

gazebo_10_10_2022

ddrobot.gazebo Pages 70-71

harman@harman-VirtualBox:~/catkin_ws/src/ros_robotics/urdf\$ **gz sdf -p \$(rospack find ros_robotics)/urdf/dd_robot.gazebo**

```
<sdf version='1.7'>
  <model name='dd_robot'>
    <link name='base_link'>
      <inertial>
        <pose>0 0 0 0 -0 0</pose>
        <mass>5</mass>
        <inertia>
          <ixx>0.13</ixx>
          <ixy>0</ixy>
          <ixz>0</ixz>
          <iyy>0.21</iyy>
          <iyz>0</iyz>
          <izz>0.13</izz>
        </inertia>
      </inertial>
      <collision name='base_link_collision'>
        <pose>0 0 0 0 -0 0</pose>
        <geometry>
          <box>
            <size>0.5 0.5 0.25</size>
          </box>
        </geometry>
        <surface>
          <contact>
            <ode/>
          </contact>
          <friction>
            <ode/>
          </friction>
        </surface>
      </collision>
      <collision name='base_link_collision_1'>
        <pose>0.2 0 -0.125 0 -0 0</pose>
        <geometry>
          <sphere>
            <radius>0.05</radius>
          </sphere>
        </geometry>
        <surface>
          <contact>
```

```

    <ode/>
  </contact>
  <friction>
    <ode/>
  </friction>
</surface>
</collision>
<visual name='base_link_visual'>
  <pose>0 0 0 0 -0 0</pose>
  <geometry>
    <box>
      <size>0.5 0.5 0.25</size>
    </box>
  </geometry>
  <material>
    <script>
      <name>Gazebo/Blue</name>
      <uri>file://media/materials/scripts/gazebo.material</uri>
    </script>
  </material>
</visual>
<visual name='base_link_fixed_joint_lump__caster_visual_1'>
  <pose>0.2 0 -0.125 0 -0 0</pose>
  <geometry>
    <sphere>
      <radius>0.05</radius>
    </sphere>
  </geometry>
</visual>
<pose>0 0 3 0 -0 0</pose>
</link>
<joint name='joint_left_wheel' type='revolute'>
  <pose relative_to='base_link'>0 0.3 0.025 0 -0 0</pose>
  <parent>base_link</parent>
  <child>left_wheel</child>
  <axis>
    <xyz>0 1 0</xyz>
    <limit>
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      <spring_stiffness>0</spring_stiffness>
    </dynamics>
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</joint>
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  <pose relative_to='joint_left_wheel'>0 0 0 0 -0 0</pose>

```

```

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  <pose>0 0 0 0 -0 0</pose>
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    <ixy>0</ixy>
    <ixz>0</ixz>
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    <izz>0.005</izz>
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  <parent>base_link</parent>
  <child>right_wheel</child>

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<axis>
  <xyz>0 1 0</xyz>
  <limit>
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    <upper>1e+16</upper>
  </limit>
  <dynamics>
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<link name='right_wheel'>
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    </cylinder>
  </geometry>
</material>
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  <pose relative_to='joint_left_wheel'>0 0 0 0 -0 0</pose>
  <inertial>
    <pose>0 0 0 0 -0 0</pose>
    <mass>0.5</mass>
    <inertia>

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```

    <ixx>0.01</ixx>
    <ixy>0</ixy>
    <ixz>0</ixz>
    <iyy>0.005</iyy>
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  <limit>
    <lower>-1e+16</lower>

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  </script>
</material>
</visual>
</link>
</model>
</sdf>
harman@harman-VirtualBox:~/catkin_ws/src/ros_robotics/urdf$
```

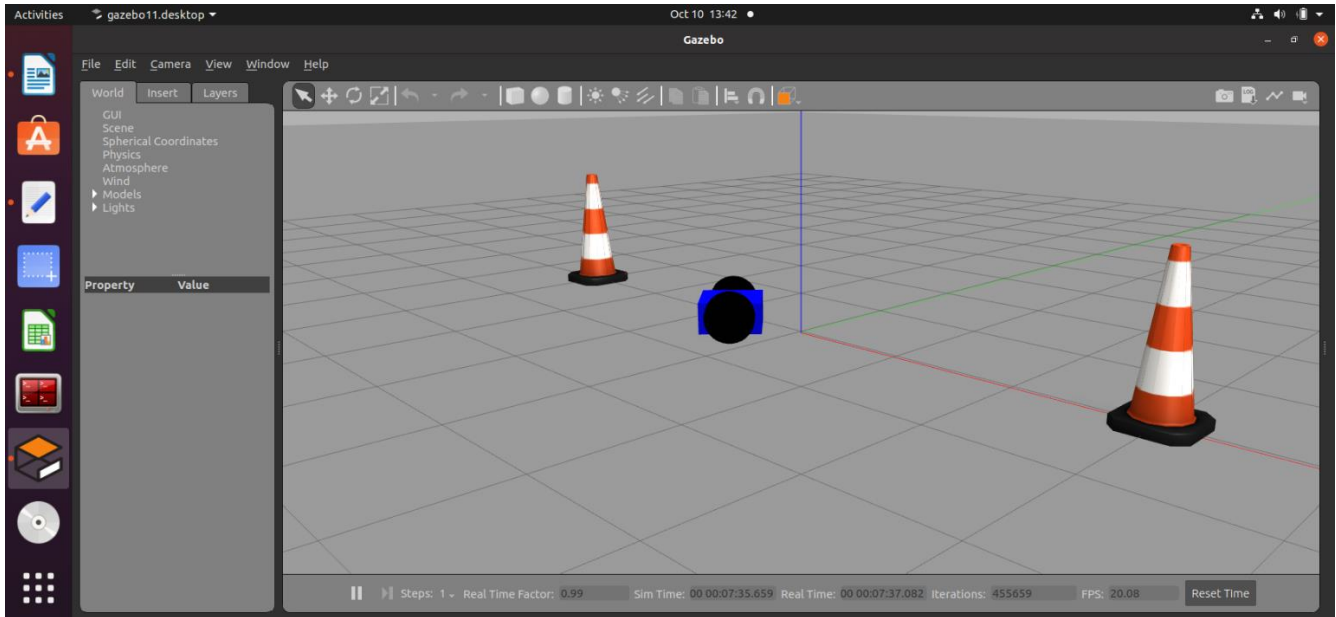
Launch dd_robot.gazebo.launch Page 72

Alias foxy or noetic

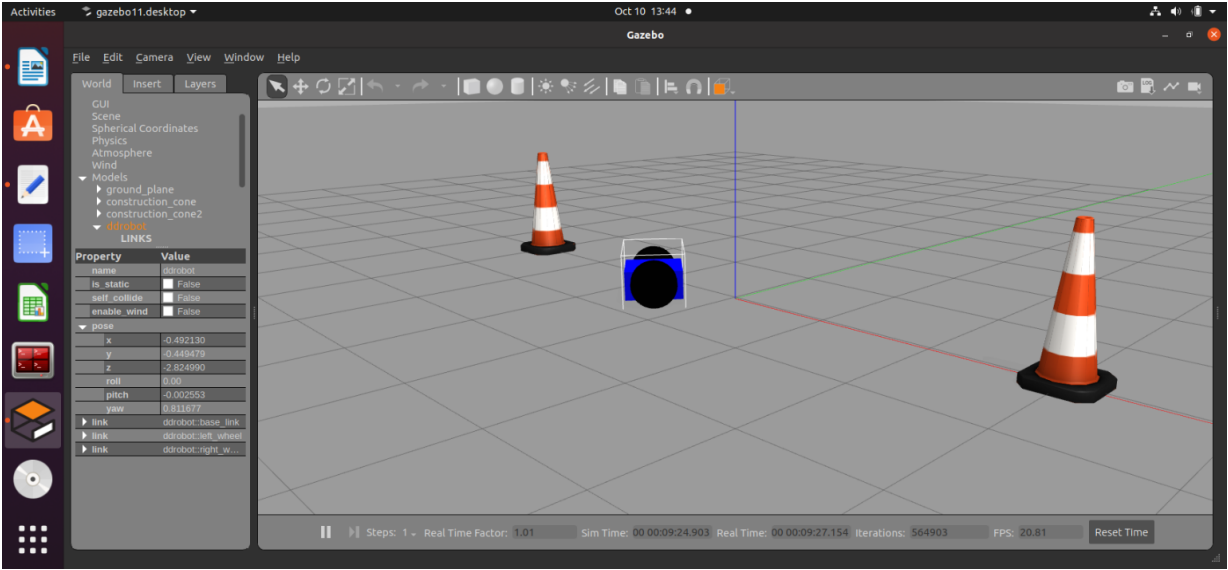
```
harman@harman-VirtualBox:~$ noetic
```

```
harman@harman-VirtualBox:~$ source ~/catkin_ws/devel/setup.bash
```

```
harman@harman-VirtualBox:~$ roslaunch ros_robotics ddrobot_gazebo.launch
```



Note that robot is a bit off center ?



World Insert Layers

GUI
Scene
Spherical Coordinates
Physics
Atmosphere
Wind
▼ Models
▶ ground_plane
▶ construction_cone
▶ construction_cone2
▼ ddrobot
LINKS

Property	Value
name	ddrobot
is_static	☐ False
self_collide	☐ False
enable_wind	☐ False
▼ pose	
x	-0.492130
y	-0.449479
z	-2.824990
roll	0.00
pitch	-0.002553
yaw	0.811677
▶ link	ddrobot::base_link
▶ link	ddrobot::left_wheel
▶ link	ddrobot::right_w...

Tweek the values – Set x,y, yaw = 0.0

