sidewinder
gamelinux:~# modprobe gameport
```

Just in case if you're planning to play old Arcade games I recommend you load also following bunch of modules:

```
gamelinux:~# modprobe snd-seq
gamelinux:~# modprobe 3c59x
gamelinux:~# modprobe snd-emu10k1
gamelinux:~# modprobe snd-pcm-oss
gamelinux:~# modprobe snd-mixer-oss
gamelinux:~# modprobe snd-seq-oss
```

If you get an error message and don't succeed to calibrate your gamepad, you need to look under to know the modules that fit your Joystick model.

For a MS Sidewinder gamepad

```
gamelinux:~# modprobe joydev
gamelinux:~# modprobe ns558
gamelinux:~# modprobe sidewinder
gamelinux:~# modprobe analog

## This one work only for analog pad, like joysticks
```

For a Logitech WingMan digital gamepad

```
gamelinux:~# modprobe joydev
gamelinux:~# modprobe ns558
gamelinux:~# modprobe adi

## Specific driver for Logitech gamepads
```

For a Logitech WingMan gamepad (analog)

```
gamelinux:~# modprobe joydev
gamelinux:~# modprobe ns558
gamelinux:~# modprobe analog
## Module for analog gamepads
gamelinux:~# modprobe pcigame
## Module for PCI card (??)
gamelinux:~# modprobe adi

## Module for Logitech pads
```

For a MS SideWinder ForceFeedBack Pro

```
gamelinux:~# modprobe joydev
gamelinux:~# modprobe ns558
gamelinux:~# modprobe analog
gamelinux:~# modprobe sidewinder
gamelinux:~# modprobe iforce
## Force Feedback driver

gamelinux:~# modprobe evdev
```

For a Guillemot dual analog gamepad (gameport, non-USB)

```
gamelinux:~# modprobe joydev
gamelinux:~# modprobe ns558
gamelinux:~# modprobe guillemot
gamelinux:~# modprobe analog
## to check
gamelinux:~# modprobe iforce
## to check
```

If auto-detect of joystick doesn't work (hopefully not your case)

```
gamelinux:~# modprobe usbhid
gamelinux:~# modprobe joydev
```

- Enable Joystick for KDE Users

Luckily though historically the *kcontrol* package was required but nowadays, KDE users could usually calibrate joystick via *KDE K Control Centrer*

To make joystick configuration permanent on Linux you need to add the modules that worked with your Joystick device to **/etc/modules**,

for eample I own

JOYSTICK GENIUS MAXFIRE G-08XU

And my

/etc/modules file

looks like so:

```
gamelinix:~# cat /etc/modules
```

```
# /etc/modules: kernel modules to load at boot time.
#
# This file contains the names of kernel modules that should be loaded
# at boot time, one per line. Lines beginning with "#" are ignored.
snd-seq
3c59x
snd-emul0k1
snd-pcm-oss
snd-mixer-oss
snd-seq-oss

joydev
```

In case of some problems with SoundCard conflicting joystick or the other way around you might also want to add into **/etc/modprobe.d/options** something similar to

```
gamelinix:~# vim /etc/modprobe.d/options
```

```
gamelinix:~# options snd_ens1371 joystick_port=1
```

4. Calibrate your joystick either using jstest / jscal commands or GNOME's jstest-gtk

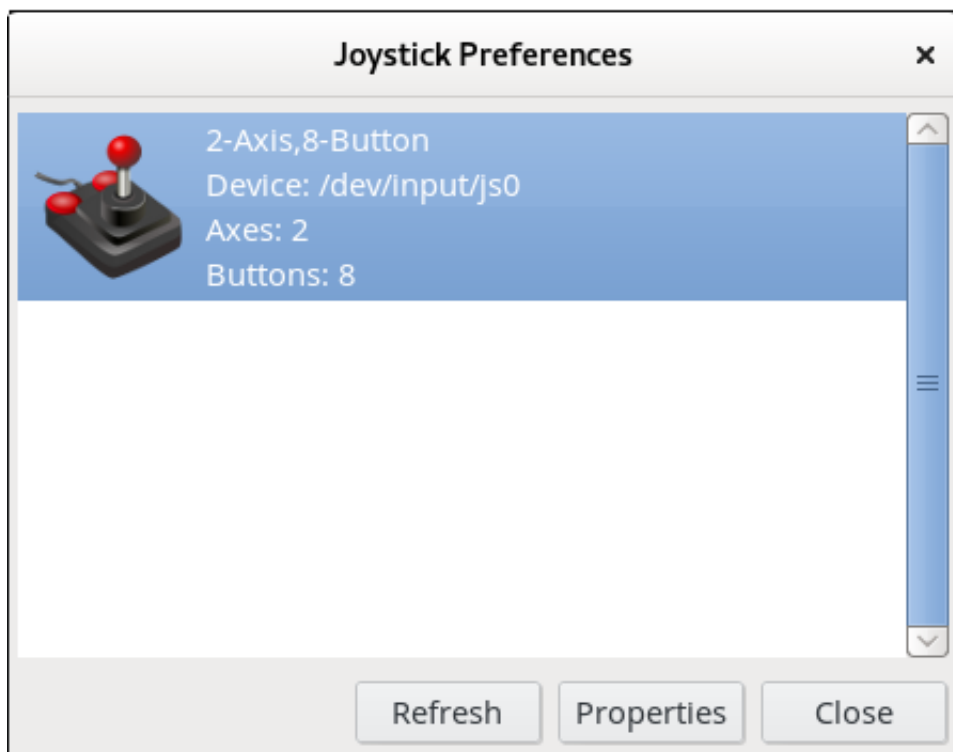
To calibrate joystick in text mode use below commands

```
jscal /dev/input/js0

jstest /dev/input/js0
```

For the lazy ones you can calibrate your joystick via GNOME's graphical tool **jstest-gtk**

jstest-gtk



This article is just a basic explanation on how to make your joystick work, for thoroughful advanced explanation on JoySticks and Gamepads I recommend [ArchLinux Wiki explanation on how to configure Gamepads](#)

5. Create missing Symlinks from /dev/input/js0 to /dev/js0

I've personally experienced a problem with *Xmame* / *Xmess* (Multimedia Arcade Emulator) and other old arcade Virtual Machine Emulators that are supposed to recognize the joystick, but

because it is common that the joystick is trying to be invoked via `/dev/js0` `/dev/js1` (depending on its model), but somehow this links are missing, thus I had to manually create the links with *ln* command, like so:

- For `/dev/input/js0` to link `/dev/js0`

```
cd /dev; ln -sf /dev/input/js0;
```

- For `/dev/input/js1` to link `/dev/js1`

```
cd /dev; ln -sf /dev/input/js1;
```