An extract of the code of the node sending bytes to the board:

```python
# node creation
robair_node = RobairNode('/dev/ttyUSB0')
# launch of the node
robair_node.main_loop()
...
main_loop(self):
    while not rospy.is_shutdown():
        self.move()
        time.sleep(1)
...
def move(self):
    direction = self.current_cmd.move
    self.send_order(direction)
...
# send order to the board
def send_order(self, order):
    # change the mode
    self.set_mode(2)
    # synch byte
    self.ser.write("\x00")
    # motor 1
    self.ser.write("\x31")
    # medium speed
    self.ser.write("\x64")
```

http://air.imag.fr

Please visit our wiki:

http://air.imag.fr/mediawiki/index.php/Robot_Operating_System
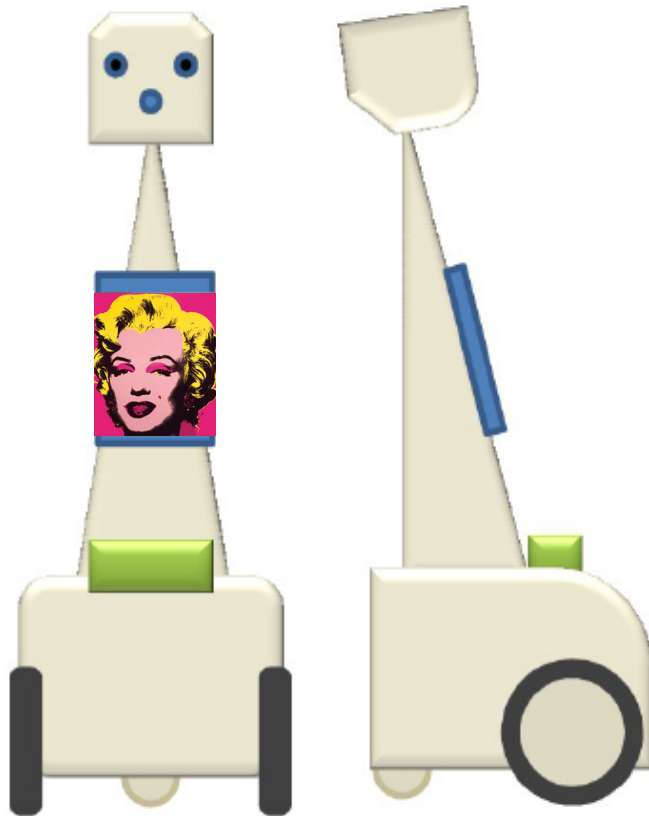
POLYTECH

RobAIR 2013
robot control

Nicolas Afonso
Simon Planès

RobAIR project:

RICM and 3I departments from Polytech'Grenoble, ENSIMAG and Pôle Design de Villefontaine

A telepresence robot for museum tours:

an open source platform and a tablet

Our sub-project:

Manage the robot control

How to send orders to the robot?

How to steer it?

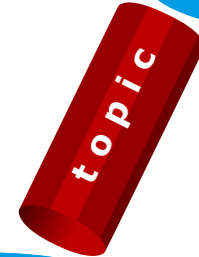::: ROS.org

Robot Operating System (libraries and tools)

A **node** = a process
A robot = many nodes (motors, sensors...)

Nodes communicate over **topics** (subscriber/publisher model) by sending messages

ubuntu

node listening the keyboard

topic

node sending bytes

0x31 0x64

bytes are sent to the Devantech board