

Input-devices for the Crazyflie client

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The Crazyflie graphical control client needs an input-device (joystick) with a minimum of 4 analogue axes to be able to pilot the Crazyflie. The Playstation 3 controller is supported out of the box but the application supports creating new configurations that uses other controllers. This page details what controllers are supported out of the box, how to create a new configurations and how to debug problems.

Steps to get the controller working ☞

Here's a few steps that you have to go through in order to get the input-device working. If any of the steps are not working then the input-device will not be usable for piloting the Crazyflie:

- The input-device needs to be recognized by the host operating system. This means that it should be seen in the operating system and be usable in other applications or utilities.
- When using the Crazyflie graphical control client you need at least the correct mappings for roll/pitch/yaw/thrust. This can be checked by opening the *Flight Data* tab. If the input-device is found and opened then you should see values in the *Target* fields for *Roll*, *Pitch*, *Yaw* and *Thrust*. Moving the analogue axis should show you output here. Make sure that you get the full span according to the settings on the left side of the tab. I.e if the setting for *Max roll/pitch* is 20 then you should be able to get from -20 to + 20 in the target field (and the same for yaw and thrust). Also make sure that none of the axis interact (like moving roll will also move pitch).
- If you aren't getting any output at all and you are using the Playstation 3 controller, then press the "Playstation" button in the middle on the controller once.
- If the mappings are not correct in the previous point go to the menu *Input-device->Configure device mapping*, select the device you would like to configure and go through the configuration by clicking detect on each of the items in the dialog (everything has to be configured). Lastly enter the name of the configuration (without file extension) and press save. Now restart the application and try again.
- It can happen be that another USB device other than your controller is recognized. Then it might be necessary to blacklist the USB device in the cfclient's config.json file. Check out the config file explanation ([/documentation/repository/crazyflie-clients-python/master/development/dev_info_client/#user-configuration-file](#))

Input device overview

Below is a list of controllers and the status for different OSs. The list is far from complete so if you have more info please edit or drop us an email.

Controller	Linux USB	Linux BT	Win XP USB	Win XP BT	Win7 USB	Win7 BT	Win8 USB	Win10 USB	Win 11 USB	Mac OSX USB	Mac OSX BT
Playstation 3 (or copy)	Works	Works	Works	Works	Works	Works	Works,	Works	Not tested	Works	Works
Xbox 360 (or copy)	Works	N/A	Works	N/A	Works	N/A	Works	Works	Works	Not tested	Not tested

Playstation 3 controller

Linux using Bluetooth

How to set up Sixaxis on Ubuntu (<https://help.ubuntu.com/community/Sixaxis>) (tested on Ubuntu 13.10)

Win7 using USB

There's support for this using MotionJoy, **but** the mapping of the axis is not the same as for Windows XP/Linux and has to be configured. **TODO** Insert instructions for re-mapping.

Video on how to get started with MotionJoy (<http://youtu.be/b2IUxNShIDs>).

Win7 using Bluetooth

Should work using MotionJoy but this needs confirmation.

Win8 USB

Instructions (<http://www.wikihow.com/Set-Up-USB-Game-Controllers-on-Windows-8>)

Mac OSX with Bluetooth

To pair the controller follow the steps outlined here (<https://gist.github.com/statico/3172711>). **TODO:** This procedure is somewhat shaky. Figure out and add a solid set of steps here.

NOTE: To shut down the controller you need to disconnect the controller from OSX. This is easiest done if you enable in in System Preferences -> Bluetooth enable Show Bluetooth status in menu bar. From the menu bar item you can easily disconnect it.

Xbox 360 controller

Linux using USB

INFO: All modern Linux distribution now have a kernel driver for the x-box gamepad. Thus it is unlikely the *xboxdrv* user-space driver is needed.

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