Setup Roomba's Software

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Abstract

This will show you how to setup the Roomba.

1 Software Setup

1.1 Mote

These scripts are to help setup a new Raspbian system. Once you `ssh` in, update the system:

```
sudo apt-get update
sudo apt-get -y upgrade
sudo apt-get -y install git
```

Get a copy of this software one of two ways:

```
mkdir github
cd github
git clone https://github.com/MomsFriendlyRobotCompany/mote.git # if you don't have write access to my r
git clone git@github.com:MomsFriendlyRobotCompany/mote.git     # if you are me
```

Now go into the software directory and install/setup everything:

```
sudo ./install.sh
sudo ./setup.sh <hostname> <wifi-ssid> <wifi-password>
sudo ./setup-smb.sh  # you will be asked for a SMB password, just use raspberry
./setup-git.sh <github-username>
./setup-ssh.sh
```

1.2 Roomba Software

Now use the software here to install stuff:

```
pip install -U -r roomba.txt
sudo ./setup-access-point.sh
```

1.3 OpenCV

```
git clone https://github.com/MomsFriendlyRobotCompany/raspbian_pkgs.git
cd raspbian_pkgs/opencv
sudo ./update-opencv.sh
dpkg -i libopencv3-kevin.deb
```

2 Issues

2.1 Fix python path

2.1.1 Python 2.7

```
pi@mario software $ cat /etc/python2.7/sitecustomize.py
# install the apport exception handler if available
import sys, os
my_site = os.path.join(
    os.environ['HOME'],
    '/usr/local/lib/python2.7/dist-packages'
)
sys.path.insert(0, my_site)

try:
    import apport_python_hook
except ImportError:
    pass
else:
    apport_python_hook.install()
```

2.1.2 Python3.5

```
pi@mario software $ cat /etc/python3.5/sitecustomize.py
# install the apport exception handler if available
import sys, os
my_site = os.path.join(
    os.environ['HOME'],
    '/usr/local/lib/python3/dist-packages'
)
sys.path.insert(0, my_site)

try:
    import apport_python_hook
except ImportError:
    pass
else:
    apport_python_hook.install()
```

2.2 Bypass known_hosts

Since all RPi's hostname are raspberrypi.local, it **sucks** when you try to connect to a new one and you get the man-in-the-middle attack warning.

You can disable the check with:

```
ssh -o UserKnownHostsFile=/dev/null pi@raspberrypi.local
```