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Setup & Resources

Installation

Ubuntu

Specific version

```
sudo apt-get install python3 python3-pip
sudo apt-get python3-pyqt5 python3-pyqt5.qtsvg
git clone git@github.com:hibetterheyj/crazy-practical.git
git submodule update --init --recursive
cd crazyflie-lib-python/
pip install -e ./
cd ..

# The client requires Python3, pip and pyqt5
# or install on the virtual environment
# git clone https://github.com/bitcraze/crazyflie-clients-python.git
cd crazyflie-clients-python/
pip3 install -e .
cd ..
```

possible issue: https://stackoverflow.com/questions/63448467/installing-opency-fails-because-it-c annot-find-skbuild

additional package

```
sudo pip3 install pyqt5
```

• due to the older version of crazyflie-clients-python, the exclusive=True should be removed in src/cfclient/ui/main.py due to udpated version of pyqt

```
#self.configGroup = QActionGroup(self._menu_mappings, exclusive=True)
self.configGroup = QActionGroup(self._menu_mappings)

#self._mux_group = QActionGroup(self._menu_inputdevice, exclusive=True)
self._mux_group = QActionGroup(self._menu_inputdevice)

#dev_group = QActionGroup(role_menu, exclusive=True)
dev_group = QActionGroup(role_menu)

#map_group = QActionGroup(role_menu, exclusive=True)
map_group = QActionGroup(role_menu)
```

vispy

```
conda install -c conda-forge vispy
# VisPy is not yet compatible with matplotlib 2.2+
pip install matplotlib==2.1
```

result

cfclient ubuntu

Official instruction

• Installation Instructions

Windows

```
git clone git@github.com:hibetterheyj/crazy-practical.git
git submodule update --init --recursive
cd crazyflie-lib-python/
pip3 install -e ./
cd ..

# git clone https://github.com/bitcraze/crazyflie-clients-python.git
cd crazyflie-clients-python
pip3 install -e ./
python tools/build/prep_windows
cd ..
```

CRITICAL:cfclient.gui:No pysdl2 installation found, exiting!
 no pysdl2 installation found #259

Advanced

Update firmware in the Crazyflie

To make sure that your Crazyflie has all the latest features you should always update the firmware to the newest version. To find out how you can check out the client user-guide here.

- release
 - https://github.com/USC-ACTLab/crazyswarm/tree/master/prebuilt
 - https://github.com/bitcraze/crazyflie-release/releases

- guide using GUI: https://www.bitcraze.io/documentation/repository/crazyflie-clients-python/master/userguides/userguide-client/#firmware-upgrade
- guide using command line: https://www.bitcraze.io/documentation/repository/crazyflie-clien-ts-python/master/functional-areas/cfloader/
 - start it again by pressing the power button for at least 1.5 seconds, but not more than
 5.

 $CLOAD_CMDS = -w radio://0/80/2M/E7E7E7E7E7$

Useful links and tutorials

Videos

- Bitcraze EPFL-LIS: Crazyflie 101 presentation (part 1)
- Bitcraze EPFL-LIS: Crazyflie 101 presentation (part 2)

Documentaion

- Getting started with the Crazyflie 2.X
- Getting started with the STEM ranging bundle
 - 1 x Flow V2 deck; 1 x Multi-ranger deck
- Input-devices for the Crazyflie client
 - use PS3 or Xbox to controller the drone

Misc.

Meaning of blinking lights

- 1. https://wiki.bitcraze.io/projects:crazyflie:userguide:index#led_indications
- 2. 安全迷你四旋翼无人机研发平台: Crazyflie 2.X
 - o Crazyflie 2.X如果all good:蓝色LED灯M2和M3(下方的两个灯)会是蓝的(不是闪),并且M1 会闪烁[2次/秒]红灯
 - o Crazyflie 2.X如果all good,但是传感器还没被校准:蓝色LED灯M2和M3(下方的两个灯)会是蓝的(不是闪),并且M1闪烁[0.5次/秒]红灯,即每2秒闪烁1次.
 - o 无线电通讯Radio connected: M4闪烁红and/or绿
 - o 电池电量低: M1会是红的(不是闪)
 - o 充电中: M3会闪烁蓝灯,同时M2是蓝灯(不是闪)
 - o Bootloader Mode: M2和M3都闪烁蓝灯,约1次/秒
 - o self-test失败:如果M1灯是快速闪5次红灯,并且停顿一段时间,再次重复短闪快速闪5次红灯,再停顿一段时间,如此重复,说明self-test是失败的。注意self-test与组装之前的测试(M4会快速闪5次绿灯,则测试通过。如果M1灯快速闪5次红灯,则失败)是不一样的