Guia de instalación

1º - ROS (indigo) para ubuntu 14,04

Códigos:

Setup your sources.list

```
sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu $(lsb_release -sc)
main" > /etc/apt/sources.list.d/ros-latest.list'
```

Set up your keys

```
sudo apt-key adv --keyserver hkp://ha.pool.sks-keyservers.net:80 --recv-key
421C365BD9FF1F717815A3895523BAEEB01FA116
```

Installation

```
sudo apt-get update
```

```
sudo apt-get install ros-indigo-desktop-full
```

Initialize rosdep

```
sudo rosdep init
```

```
rosdep update
```

Environment setup

```
echo "source /opt/ros/indigo/setup.bash" >> ~/.bashrc
```

```
source ~/.bashrc
```

Getting rosinstall

```
sudo apt-get install python-rosinstall
```

Para comprobar si esta ROS instalado:

roscore

Os saldrá una pantalla similar a esta


```
roscore http://felipe:11311/
felipe@felipe:~$ roscore
... logging to /home/felipe/.ros/log/3be8dd02-2dcc-11e7-9792-a41731056db9/roslau
nch-felipe-472.log
Checking log directory for disk usage. This may take awhile.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

started roslaunch server http://felipe:34248/
ros_comm version 1.11.21


SUMMARY
========

PARAMETERS
 * /rosdistro: indigo
 * /rosversion: 1.11.21

NODES

auto-starting new master
process[master]: started with pid [487]
ROS_MASTER_URI=http://felipe:11311/

setting /run_id to 3be8dd02-2dcc-11e7-9792-a41731056db9
process[rosout-1]: started with pid [504]
started core service [/rosout]
```

2º - Automodel car

COMPILE

Códigos:

https://github.com/AutoModelCar/AutoModelCarWiki/wiki/Compile

Prerequisites

Install catkin tools for compiling:

```
sudo apt-get install python-catkin-tools
```

CONNECT TO THE ODROID

Enlace:

https://github.com/AutoModelCar/AutoModelCarWiki/wiki/Connect-to-the-Odroid

Lo único que hay que instalar es openssh-server

```
sudo apt-get install openssh-server
```

CROSS COMPILE

Enlace

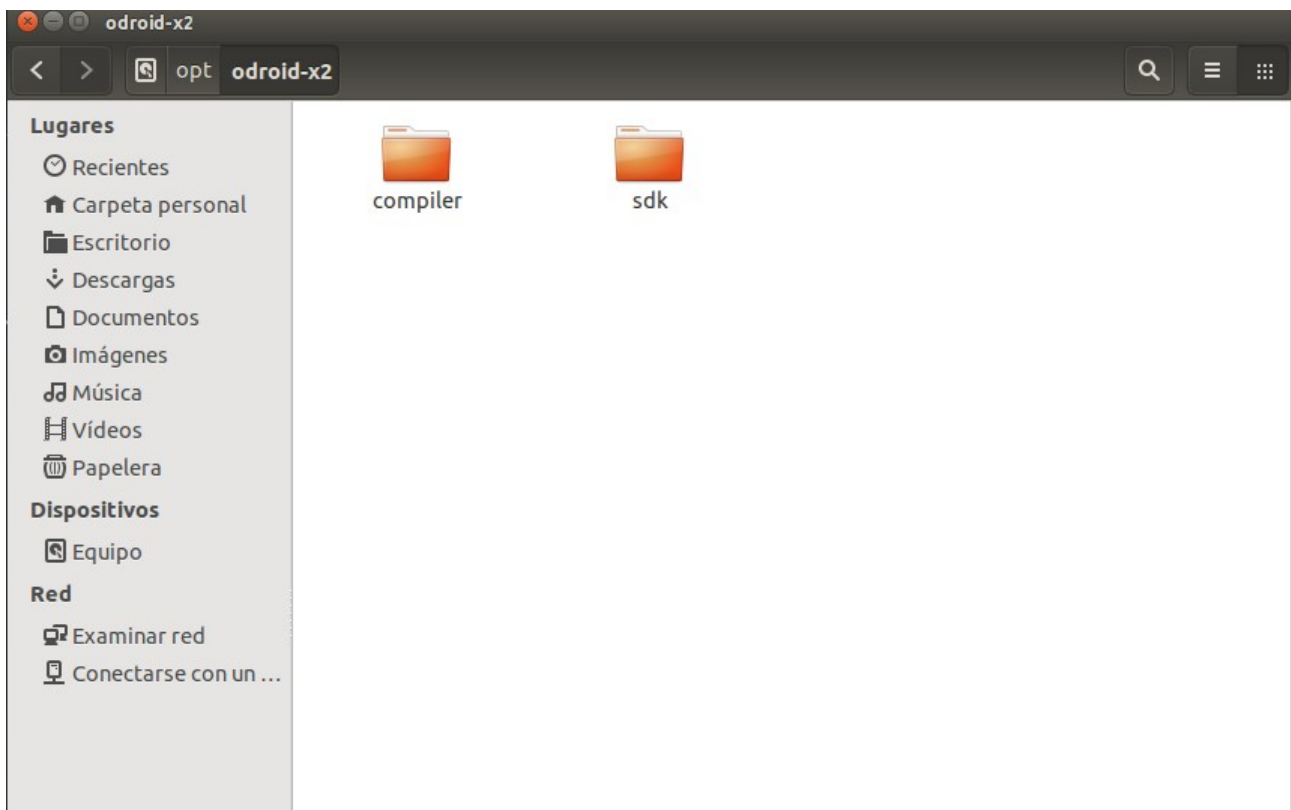https://github.com/AutoModelCar/AutoModelCarWiki/wiki/Cross-compile

Descargar SDK y compiler

crear una carpeta en /opt con el nombre de "odroid-x2" para ello en la terminal abrir nautilus con permisos de root

sudo nautilus

ir a la ruta y crear la carpeta y pegar SDK y compiler

Dependencies

sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu `lsb_release -sc` main" > /etc/apt/sources.list.d/ros-latest.list'

wget http://packages.ros.org/ros.key -O - | sudo apt-key add -

sudo apt-get update

sudo apt-get install python-catkin-tools

sudo apt-get install ros-indigo-camera-info-manager

sudo apt-get install ros-indigo-pcl-ros

```
sudo apt-get install libc6-armel-cross libc6-dev-armel-cross

sudo apt-get install binutils-arm-linux-gnueabi

sudo apt-get install libncurses5-dev

sudo apt-get install gcc-arm-linux-gnueabihf

sudo apt-get install g++-arm-linux-gnueabihf

sudo apt-get install lib32stdc++6

sudo apt-get install lib32z1


sudo apt-get update
```

catkin_ws_user

```
git clone https://github.com/AutoModelCar/catkin_ws_user.git
```

```
cd catkin_ws_user
catkin config --profile odroid -b odroid-build -d odroid-devel -i odroid-install
catkin config --profile odroid --cmake-args
-DCMAKE_TOOLCHAIN_FILE=`pwd`/src/Toolchain-arm-linux-gnueabihf.cmake
catkin config --profile odroid --extend /opt/odroid-x2/sdk/opt/ros/indigo/
catkin config --merge-devel --profile odroid
catkin config --profile odroid --install
```

```
catkin build --profile odroid
```

```
catkin clean -b --profile odroid
```

pulsar y

Si te da el error:

/opt/odroid-x2/sdk/opt/ros/indigo/include/ros/time.h:58:50: fatal error:
boost/math/special_functions/round.hpp: No such file or directory
  #include <boost/math/special_functions/round.hpp>


```
touch src/Toolchain-arm-linux-gnueabihf.cmake
```

y volver a ejecutar el comando

```
catkin build --profile odroid
```