Moving the Robot

Estimated time to completion: **1 minute**

5.2 Overview of Possible Approaches

There are mainly two ways of moving joints and reading joint states back from a simulated robot model:

- Using native Gazebo plugins from the **gazebo_plugins** package, for instance:
  - **Joint pose trajectory plugin**
  - **Joint State Publisher plugin**
  - **Differential drive plugin**
  - **Skid steering drive plugin**
  - **Tricycle drive plugin**
  - **Planar move plugin**
- Alternatively, you can embrace the **ros2_control framework**, which provides its own Gazebo plugin.

These plugins are loaded when the URDF robot model is loaded, and then you can easily send commands to move the robot joints and receive the joint states from the sim
how to use the **Joint State Publisher**, **differential drive**, and **Gazebo ROS2 Control** plugins.

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