PyParrot Installation Guide

Much of this list comes from the PyParrot documentation. I only left the instructions I used and made some alterations. The bluetooth instructions were found at this LifeHacker site.

Hardware/Drone requirements

- **Parrot Mambo Fly**: If you have a Mambo without the camera, you will use the BLE interface. pyparrot currently only supports Linux for BLE. The BLE interface was developed on a Raspberry Pi 3 Model B but it has been tested on other Linux machines. (The Mambo Fly is what I purchased and am using.)

Software Installations

- Python 3 (Raspberry Pi already has Python 3 pre-installed
- Use the command line to install each piece of software using the following lines of code
    - pip3 install untangle
    - pip3 install zeroconf
    - sudo apt-get install bluetooth
    - sudo apt-get install bluez
    - sudo apt-get install python-bluez
    - sudo apt-get install python-pip libglib2.0-dev
    - sudo pip3 install bluepy
    - sudo apt-get update
    - git clone https://github.com/amymcgovern/pyparrot
    - cd pyparrot
    - pip3 install pyparrot

Retrieving the Bluetooth Address

- The instructions on the PyParrot documentation site didn't work for me, so I retrieved the bluetooth address with the following instructions. Again these were typed into the command line. Make sure the drone is turned on and the green lights are flashing.
    - Bluetoothctl
    - power on
    - agent on
    - scan on
- At this point you should see the bluetooth devices start to get listed. Look for the address before the name Mambo #####.

First Program

- I wrote the first program to simply take off, hover and land.
- Then I added a little flying and turning.
- MAKE SURE YOU HAVE PLENTY OF SPACE FOR YOU DRONE TO FLY.
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```
from pyparrot.Mambo import Mambo

# Change this to the address of the mambo
mamboAddr = "D0:3A:A8:4E:E6:23"

# Set True/False for the wifi depending on if you are using the wifi or the BLE to
connect
mambo = Mambo(mamboAddr, use_wifi=False)

print("trying to connect")
success = mambo.connect(num_retries=3)
print("connected: %s" % success)

if (success):
    # get the state information
    print("sleeping")
    mambo.smart_sleep(2)
```

```
print("taking off!")
mambo.safe_takeoff(5)

print("landing")
mambo.safe_land(5)
mambo.smart_sleep(5)

print("disconnect")
mambo.disconnect()
```