1. 将上讲作业创建的机器人URDF模型，改写成xacro文件，创建仿真环境，将机器人模型加载到Gazebo仿真环境中，完成运动控制的仿真；

2. 在机器人模型上添加摄像头和激光雷达，将机器人模型加载到Gazebo中，完成传感器的仿真，并在rviz中显示传感器数据。

Assignment 1:
To build the **robot.urdf** model to **robot_base.xacro & robot_gazebo.xacro**

1. build a two wheels mobile-robot with a box, front&back caster, left&right_wheel, a gripper extension and into **robot_base.xacro**
2. combine **1.** with camera, laser, kinect into **robot_gazebo.xacro**
3. writing a **robot_gazebo.launch** file
4. Ctrl + Alt + T open a terminal
5. roslaunch mbot_gazebo **robot_gazebo.launch**
6. Ctrl + Alt + T open a terminal
7. rosrun rviz rviz
8. Fixed Frame - odom
9. add RobotModel
10. add image /camera/image_raw
11. add PointCloud2 /kinect/depth/points
12. add LaserScan /scan