

FPV

FREERIDER

RC Quadcopter Racing Simulator

Features:

FPV/LOS view
Self-Leveling/Acro mode
Touch screen/Keyboard/USB Controller input
USB Controllers can be configured for mode 1 – 4
Ability to adjust settings for rates, camera and physics

Default setting is mode 2:
Left stick – Throttle, Yaw
Right stick – Pitch, Roll

Keyboard shortcuts are:

C (or space) - Toggle camera (FPV/LOS)
L - Toggle self-leveling/acro mode
R - Reset quad to starting position
T – Timed race
P – Pause
V – Temporarily hide the on-screen buttons when flying.
esc - Exit to menu

(If selecting Keyboard as input you can fly with arrow keys plus WASD. Keyboard control is absolutely not recommended, it is really just for testing only).

It is highly recommended to use a USB controller.

Most USB controllers should work* if you have the correct cable/dongle/interface, although it might take some setting up. Generally – if your controller can be recognized as a joystick on your device, chances are you can use it to control FPV Freerider.

In order to use USB controllers on Android, your device needs to support USB OTG, and you will need the appropriate USB OTG adapter.

Please try the free version first to see if it works with your controller.

* Controllers that have been successfully used include Reaflight and Esky USB Controllers, Xbox, PS3 and Logitech gamepads, FrSKY Taranis, Spektrum, Flysky, Graupner and Futaba RC radios.
The HobbyKing 6ch flight simulator USB controller is known to *not* be compatible with the sim.
See the FAQ/Trouble shooting tips for more info on how to set up your radio.

Controller Setup

After you have made sure that your controller is recognized in your operation system, select “Calibrate Controller” on the main menu screen of FPV Freerider.

Follow the on-screen instructions.

All other sticks other than the one currently being calibrated should be centered. That includes the throttle stick! It should be centered, not at the bottom.

To make sure everything is working as it should you can keep an eye on the circles just above the OK button. Ideally, all the circles will be in a straight line when no input is given. You should be able to move some of the circles smoothly up and down using your controller sticks.

Make sure you hold the stick that is currently to be calibrated all the way in the direction shown while clicking OK. The circle corresponding to the stick that is detected will change to display an abbreviation of the stick name (yaw,throttle,roll,pitch).

(Default is Mode 2. In the controller setup you have the opportunity to configure for different modes by using an alternative stick than the one shown in the picture. Use the stick corresponding to the one shown on the top of the screen, for example "Yaw Left").

If you have several input devices (such as other joysticks, pedals or steering wheels) connected, that may cause a conflict with the input manager. If you're having trouble calibrating your controller, make sure all other input devices other than the one you intend to use are disconnected.

If needed, it is possible to manually override the automatic stick detection. Instead of clicking OK you can click on the circle that you wish to assign the stick to. You will still need to keep the stick all the way in the direction shown while clicking in order for the calibration to work correctly).

(The movement of the little circles on the calibration screen shows exactly what can be read through the input manager. If all the circles are not lined up straight, or you are not able to move some of them smoothly both up and down you need to calibrate your controller in your operating system or alter some settings on the controller itself (such as trim, midpoint or range settings). Most controllers will work fine with a bit of setting up, but there is no guarantee that your particular controller will work with your particular system. Try the free version first to see).

After calibration, you will be taken to a test screen where you can try the stick input. When sticks are centered, the circles should be in the middle. When stick input is given, ideally you will be able to move the circles smoothly all the way out to the corners of the grid. Here you have the opportunity to manually add digital trim.

If you are using a RC controller you will probably want to select "Throttle zero at bottom" and "Dead zone off" on the main menu.

Graphics Settings

Use the selector on the left of the main menu to set graphics quality. The recommended setting is "Highest". If you are getting low framerate you might want to select one of the lower quality settings. Running the simulator at lower resolution also helps the framerate a lot.

If you wish to run the game at a different resolution in Windows you can add command line parameters to the .EXE file. (Command line parameters will work on OS X and Linux too I believe).

For example:

```
-screen-fullscreen 0 -screen-width 1280 -screen-height 720 -popupwindow
```

This will run the game in a 1280x720 pixels window with no borders.

On Android you have the option to select between high and low resolution via buttons on the main menu.

Custom Settings

In the full version there is a Custom Settings screen where you can adjust settings for rates, camera and physics.

If you want your quad to perform more snappy and agile, the easiest way is to simply lower the Mass to something like 0.5

If you want a more relaxed flying experience you might try to increase the mass, that will make the quad more sluggish.

FAQ/Troubleshooting tips:

How do I connect my transmitter?

There are several alternatives:

1. Directly via USB - Some transmitters work directly plugged in via their USB port. That is the case with FrSKY Taranis and some Walkera Devo radios.

The Taranis seems to most often work just plugged in as it is via USB on OS X and Android. Here is instructions for setting up your Taranis radio for use with Windows:

<https://drive.google.com/file/d/0BwSDHIR7yDwSOGhPMTFyWEpDVWMM/view?usp=sharing>

Note: If you are flashing your Taranis with new firmware, make sure you deselect the "mass storage" option, otherwise joystick emulation is disabled.

Here is a model ini file for Devo 7E/Devo 10:

<https://drive.google.com/file/d/0BwSDHIR7yDwSM0ZPam9LY3N4ZXc/view?usp=sharing>

2. USB Dongle

You can try to connect your transmitter using a universal USB flight simulator dongle. Some of them have switches on the side. In that case, find the position that works with your transmitter.

Note: The Phoenix proprietary dongle does *not* work with FPV Freerider, it is deliberately made to work only with the Phoenix simulator I believe.

3. 3.5mm audio cable.

A lot of Spektrum users are using this method successfully.

Download the application called "SmartPropoPlus" from <http://www.smartpropoplus.com/site/> and install it.

Hook your radio up with a standard 3.5 mm audio cable and plug it into one of your soundcard speaker ports.

Mono cables are reported to work the best. SmartPropPlus and vJoy will detect the PPM pulses and transform them into a joystick driver. You can find more information regarding this method in the Spektrum tips and tricks document:

<https://drive.google.com/file/d/0BwSDHIR7yDwSaHNwcmZuQm1NeG8/view?usp=sharing>

It doesn't work with my transmitter. Only three of the four axis works:

Here are some suggestions:

- Make sure you don't have any other joysticks/controllers connected, that might cause a conflict.
- Make sure you have "Heli" selected as model type on your radio. ("Plane" generally doesn't work so well).
- If you're having trouble with calibration with a USB dongle, make sure you uninstall vJoy and Smartpropoplus if you have that software installed on your computer.
- If you're using a USB dongle - check if there's a switch on the dongle where you can select different modes.
- Perhaps you can remap the output channels (in the menu of the transmitter) so that it sends to another channel.
- If you have tried connecting your transmitter using a USB dongle with no luck, you might want to try the 3.5mm audio cable method which is described earlier in this document.

Since I updated to Windows 10, FPV Freerider won't work:

That problem is most often solved by updating your graphics card drivers (or sound card drivers).

Mac installation troubleshooting, four possible solutions:

“Running OSX 10.10.4 (Yosemite) on MacBook Pro from 2010, when I try to open the app, it says: 'The application “FPVFreerider” can't be opened”

1. If you unzip the file on a Windows machine and transfer the file to your mac with a USB stick it should work.
2. Better solution for anybody else who has this problem. OS X is picky about which programs can be run (the first time) by double-clicking. To run a program that says "this can't be opened", right-click the icon and choose "Open". You'll be given an option to open the program, and from then on it won't bug you.
3. For Mac's having trouble installing FPV Freerider try going to the Mac's System Preferences>Security and Privacy> General Tab and check the box "Anywhere" to see if this allows your Mac to install FPV Freerider.
4. For anybody who is still having the issue of the simulator not opening on OSX 10 - you need to open up terminal and type `sudo chmod +x (fpvfreerider.app)` and that should do it.

For FPV Freerider Recharged that should be `sudo chmod +x ~/Applications/FPVFreerider_Recharged.app`

Is it possible to assign the keyboard shortcuts to a switch/button on my transmitter?

Yes, you can use a separate piece of software to do that:

For Windows: <http://joytokey.net/en/>

For Linux: <http://www.lgdb.org/tool/antimicro>

How do I run the simulator on Linux?

FPV Freerider is distributed as a Linux executable, not a package.

Create a "bin" folder in your home directory, this isn't necessary but traditionally, binary executables go in the bin folder. Unzip Freerider_Linux.zip into that directory. Open Freerider_Linux. Right click on the appropriate executable for your system (32 or 64 bit), and select 'Properties'. Click the 'Permissions' tab. At the bottom of that tab check: 'Execute: Allow executing file as a program'. Now when you want to play, just double click that icon.

<http://fpv-freerider.itch.io/fpv-freerider>

<https://play.google.com/store/apps/details?id=com.Freeride.Freerider>