Robot Operating System

Lab 2: the "mirror arm" node

1   Goals

Program a node that can move the left arm of the Baxter robot in a symmetric way with respect to the motion of the right arm (symmetry with respect to the sagittal plane of the robot). The node should work in position mode.

The simulation should be started in a ROS 1 console with:

```
1   rosrun baxter_simple_sim simulation.launch lab:=mirror
```

2   ROS concepts

To create the control loop you must get the current *state* of the right arm and send *commands* to the left arm. You thus need to subcribe and publish to some topics. To not hesitate to use RViz to compare the frames, some of the joints need to get the negative value of the other arm.

3   Tasks

- Identify the topics that the node should subscribe and publish to: names, message type

- Check the online documentation "ROS 2 C++ topics" to get the overall syntax. This work requires at least a publisher, a subscriber and a timer

- Program the node in C++ (and then in Python3 if you feel like it)

The package is already created for this lab (lab2_mirror), you just have to update the C++ file and compile it.
Feel free to keep this package as a template for future packages / nodes that you will create.

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