SunFounder PiCar-V API (Deviations from the manual)

Before assembling PiCar, we need to install PiCar's python API on Raspberry Pi. SunFounder release a server version and client version of its Python API. The Client API code, which is intended to remote control your PiCar, runs on your PC, and it uses Python version 3. The Server API code runs on Raspberry Pi, unfortunately, it uses Python version 2, which is an outdated version. Since the self-driving programs that we write will exclusively run on Raspberry Pi, the Server API must run in Python 3 also. Fortunately, all SunFounder's API code are open source on Github, I made a fork and updated the entire repo (both server and client) to Python 3. For the time being, run the following commands instead of the software commands in the SunFounder manual. You shouldn't have to run commands on Pages 20–26 of the manual.

```
# route all calls to python (version 2) to python3,
# pip (version 2) to pip3, even in sudo mode
# note: `sudo abcd` runs `abcd` command in administrator mode
pi@raspberrypi:~ $ alias python=python3
pi@raspberrypi:~ $ alias pip=pip3
pi@raspberrypi:~ $ alias sudo='sudo '
# Download patched PiCar-V driver API, and run its set up
pi@raspberrypi:~ $ cd
pi@raspberrypi:~ $ git clone https://github.com/dctian/SunFounder_PiCar.git
Cloning into 'SunFounder_PiCar'...
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (9/9), done.
remote: Total 276 (delta 0), reused 2 (delta 0), pack-reused 267
Receiving objects: 100% (276/276), 53.33 KiB | 0 bytes/s, done.
Resolving deltas: 100% (171/171), done.
pi@raspberrypi:~ $ cd ~/SunFounder_PiCar/picar/

pi@raspberrypi:~/SunFounder_PiCar/picar $ git clone
https://github.com/dctian/SunFounder_PCA9685.git
Cloning into 'SunFounder_PCA9685'...
remote: Enumerating objects: 7, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 87 (delta 2), reused 6 (delta 2), pack-reused 80
Unpacking objects: 100% (87/87), done.
```

```
pi@raspberrypi:~/SunFounder_PiCar/picar $ cd ~/SunFounder_PiCar/
pi@raspberrypi:~/SunFounder_PiCar $ sudo python setup.py install
Adding SunFounder-PiCar 1.0.1 to easy-install.pth file
Installing picar script to /usr/local/bin
[omitted....]
# Download patched PiCar-V applications
# and install depedent software
pi@raspberrypi:~/SunFounder_PiCar/picar $ cd
pi@raspberrypi:~ $ git clone https://github.com/dctian/SunFounder_PiCar-V.git
Cloning into 'SunFounder_PiCar-V'...
remote: Enumerating objects: 969, done.
remote: Total 969 (delta 0), reused 0 (delta 0), pack-reused 969
Receiving objects: 100% (969/969), 9.46 MiB | 849.00 KiB/s, done.
Resolving deltas: 100% (432/432), done.
pi@raspberrypi:~ $ cd SunFounder_PiCar-V
pi@raspberrypi:~/SunFounder_PiCar-V $ sudo ./install_dependencies
Adding SunFounder-PiCar 1.0.1 to easy-install.pth file
Installing picar script to /usr/local/bin
Installed /usr/local/lib/python2.7/dist-packages/SunFounder_PiCar-1.0.1-py2.7.egg
Processing dependencies for SunFounder-PiCar==1.0.1
Finished processing dependencies for SunFounder-PiCar==1.0.1
complete
Copy MJPG-Streamer to an Alternate Location. complete
Enalbe I2C. complete
Installation result:
django     Success
python-smbus Success
python-opencv Success
libjpeg8-dev Success
The stuff you have change may need reboot to take effect.
Do you want to reboot immediately? (yes/no)yes
```

Answer Yes, when prompted to reboot. After reboot, all required hardware drivers should be installed. We will test them after the car assembly.