Workbook 3# Arduino and Hardware section

1. Open this page in laptop not mobile <http://wiki.ros.org/rosserial_arduino/Tutorials>
2. Check ros version with rosversion -d
3. Install ROS Serial using the correct version as below

sudo apt-get install ros-indigo-rosserial-arduino

sudo apt-get install ros-indigo-rosserial

1. If this does not work install from Source with

cd <ws>/src

git clone https://github.com/ros-drivers/rosserial.git

cd <ws>

catkin\_make

### Install ros\_lib into the Arduino Environment

cd <sketchbook>/libraries

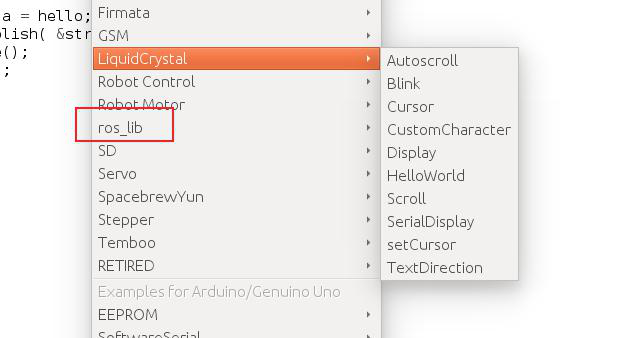
rm -rf ros\_lib

rosrun rosserial\_arduino make\_libraries.py .

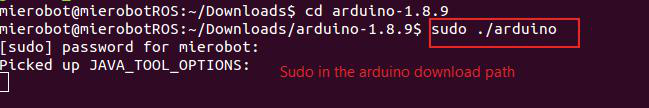
Do not miss the . in the last command up

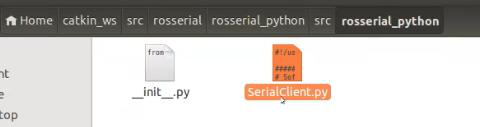
Test if ros\_lib is installed by –

Arduino – File – Examples – ros\_lib (You should see a ros\_lib in examples)

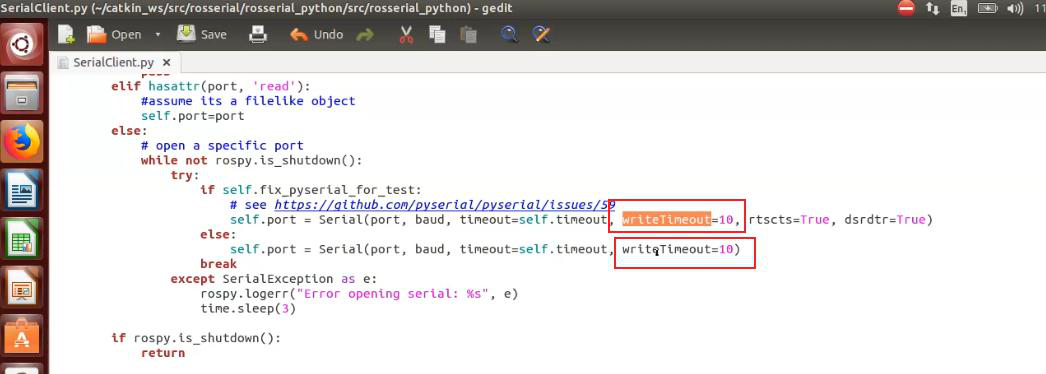


**Arduino with Chatter Talker**

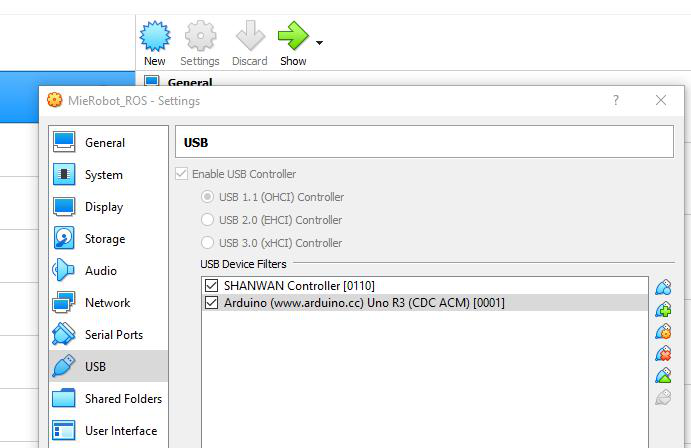
1. Open Arduino through command line else you will not be able to deploy code to MCU
2. 
3. Open Arduino – ros serial – Hello World
4. Change port authorization with chmod q+rw /dev/ttyACM0
5. Update with sudo usermod -a -G dialout $mierobot
6. Open this python file with right click gedit as



1. Update python file as SerialClient.py (call me if you are not clear)



1. Select port and board as Uno and deploy. Make sure your USB detects Arduino as



1. Run using as below

roscore

rosrun rosserial\_python serial\_node.py \_port:=/dev/ttyUSB0

rosrun rosserial\_arduino serial\_node.py \_port:=/dev/ttyUSB0

rostopic echo chatter