Running Gazebo

Install gazebo:

sudo apt-get install ros-%kinetic%-simulator-gazebo

Setup:

source ~/catkin ws/devel/setup.bash

This launches gazebo:

roslaunch gazebo ros empty world.launch

Spawn urdf with the following where "object.urdf" is the name of your urdf and "1" is the height at which the model is spawned (m).

rosrun gazebo spawn_model -file `pwd`/object.urdf -urdf -z 1 -model my_object

urdf in RViz

This assumes that you have an existing urdf file complete with launch packages etc, else see here to create a model from scratch:

http://wiki.ros.org/urdf/Tutorials/Building%20a%20Visual%20Robot%20Model%20with%20URDF%20from%20Scratch

Or here for a SolidWorks exporter: http://wiki.ros.org/sw urdf exporter

To open the file in RViz, enter the following where "simpleModel" is the package name and "simpleModel.urdf' is the name of the file:

 $\label{lem:continuous} ros launch \ simple Model \ urdf.visualize.launch \ model := '\$ (find \ simple Model) / urdf/simple Model.urdf'$