Packaging status	
ALT Linux p11	0.8.0
ALT Sisyphus	0.8.0
AUR	0.8.2
Exherbo	0.8.0
nixpkgs stable 23.05	0.7.2
nixpkgs stable 23.11	0.8.0
nixpkgs stable 24.05	0.8.1
nixpkgs unstable	0.8.1

Oversteer - Steering Wheel Manager for Linux

Oversteer manages steering wheels on Linux using the features provided by the loaded modules. It doesn't provide hardware support, you'll still need a driver module that enables the hardware on Linux.

Most wheels will work but won't have FFB without specific drivers that support that feature.

I can test only on a Logitech G29 Driving Force. Please, report your results with other devices. More wheel models will be added to this list as they are requested.

Use at your own risk. Suggestions, bugs and pull requests welcome.

Supported devices

Oversteer maintains a list of known wheel devices. If your wheel isn't recognized, please contact me.

This section lists devices currently recognized. Being in this list doesn't imply good hardware support. **When thinking about buying a wheel don't rely solely on the information here**.

Oversteer recognizes the following Logitech wheels which are supported by the default in-kernel module:

- Wingman Formula GP
- Wingman Formula Force GP
- Driving Force / Formula EX
- Driving Force Pro
- Driving Force GT
- Momo Force
- Momo Racing Force
- Speed Force Wireless
- G25 Racing Wheel
- G27 Racing Wheel

- G29 Driving Force Racing Wheel (PS3 mode)
- G920 Driving Force Racing Wheel
- Logitech G923 for XBox (since Linux 6.3)
- OpenFFBoard, (https://github.com/Ultrawipf/OpenFFBoard).

Wheels using the Logitech driver (except XBOX/PC versions) can get improved support using new-lg4ff, with more effects and features. Some games won't have full FFB without it.

The following wheels will need custom driver modules for FFB support. These drivers are still being worked on. **(I'm NOT claiming they will fully work. Please, check the related projects for more information.)**:

- Logitech G923 for PS/PC with new-lg4ff.
- Thrustmaster T150 with t150_driver.
- Thrustmaster TMX Force Feedback with t150_driver.
- Thrustmaster T300 RS with hid-tmff2.
- Thrustmaster T248 with hid-tmff2.
- Thrustmaster TS-XW Racer with hid-tmff2.
- FANATEC CSL Elite Wheel Base with hid-fanatecff.
- FANATEC CSL Elite Wheel Base PS4 with hid-fanatecff.
- FANATEC ClubSport Wheel Base V2 with hid-fanatecff.
- FANATEC ClubSport Wheel Base V2.5 with hid-fanatecff.
- FANATEC Podium Wheel Base DD1/DD2 with hid-fanatecff.
- FANATEC CSL DD / GT DD Pro Wheel with hid-fanatecff.

These wheels are recognized but don't have driver support (Force Feedback and other features won't work):

- Thrustmaster Force Feedback Racing Wheel
- Thrustmaster TX Racing Wheel
- Thrustmaster T500 RS
- Thrustmaster T80
- Thrustmaster Ferrari 458

Features

When supported by the device and the driver:

- Change rotation range.
- Change emulation/working modes.
- Combine accelerator/brakes pedals for games that use just one axis.

- Change autocentering force strength.
- Change force feedback gain.
- Device configuration profiles.
- Overlay window to display/configure range.
- Use wheel buttons to configure range.
- Hardware performance testing.
- Combine accelerator/clutch pedals. Useful for flight simulators. (Not supported with in-kernel modules)
- Change global force feedback gain. (Not supported with in-kernel modules)
- Change each conditional force feedback effect type gain. (Not supported with in-kernel modules)
- FFBmeter to monitor FFB clipping using wheel leds or overlay window. (Not supported with in-kernel modules)

Installation

Packaging status	
ALT Linux p11	0.8.0
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nixpkgs stable 24.05	0.8.1
nixpkgs unstable	0.8.1

Arch

User DNModder has created an AUR package. Install following the Arch Wiki instructions.

Gentoo

User gripped has created a Gentoo ebuild.

Other distributions

Requirements   Install all dependencies on Debian systems with the following command:

```
apt install python3 python3-distutils python3-gi python3-gi-cairo
python3-pyudev python3-xdg python3-evdev gettext meson appstream-util
 desktop-file-utils python3-matplotlib python3-scipy
```

Install all dependencies on Fedora systems with the following command:

```
dnf install python3 python3-distutils-extra python3-gobject python3-
pyudev python3-pyxdg python3-evdev gettext meson appstream desktop-
file-utils python3-matplotlib-gtk3 python3-scipy
```

Install all dependencies on OpenSUSE systems with the following command:

```
zypper in python3 python3-distutils-extra python3-gobject python3-
pyudev python3-pyxdg python3-evdev meson AppStream desktop-file-utils
 python3-matplotlib-gtk3 python3-scipy gettext-tools
```

For other distributions, use your package manager to find and install the equivalent packages.

Permissions   Accessing the wheel settings requires some permissions.

Oversteer **will automatically install udev rules to grant these permissions to any user in the system after a reboot.**

By default, the udev rules will be installed at `/usr/local/lib/udev/rules.d` when installing to prefix `/usr/local` or `/lib/udev/rules.d` when installing to any other prefix. The location can be changed using meson option `udev_rules_dir` but it shouldn't be required except maybe for packagers.

Older rules might be already installed at `/etc/udev/rules.d` or `/lib/udev/rules.d`. You may need to remove these files manually in case you're experiencing issues with permissions.

The installed udev rules files will have these names:

- 99-`fanatec-wheel-perms.rules`
- 99-`logitech-wheel-perms.rules`
- 99-`thrustmaster-wheel-perms.rules`

Build and install   Start by downloading `Oversteer` and change your working directory to it. It could be a release package or the master branch.

```
1  git clone https://github.com/berarma/oversteer.git
2  cd oversteer
```

Prepare build system:
```

```
1  meson build
2  cd build
```

Installing (needs administration rights):

```
ninja install
```

A reboot will be needed to reload the newly installed udev rules. Alternatively, running the command `udevadm control --reload-rules && udevadm trigger` will do the same.

Uninstalling   Run these commands inside the project directory to uninstall:

```
1  cd build
2  ninja uninstall
```

Updating   To avoid leaving old files behind, it's recommended to always uninstall the old version first, then install the new version.

Follow the uninstall instructions for the old version, then follow the install instructions for the new version.

Using it

Oversteer can be launched as any desktop application. It doesn't need to be running for the settings to remain changed, but some features require it.

It can also be used from the console to change wheel settings. Run `oversteer --help` to see the command line help.

Leillo1975 has kindly created a video explaining the basics of Oversteer (Spanish).

Using it as a companion app to your games

You can configure game launchers to run *Oversteer* and load a profile or change settings so that it automatically configures the wheel when the game runs. When the game exits the app will close too. Please, refer to the command line help for more info.

It can also stop before the game runs so you can change some settings manually each time. This can be done from the command line or from a setting in the UI.

An example that would work for any Steam game would be:

```
oversteer -p myprofile -g "%command%"
```

Known issues

- Most drivers don't support Global Gain and Autocenter settings, only **new**-lg4ff for now. The Linux API is used instead when they aren't available. If this happens, Oversteer has to reset their values everytime it starts. Also, games will be able to override these settings.

Updating translations (for translators)

From the project root directory:

```
1  ninja oversteer-pot
2  ninja oversteer-update-po
```

Contributing

We could all greatly benefit from your help as with any other free software project.

Reports about what works and what not on different devices and systems are very welcome. You can also help by contributing specific notes for your distro, or doing the packaging work and everything else.

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