

Using ROS Serial with Chipkit

For this tutorial is assumed that you have ROS Indigo Igloo and catkin installed and working, as described on pages “Ubuntu install of ROS Indigo” (<http://wiki.ros.org/indigo/Installation/Ubuntu>) and “catkin” (<http://wiki.ros.org/catkin>).

Install MPIDE for Linux as described on <http://chipkit.net/started/install-chipkit-software/install-mpide-linux/> . This tutorial uses the mpide0023-linux64-20140821.

Setup the ROS Serial as described for the Arduino Platform

(http://wiki.ros.org/rosterial_arduino/Tutorials/Arduino%20IDE%20Setup)

The sketchbook directory used is “~/home/<username>/sketchbook/”. Make sure you create a libraries directory in it.

On the MPIDE app you can check for the correct installation. Under the menu 'File->Examples' you should have 'ros_lib' with many examples. The 'Hello World' is a quite good example, just download it to your Chipkit board.

Now you can quickly test it working.

First launch ros on a terminal:

```
roscore&
```

On a terminal type (check for the correct port)

```
roslaunch roserial_python serial_node.py /dev/ttyUSB1
```

Open another terminal and there should be a '/chatter' topic:

```
rostopic list
```

To listen the messages sent by the chipkit type

```
rostopic echo /chatter
```

