1-2 Robot – Status report 2

Kevin GAITAN FIGUEROA
Ernesto RINCON MARQUEZ

Progress

Software/electronics

- Installed ROS2 on personal machines and began looking at the documentation
- Moved only necessary dynamixel libraries to ROS 2 workspace
  - We found out that there is a library developed for ROS2, so it won't be necessary to write a wrapper from scratch
- Began working on core low-level communication node directly on ROS2
- Translated kinematic model to a "sim" node, with will receive command input vectors from the controller
  - This was based on the previous team's node, but adapted with the corrected equations and publishing command speeds
- Created preliminary launch file which includes rviz, simulation and rqt for sending commands and visualizing the robot's motion
- Adapted the robot's URDF file to more accurately reflect the actual robot's dimensions

Next steps

- Continue working on low-level command node

  This node will publish the current motor state while subscribing to motor commands and sending them to the OpenCR.
- Adapt GUI to be able to launch different configurations (simulation/real world, manual mode, etc.)
- Create skeleton controller node for testing the whole system
- Testing full integration