Moving the Robot

Estimated time to completion: **3 minutes**

5.3 Joint State Publisher Plugin

This plugin does not move the robot joints but allows you to get the current joint angles from Gazebo. Broadcasting the joint states for the robot model's movable joints is important to know the location of the links and visualize a simulated robot model in RVIZ.

To use it, add the following piece of code with the joint values you want to be published:

- joint_left_wheel
- joint_right_wheel
- front_yaw_joint
- back_yaw_joint
- front_roll_joint
- back_roll_joint
- front_pitch_joint
- back_pitch_joint

In [ ]:

```
<gazebo>
    <plugin name="box_bot_joint_state" filename="libgazebo_ros_joint_state_publisher.so">
    <ros>
        <remapping>~/out:=joint_states</remapping>
    </ros>
    <update_rate>30</update_rate>
    <joint_name>joint_left_wheel</joint_name>
    <joint_name>joint_right_wheel</joint_name>

    <joint_name>front_yaw_joint</joint_name>
    <joint_name>back_yaw_joint</joint_name>
    <joint_name>front_roll_joint</joint_name>
    <joint_name>back_roll_joint</joint_name>
    <joint_name>front_pitch_joint</joint_name>
    <joint_name>back_pitch_joint</joint_name>

    </plugin>
</gazebo>
```

You set:

- The remapping of the joint state topic. In this case, you leave it in **/joint_states**.
- Set the publish rate, in this case, 30.0 Hz.
- In your case, a list of joint names is all the wheel joints, even those that will not be controlled, like the related caster wheels.

Note: As an alternative to using the Joint State Publisher Plugin, you can launch a **Joint State Publisher node** that provides equivalent functionality.

16/11/2023