



Enhancing Robotic Learning with Locosim, ROS, Docker, and Jupyter

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Abstract In this work, we explore the utilization of Locosim, Robot Operating System (ROS), Docker, and Jupyter Lab as tools to facilitate robotics learning. Locosim provides a ready-to-use framework for learning and experimentation, while ROS improves the experience with a various range of open-source tools, visualization, and simulation. On the other hand, Docker ensures a consistent and reproducible environment, facilitating installation and compatibility. Finally, Jupyter Lab enhances the learning process with interactive notebooks useful for documentation, data visualization, and real-time code analysis. As an application, we present a Locosim laboratory exercise in a Jupyter Notebook format running within a Docker container. The result is a user-friendly and accessible notebook, which incorporates documentation for hands-on exercises and robot model visualization, offering an interactive approach to robotics learning.

Keywords: Robotic Learning, Locosim, ROS, Jupyter, Docker