

SUMMARY

JdeRobot-Academy is a ROS-based framework for learning robotics in a practical way. It is oriented to engineering students, open source and multiplatform. It consists of a collection of exercises similar to new robotics applications (autonomous cars, vacuum cleaners, logistics, drones...). For each exercise it provides a ROS node which hosts the student's code, hides the communication with robot drivers and shows a Graphical User Interface. The students have a simple HAL-API to get sensor readings and set actuator commands. They also have a GUI-API to interact with GUI, which helps in debugging. The robot logic is programmed in Python. It works with simulated robots in Gazebo and with real robots and sensors too.