

```
if [[ "$(uname -a)" =~ ^.*aarch64.*$ ]]; then ISTX1=true else ISTX1=false fi
```

Install Grinch Kernel if Tk1

```
if ! $ISTX1 then cd ~/; git clone https://github.com/jetsonhacks/installGrinch.git cd  
installGrinch; ./installGrinch.sh fi
```

Configure time-zone

```
sudo dpkg-reconfigure tzdata
```

Ros Prerequisites

```
sudo update-locale LANG=C LANGUAGE=C LC_ALL=C LC_MESSAGES=POSIX sudo sh -c  
'echo "deb http://packages.ros.org/ros/ubuntu trusty main" > /etc/apt/sources.list.d/ros-  
latest.list' wget https://raw.githubusercontent.com/ros/rosdistro/master/ros.key -O - |  
sudo apt-key add - sudo apt-get update
```

Ros Jade Base

```
sudo apt-get -y install ros-jade-ros-base
```

Python Dependencies

```
sudo apt-get -y install python-rosdep python-dev python-pip python-rosinstall python-  
wstool
```

```
sudo rosdep init rosdep update echo "source /opt/ros/jade/setup.bash" >> ~/.bashrc  
source ~/.bashrc
```

Ros packages

```
sudo apt-get -y install ros-jade-rosserial-arduino sudo apt-get -y install ros-jade-rosserial  
sudo apt-get -y install ros-jade-eigen-conversions sudo apt-get -y install ros-jade-tf2-  
geometry-msgs sudo apt-get -y install ros-jade-angles sudo apt-get -y install ros-jade-web-  
video-server sudo apt-get -y install ros-jade-rosbridge-suite sudo apt-get -y install ros-  
jade-rospy-tutorials sudo apt-get -y install ros-jade-joy sudo apt-get -y install ros-jade-  
teleop-twist-joy sudo apt-get -y install ros-jade-roslint sudo apt-get -y install ros-jade-  
controller-manager sudo apt-get -y install ros-jade-camera-calibration-parsers sudo apt-  
get -y install ros-jade-xacro sudo apt-get -y install ros-jade-robot-state-publisher sudo apt-  
get -y install ros-jade-diff-drive-controller sudo apt-get -y install ros-jade-usb-cam sudo
```

```
apt-get -y install ros-jade-ros-control sudo apt-get -y install ros-jade-dynamic-reconfigure  
sudo apt-get -y install ros-jade-fake-localization sudo apt-get -y install ros-jade-joint-state-  
controller
```

Configure Catkin Workspace

```
source /opt/ros/jade/setup.bash cd ~/catkin_ws/src catkin_init_workspace
```

Install Ros Oencv bindings from source

```
cd ~/catkin_ws wstool init src wstool merge -t src src/rosjet/rosjet.rosinstall wstool  
update -t src
```

Install Caffe

(<https://gist.github.com/jetsonhacks/acf63b993b44e1fb9528>)

```
sudo add-apt-repository universe sudo apt-get update sudo apt-get install libprotobuf-dev  
protobuf-compiler gfortran  
libboost-dev cmake libleveldb-dev libsnpappy-dev  
libboost-thread-dev libboost-system-dev  
libatlas-base-dev libhdf5-serial-dev libgflags-dev  
libgoogle-glog-dev liblmdb-dev -y sudo usermod -a -G video $USER cd ~/ git clone  
https://github.com/BVLC/caffe.git cd caffe && git checkout dev cp Makefile.config.example  
Makefile.config make -j 4 all
```

System Optimizations

```
gsettings set org.gnome.settings-daemon.plugins.power button-power shutdown gsettings  
set org.gnome.desktop.screensaver lock-enabled false sudo apt-get -y install compizconfig-  
settings-manager gsettings set org.gnome.desktop.interface enable-animations false  
gsettings set com.canonical.Unity.Lenses remote-content-search none echo -e  
'[SeatDefaults]-user=ubuntu' > login_file; sudo mv login_file /etc/lightdm/lightdm.conf  
gsettings set org.gnome.Vino enabled true gsettings set org.gnome.Vino disable-  
background true gsettings set org.gnome.Vino prompt-enabled false gsettings set  
org.gnome.Vino require-encryption false
```

```
echo "alias sr='source ~/catkin_ws/devel/setup.bash'" >> ~/.bashrc
```

```
cd ~/catkin_ws catkin_make && source devel/setup.sh
```