```
1 <?xml version="1.0"?>
 2 < robot >
 3
 4
    <qazebo>
 5
      <pl><plugin name="skid steer drive controller"</pl>
 6
   filename="libgazebo ros skid steer drive.so">
 7
        <updateRate>10.0
 8
        <robotNamespace>/</robotNamespace>
 9
        <leftFrontJoint>left wheel hinge front</leftFrontJoint>
10
        <rightFrontJoint>right wheel hinge front/rightFrontJoint>
        <leftRearJoint>left wheel hinge back</leftRearJoint>
11
12
        <rightRearJoint>right wheel hinge back</rightRearJoint>
        <wheelSeparation>0.4</wheelSeparation>
13
         <wheelDiameter>0.2</wheelDiameter>
14
15
         <robotBaseFrame>robot footprint/robotBaseFrame>
16
        <torque>10</torque>
17
18
        <topicName>cmd vel</topicName>
19
         <odometrvTopic>odom</odometrvTopic>
20
        <odometryFrame>odom
21
22
        <commandTopic>cmd vel</commandTopic>
23
         <topic_name_twist>cmd vel</topic_name_twist>
24
        <topic_name_odometry>odom</topic_name_odometry>
25
        <topic name joint>joint</topic name joint>
26
27
        <broadcastTF>true/broadcastTF>
28
29
        <covariance_x>0.0001</covariance_x>
30
        <covariance y>0.0001/covariance y>
31
        <covariance yaw>0.01</covariance yaw>
32
33
      </plugin>
34
35
    </gazebo>
36
37
    <!-- camera -->
38
    <qazebo reference="camera">
39
      <sensor type="camera" name="camera1">
40
         <update rate>30.0</update rate>
41
         <camera name="head">
42
          <horizontal fov>1.3962634/horizontal fov>
43
          <image>
44
             <width>800</width>
45
             <height>800</height>
46
             <format>R8G8B8</format>
47
          </image>
48
          <clip>
49
             <near>0.02</near>
             <far>300</far>
50
51
          </clip>
52
        </camera>
         <pl><plugin name="camera_controller" filename="libgazebo ros camera.so"></pl>
53
54
          <always0n>true</always0n>
55
          <updateRate>0.0
          <cameraName>camera</cameraName>
56
          <imageTopicName>rgb/image raw</imageTopicName>
57
          <cameraInfoTopicName>rgb/camera info</cameraInfoTopicName>
58
59
          <frameName>camera
          <hackBaseline>0.07</hackBaseline>
60
```

localhost:33565

```
<distortionK1>0.0</distortionK1>
 61
 62
            <distortionK2>0.0</distortionK2>
            <distortionK3>0.0</distortionK3>
 63
            <distortionT1>0.0</distortionT1>
 64
 65
            <distortionT2>0.0</distortionT2>
 66
          </pluain>
 67
        </sensor>
 68
     </gazebo>
 69
 70
     <!-- hokuvo -->
 71
     <gazebo reference="hokuyo">
        <sensor type="ray" name="head hokuyo sensor">
 72
 73
          <pose>0 0 0 0 0 0</pose>
 74
          <visualize>false
 75
          <update rate>40</update rate>
 76
          <rav>
 77
            <scan>
 78
              <horizontal>
 79
                <samples>720</samples>
 80
                <resolution>1</resolution>
 81
                <min_angle>-1.570796</min_angle>
 82
                <max angle>1.570796</max angle>
 83
              </horizontal>
 84
            </scan>
 85
            <range>
              <min>0.10</min>
 86
 87
              <max>30.0</max>
 88
              <resolution>0.01</resolution>
 89
            </range>
 90
            <noise>
 91
              <type>gaussian</type>
 92
              <!-- Noise parameters based on published spec for Hokuyo laser
 93
                   achieving "+-30mm" accuracy at range < 10m. A mean of 0.0m and
 94
                   stddev of 0.01m will put 99.7% of samples within 0.03m of the true
 95
                   reading. -->
 96
              <mean>0.0</mean>
              <stddev>0.01</stddev>
 97
 98
            </noise>
 99
          </ray>
          <pl><plugin name="gazebo ros head hokuyo controller"</pre>
100
    filename="libgazebo ros laser.so">
            <topicName>/scan</topicName>
101
102
            <frameName>hokuyo</frameName>
103
          </plugin>
104
        </sensor>
105
     </gazebo>
106
107
108 </robot>
```

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