PS3 Dual Shock Controller with Raspberry Pi
This project uses bluetooth to connect the Raspberry Pi to a PS3 controller

Reference Tutorial and Discussion
http://booting-rpi.blogspot.ro/2012/08/dualshock-3-and-raspberry-pi.html
http://www.raspberrypi.org/phpBB3/viewtopic.php?t=16702

Steps from Tutorial

Update the Raspberry Pi
This could take awhile depending on the last time the Pi was updated
```
sudo apt-get update
```

Install Bluetooth Support
This is one command, make sure you enter the entire command on one line
This command will take a long time to complete (15 minutes or more)
```
sudo apt-get install bluez-utils bluez-compat bluez-hcidump checkinstall
libusb-dev  libbluetooth-dev joystick
```

Check Bluetooth Dongle
This command will verify the Bluetooth dongle is working
You should see the following or the dongle is not being recognized by the system
Some cheaper Bluetooth dongles fail to work right out of the package
```
pi@raspberrypi ~ $ hciconfig
hci0: Type: BR/EDR Bus: USB
BD Address: 00:1F:81:00:06:20 ACL MTU: 1021:4 SCO MTU: 180:1
UP RUNNING PSCAN
RX bytes:1260 acl:0 sco:0 events:46 errors:0
TX bytes:452 acl:0 sco:0 commands:45 errors:0
```

Download and Compile Controller Utility
Utility reference: http://www.pabr.org/sixlinux/sixlinux.en.html
These commands will download and compile the utility in current (home) directory
Enter each command line individually
```
wget http://www.pabr.org/sixlinux/sixpair.c
gcc -o sixpair sixpair.c -lusb
```

Pair PS3 Controller with Bluetooth Dongle
You need a USB hub to plug in both the PS3 controller and Bluetooth dongle
When you have both plugged in, run the sixpair program
```
sudo ./sixpair
Current Bluetooth master: DE:AD:BE:EF:00:00
Setting master bd_addr to: 00:1F:81:00:06:20
```
Download and Compile the Six Axis Joystick Manager

Manager reference: http://qtsixa.sourceforge.net/
Manager manual: http://qtsixa.sourceforge.net/manual.pdf
The wget line includes the http web link to the file QtSixA-1.5.1-src.tar.gz
The make command will take a couple minutes

```
wget
http://sourceforge.net/projects/qtsixa/files/QtSixA%201.5.1/QtSixA-1.5.1-src.t
ar.gz
tar xfvz QtSixA-1.5.1-src.tar.gz
cd QtSixA-1.5.1/sixad
make
```

Install the Six Axis Joystick Manager
Create a directory for the joystick manager profiles
Use checkinstall to install the package
You will be asked to create documentation, you can skip that
You will be asked about the installation options, you can accept the defaults
The install process should report success when finished

```
sudo mkdir -p /var/lib/sixad/profiles
sudo checkinstall
```

Run Six Axis Daemon Manually
Enter this command to run the six axis daemon manually, press PS button
You should see a success message about pairing PS3 and Pi
Leave this running in terminal window, open new terminal window if needed

```
sudo sixad --start

sixad-bin[2535]: started
sixad-bin[2535]: sixad started, press the PS button now
sixad-bin[2535]: unable to connect to sdp session
sixad-bin[2535]: Connected Sony Computer Entertainment Wireless Controller
```

Run Six Axis Daemon at Boot
Use this command to set up the Pi to run the six axis daemon during boot up

```
sudo update-rc.d sixad defaults
reboot
```

Test the Controller
Use this command to see if the Pi is receiving data from the controller
Move the controller and press buttons, should see values change

```
sudo jstest /dev/input/js0
```