LeViteZer Control Software

For controlling LeViteZer gimbals and cameras.

Table of Contents

Disclaimer

Every thing here in this manual is subjected to be changed. Information and screenshoots may be different from the final product.

Current version is still an Alpha version, which means that some features might not work or might be unstable.

Version Notes and Change-log

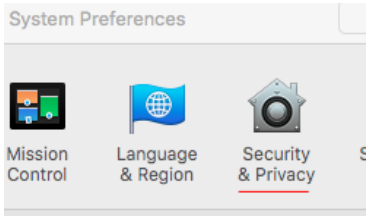
Last version: v0.5.8

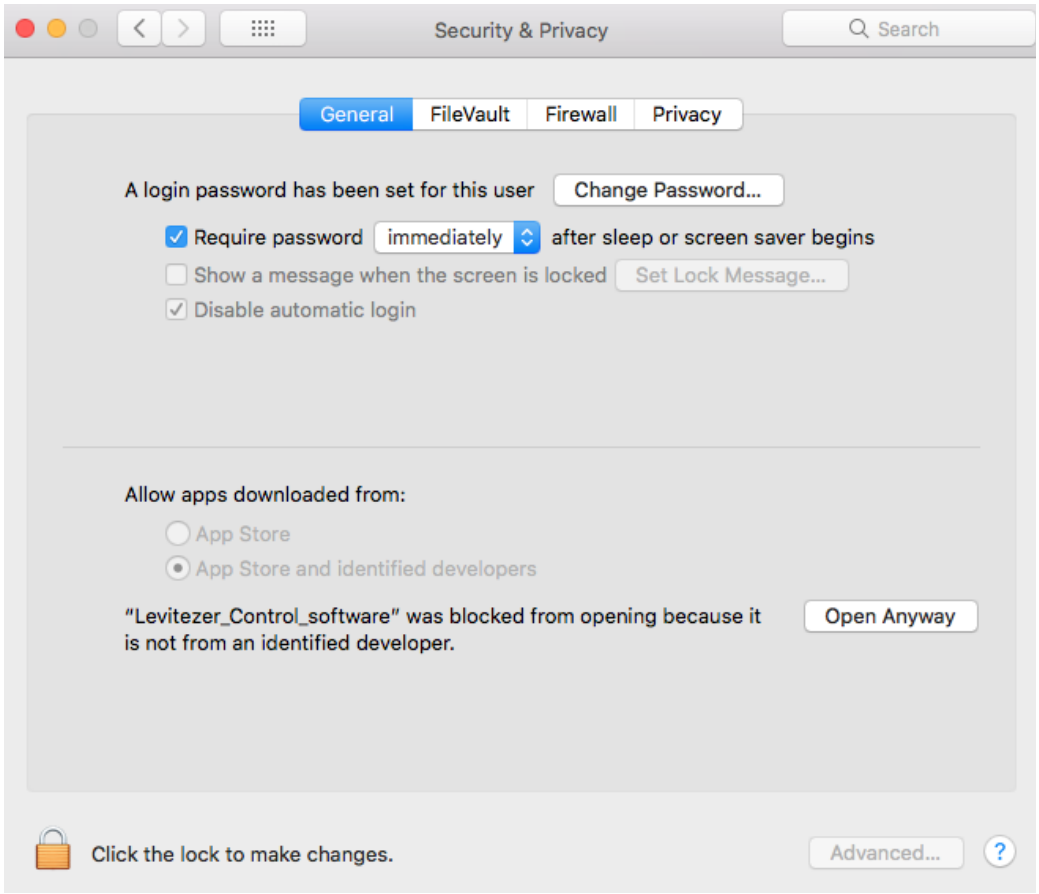
In this version Settings tab was removed. Will be back soon.

Start Here

Installing

Once you download the file, you need to give permission to be opened. The first attempt to open the application will warn you this is a no secure application because it was download from Internet browser. Accept the dialog and then open Security and Privacy on System Preferences, then a “Open Anyway” button show up. After clicking it the app show run. Note that you only need to do this after download only.



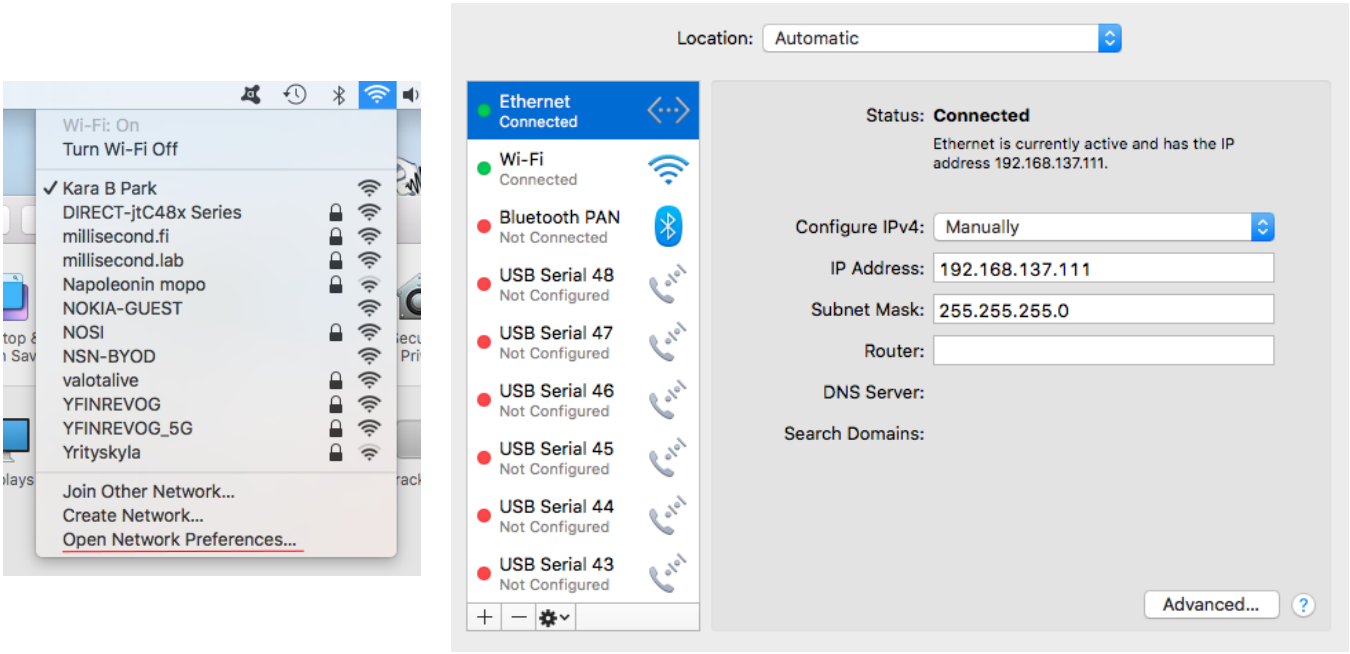


Then place the application file whenever you want. It will be able to open just fine.

Connecting the software to The gimbal over Network

The gimbal has a fixed ip 192.168.137.222 In the future this could be set to different number and could be automatic. But for know you need to change your computer IP so that the gimbal and the computer are in the same network.

- First connect a Ethernet cable to the computer
- On Mac you can do this by opening “Open Network Preferences” in the network icon on the desktop upper bar → select “Ethernet” on the left list → choose “Manually” on “Configure

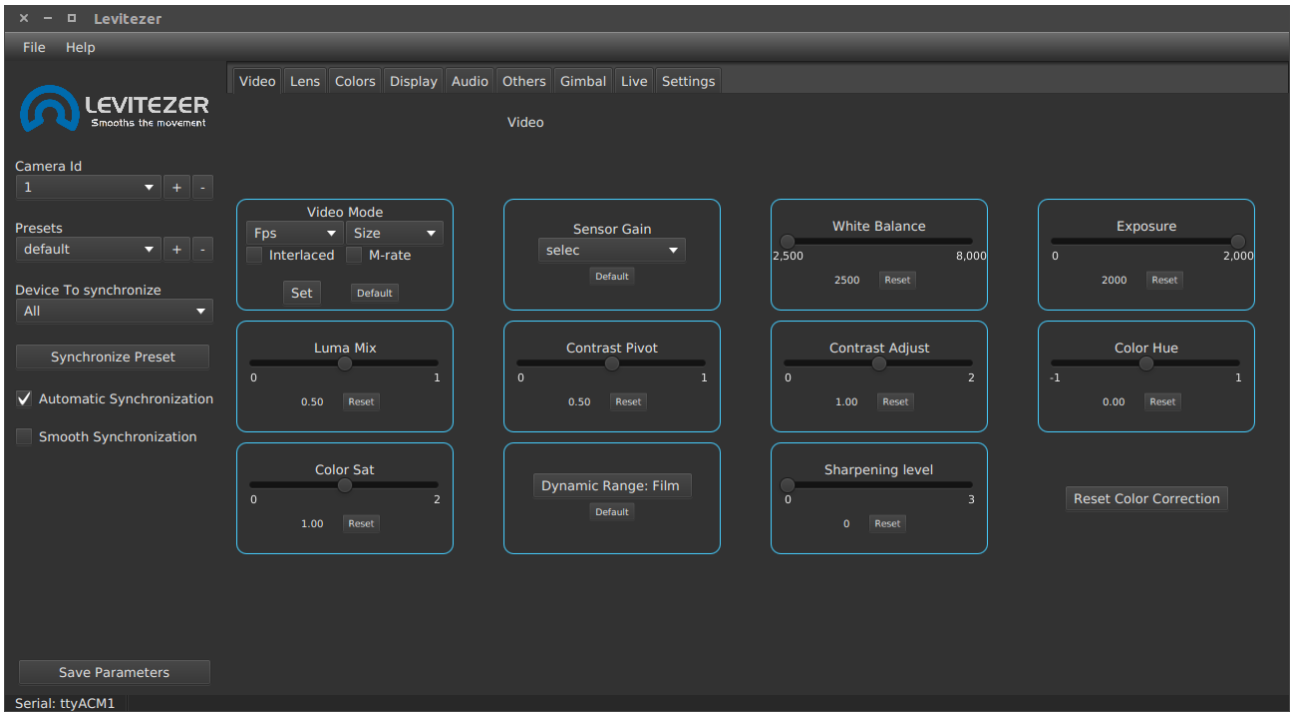


IPv4” field and fill the following text fields

- IP address = 192.168.137.x (x could be any number between 2-254 like 111)
- subnet mask = 255.255.255.0

To start the communication, restart the camera, the gimbal and use any control like the joystick or a color wheel.

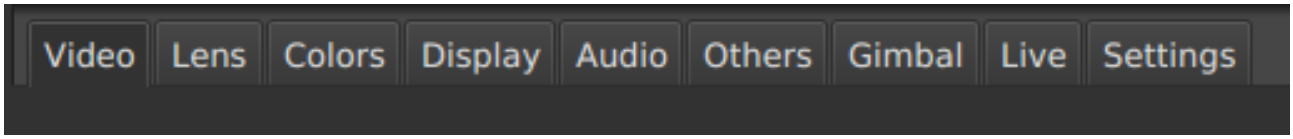
Overall view of the application



Tabs section

On this section every tab shows a group of parameters that can be controlled from the application. From Video to Others there are camera parameters. Gimbal controls have its own tab. Live tab takes care of using presets on live. And “Settings” are the application related settings.

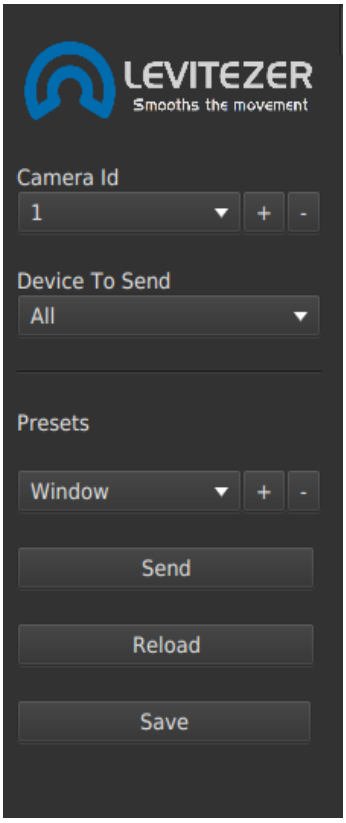
All the controls can be used on real time



Foot section

Here it is shown information related to communication with devices. In general green message are informative while red ones are errors. The first Message (white) is the current selected communication method, In this case communication is over UDP protocol. If communication is over serial port, the port name shall be shown as well.

Left column section: Presets and Devices to control



On the left there are settings related to the creation of presets and selection of the devices to control.

Once a preset is created you can save the status of all parameters by clicking “Save” button. Then this preset can be sent every time you click “Send”. “Reload” button does the same that selecting a preset on the list; so it can be useful for discarding the changes done to a preset.

Selections

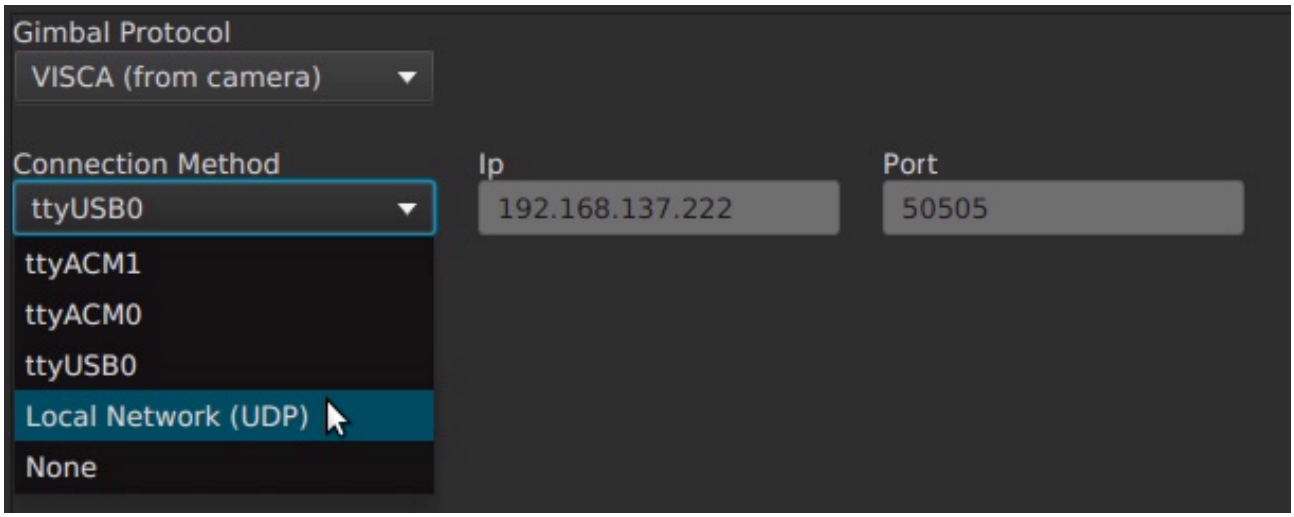
- Camera Id: the camera to work with. Camera id can be added by clicking ‘+’ button
- Presets list: the current preset. The preset is loaded when selected. New presets can be created using the ‘+’ button. Likewise they may be deleted using the ‘-’ button.
- Device to synchronize:
    - All: will send current parameters to all devices
    - Gimbal only: will send current parameters to the gimbal only
    - Camera only: will send current parameters to selected camera only

Menu

Menu is not working yet

Connectivity

Connectivity is adjusted on the settings tab. We can choose the protocol to connect to the gimbal and camera on the “Connection Method” selection box.



Usb over serial connection

On “Connection Method” selection box is shown all the serial ports available. On Linux and Unix (including mac osx) this port is always a file of the type “/dev/tty*”. On Windows the name will be “COM” and a number.

Ethernet connection through UDP

If we choose “Local Network UDP” as the communication method then we need to specify the Ip of the gimbal and the port number. Also keep in mind that your computer must be connected to the same network as the gimbal. You might need to change your computer Ip address.

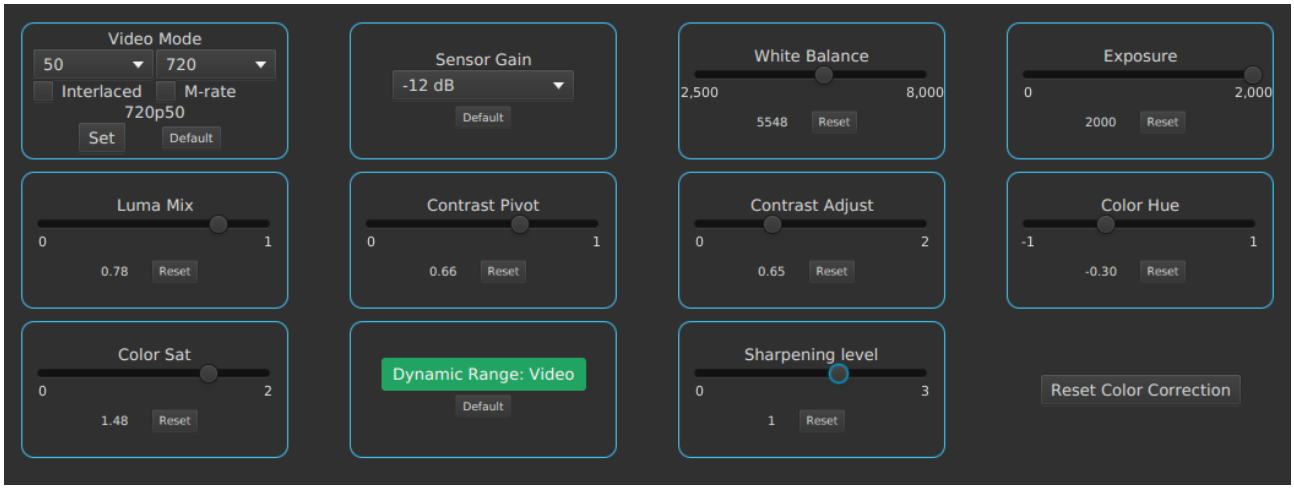
Controlling Gimbals through VISCA

First make the necessary hardware changes. Then select “VISCA” on “Gimbal Protocol”. This will make the necessary changes on the User Interface to work with VISCA. See more on “Gimbal Parameters” section.

Camera Parameters

In this section there is some notes about using certain controls. In the future we will include more controls.

Video control

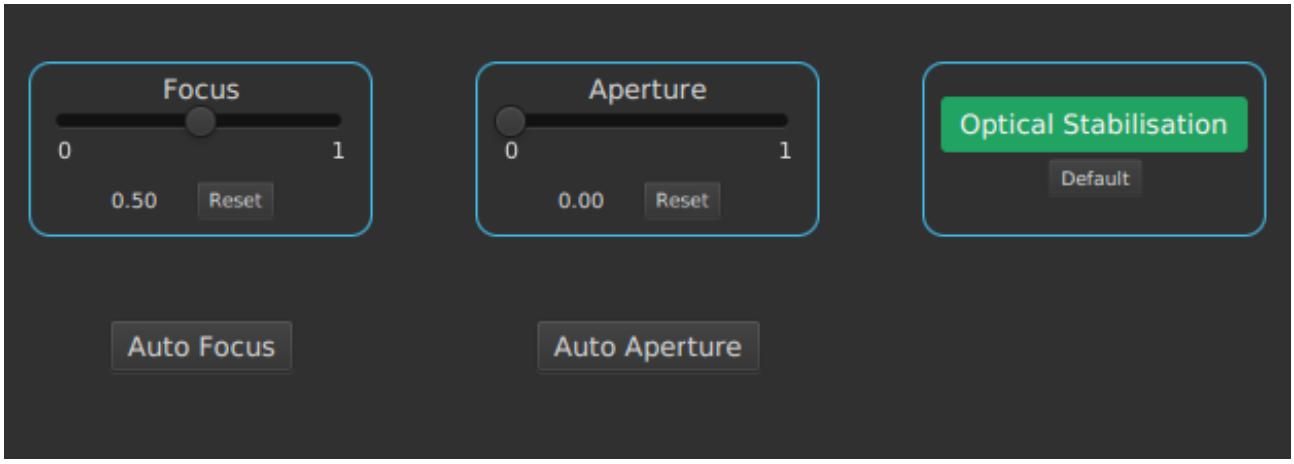


Notes:

Video Mode: you can set video resolution and frame rate when connected to the gimbal, but it cannot be part of a preset. Also the resolutions supported depends on the camera

Contrast: has 2 controls: Pivot and Adjust, they affect each other

Lenses control



Notes:

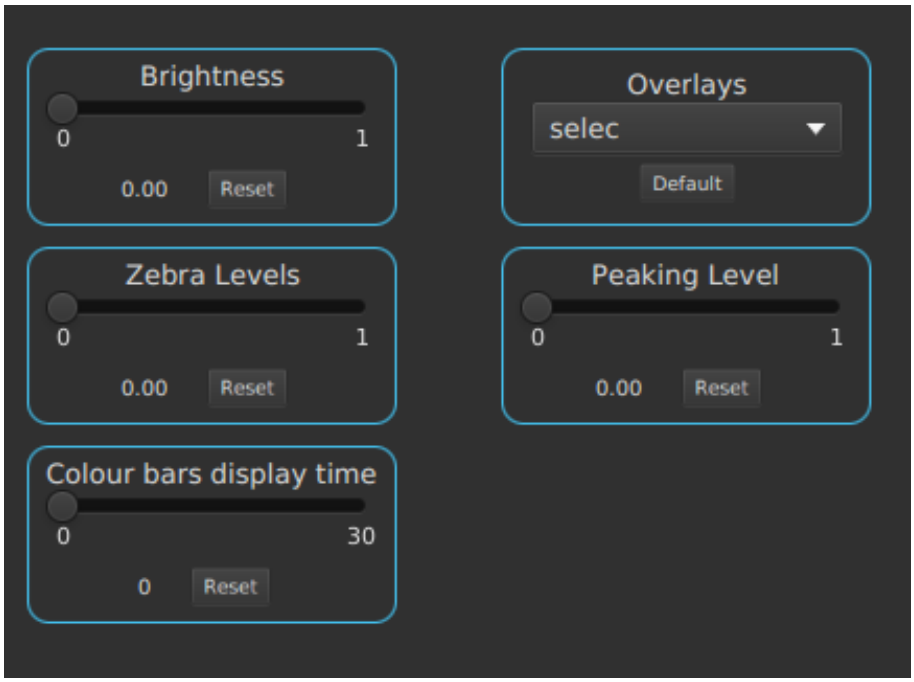
Not all lenses controllers can be used on all lenses. For example: Zoom only works on a few lenses.

Colors

Notes:

The Master slider is little different from the others. It moves the other sliders at the same rate.

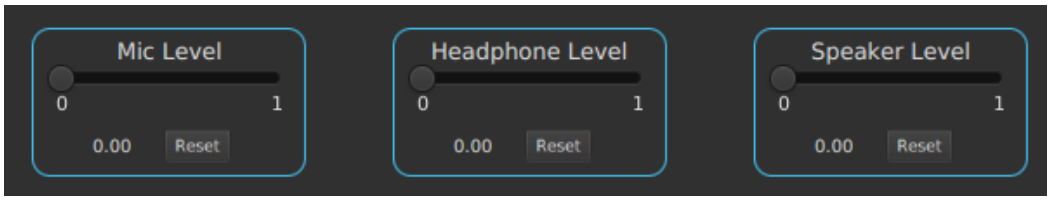
Display



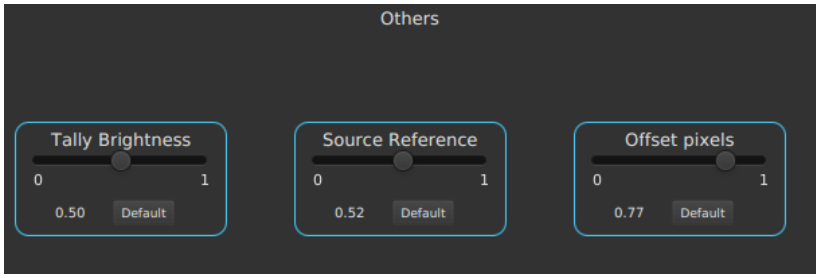
Notes:

These control the actual display but not the camera itself.

Audio



Others

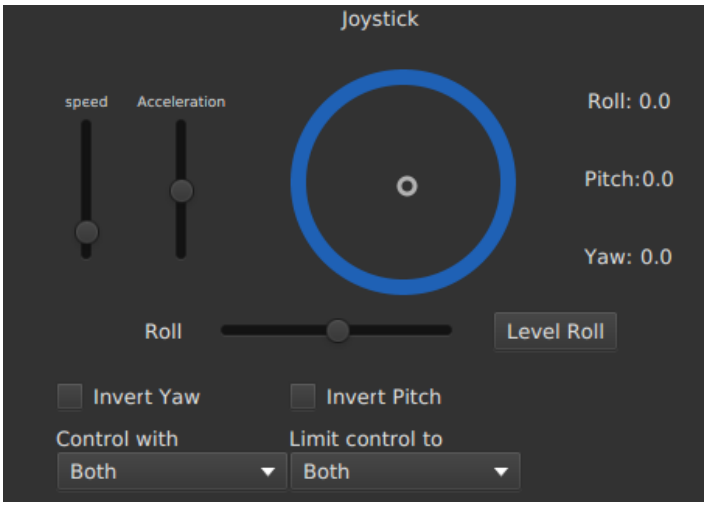


Notes:

At this point Tally Brightness is the only control working in this section

Gimbals Parameters

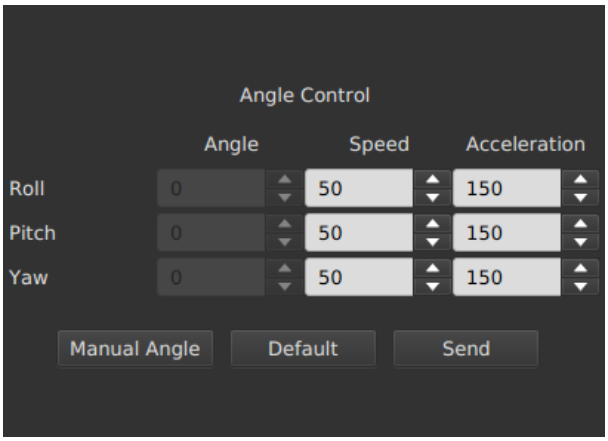
Joystick

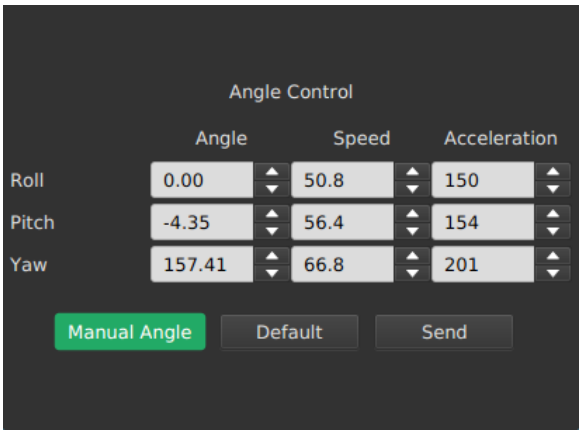


On the gimbal section we can use the joystick to freely move the gimbal on its 3 rotational axis: yaw (pan), pitch (tilt) and roll. On the joystick control also the current gimbal angle for every axis is shown on degrees (from -720 to -720 degrees).

Acceleration and Speed can be set for the joystick as well. Note: up is more, down is less.

Angle Control





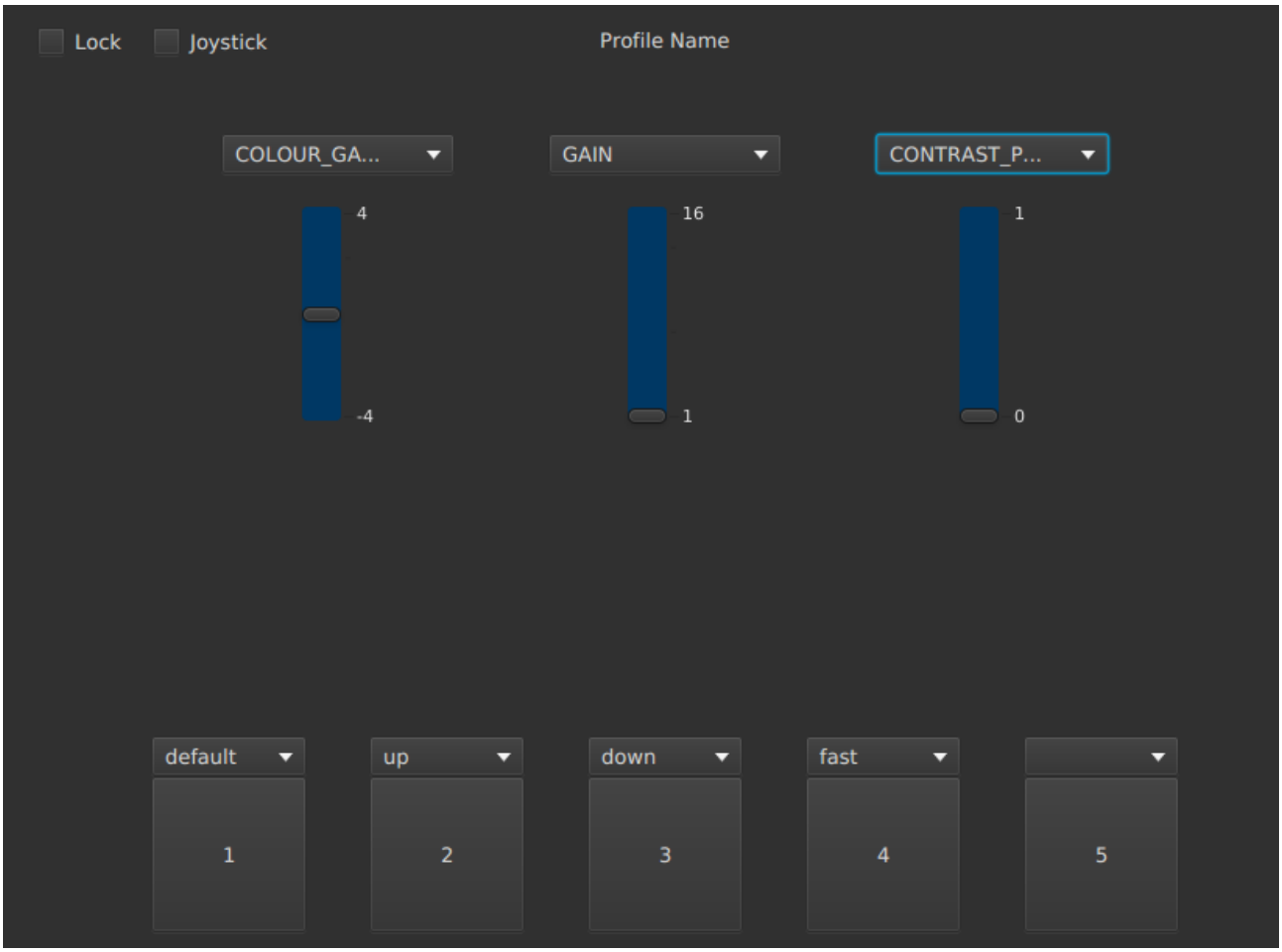
On this control we can set a target angle for every axis, its speed and acceleration towards it. Once the angles are set, it is possible to test by clicking “send” button.

The current gimbal position (angles) will be saved every time a preset is saved. Another way is to click “Manual Angles” and type the wanted angles directly; while the “Manual Angles” is active, the typed angles are save instead.

In addiction to type the values, it is possible to drag the mouse pointer up and down to modify them.

Once we are satisfied with the angle/speed/acceleration. We can save to a preset by clicking “Save” on the bottom corner of the left Pane. Then next time we send the preset the gimbal will move to the chosen angles with the chosen speed and acceleration.

Live Section



On the live tab we can choose the previously created presets to quickly selecting them by clicking the big numbered buttons or using the function keys F1, F2, F3, F4 or F5 corresponding to numbered button (on some keyboards like Apple Mac keyboards you need to use Fn key + F1, F2, F3, F4 or F5).

Also we can choose 3 individual parameters to control from camera and gimbal. For example controlling the red gain from the color section (COLOUR_GAIN_RED).

Note: Not all parameters listed can be controlled yet.