Robotik WS 17/18 - UB1

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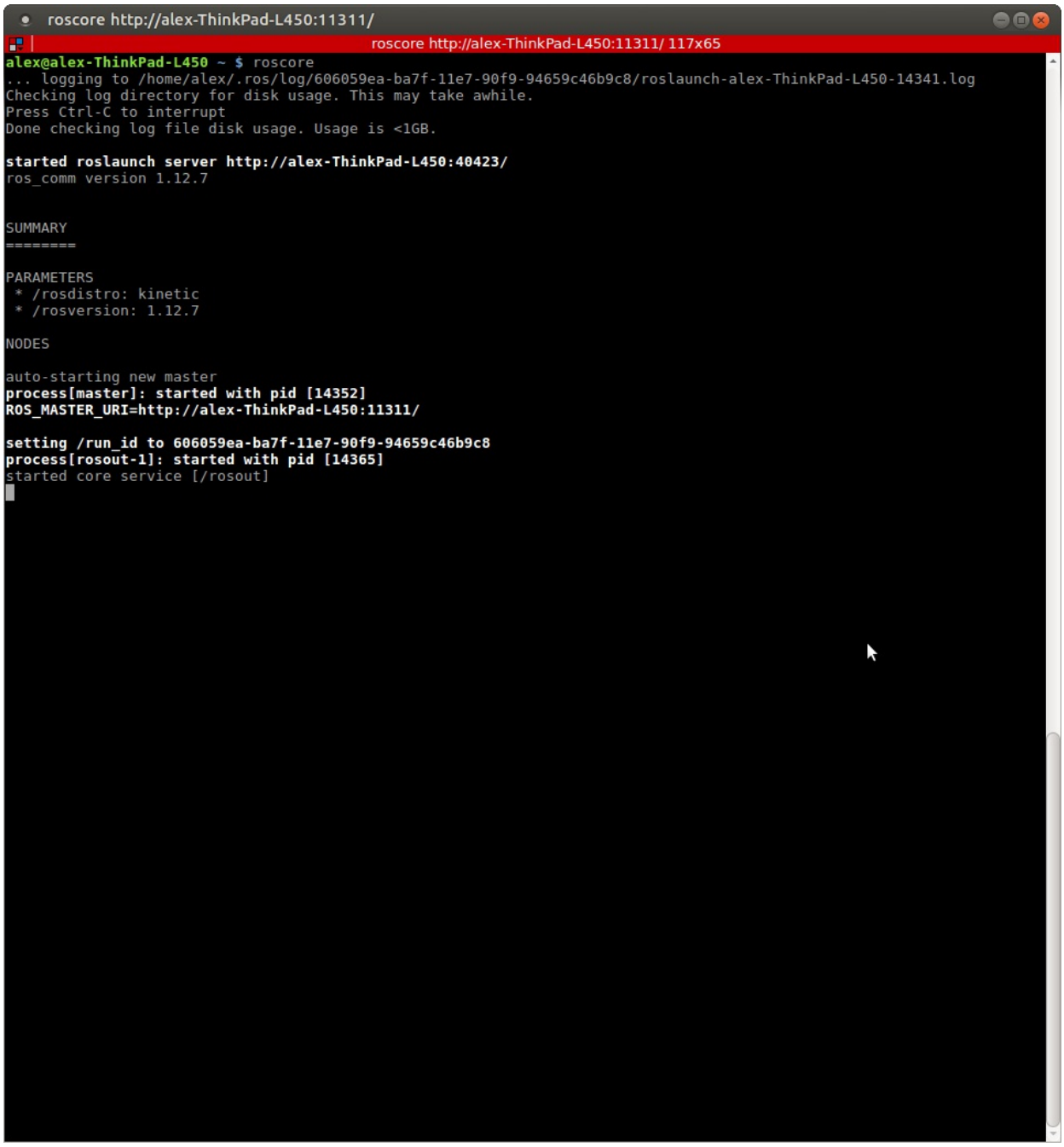
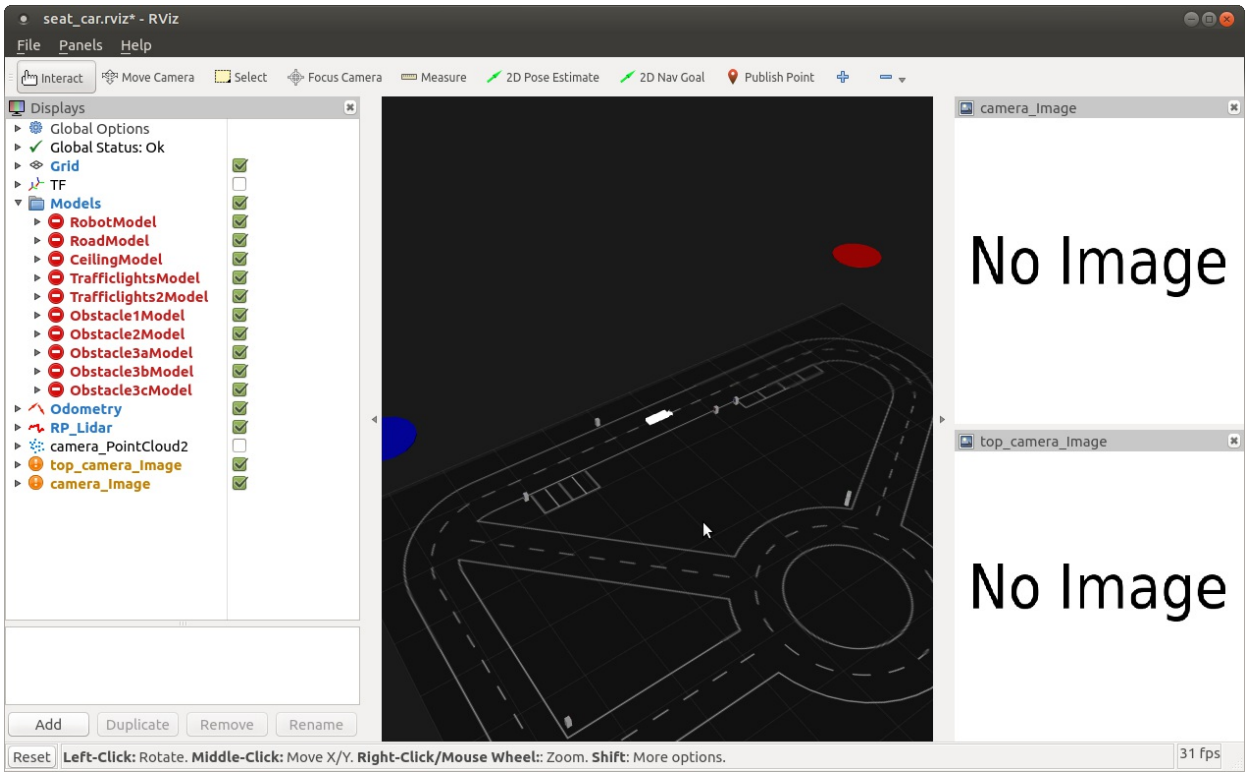
Habe bisher leider noch keinen Übungspartner gefunden.

1. ROS Installation

`roscore`

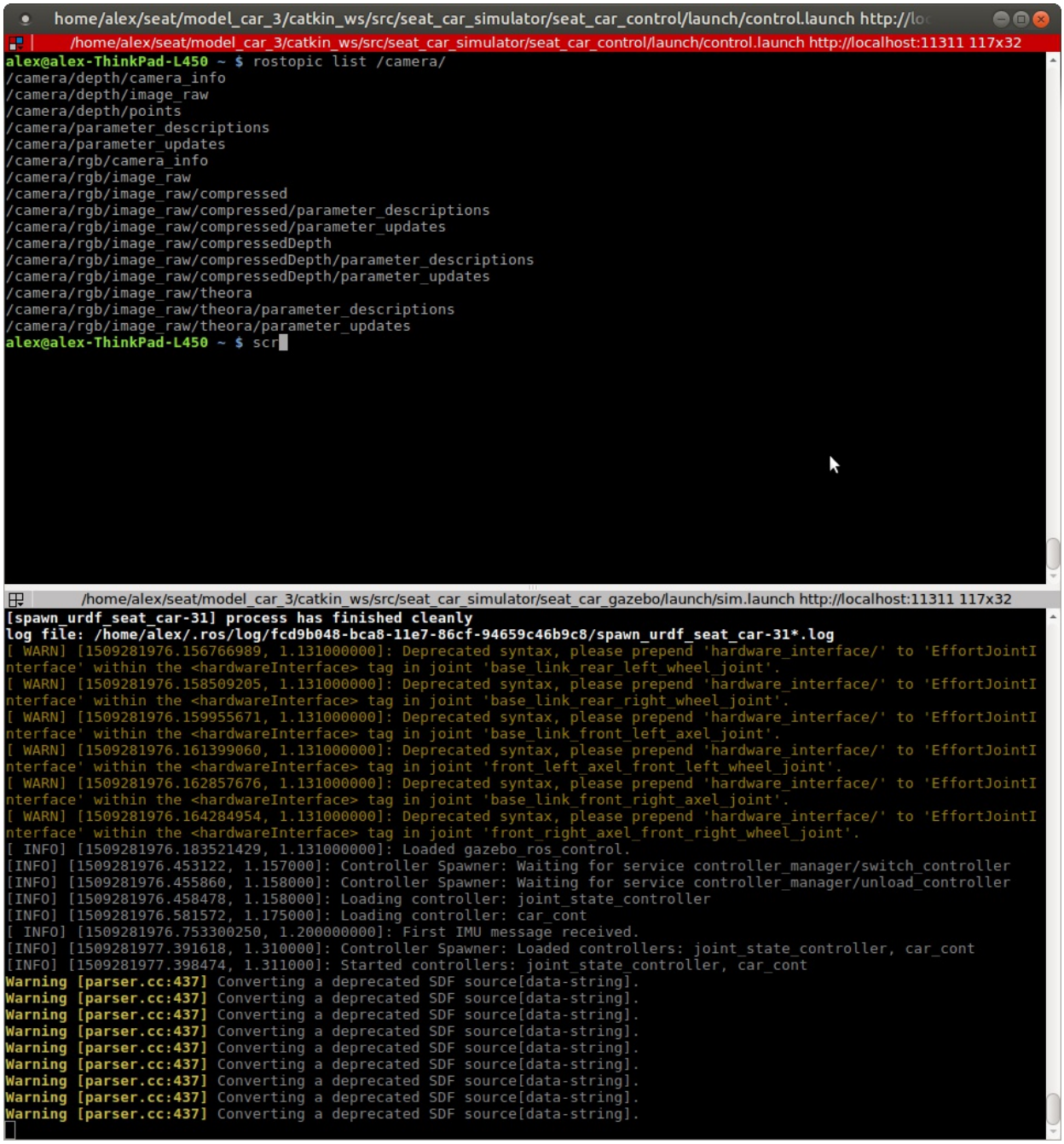


2. Gazebo and model car



3. ROS topics and Moving the Simulated car

```
rostopic list /camera/
```


home/alex/seat/model_car_3/catkin_ws/src/seat_car_simulator/seat_car_control/launch/control.launch http://lo
/home/alex/seat/model_car_3/catkin_ws/src/seat_car_simulator/seat_car_control/launch/control.launch http://localhost:11311 117x32
alex@alex-ThinkPad-L450 ~ $ rostopic list /camera/
/camera/depth/camera_info
/camera/depth/image_raw
/camera/depth/points
/camera/parameter_descriptions
/camera/parameter_updates
/camera/rgb/camera_info
/camera/rgb/image_raw
/camera/rgb/image_raw/compressed
/camera/rgb/image_raw/compressed/parameter_descriptions
/camera/rgb/image_raw/compressed/parameter_updates
/camera/rgb/image_raw/compressedDepth
/camera/rgb/image_raw/compressedDepth/parameter_descriptions
/camera/rgb/image_raw/compressedDepth/parameter_updates
/camera/rgb/image_raw/theora
/camera/rgb/image_raw/theora/parameter_descriptions
/camera/rgb/image_raw/theora/parameter_updates
alex@alex-ThinkPad-L450 ~ $ scr
/home/alex/seat/model_car_3/catkin_ws/src/seat_car_simulator/seat_car_gazebo/launch/sim.launch http://localhost:11311 117x32
[spawn_urdf_seat_car-31] process has finished cleanly
log file: /home/alex/.ros/log/fcd9b048-bca8-11e7-86cf-94659c46b9c8/spawn_urdf_seat_car-31*.log
[WARN] [1509281976.156766989, 1.131000000]: Deprecated syntax, please prepend 'hardware_interface/' to 'EffortJointI
nterface' within the <hardwareInterface> tag in joint 'base_link_rear_left_wheel_joint'.
[WARN] [1509281976.158509205, 1.131000000]: Deprecated syntax, please prepend 'hardware_interface/' to 'EffortJointI
nterface' within the <hardwareInterface> tag in joint 'base_link_rear_right_wheel_joint'.
[WARN] [1509281976.159955671, 1.131000000]: Deprecated syntax, please prepend 'hardware_interface/' to 'EffortJointI
nterface' within the <hardwareInterface> tag in joint 'base_link_front_left_axel_joint'.
[WARN] [1509281976.161399060, 1.131000000]: Deprecated syntax, please prepend 'hardware_interface/' to 'EffortJointI
nterface' within the <hardwareInterface> tag in joint 'front_left_axel_front_left_wheel_joint'.
[WARN] [1509281976.162857676, 1.131000000]: Deprecated syntax, please prepend 'hardware_interface/' to 'EffortJointI
nterface' within the <hardwareInterface> tag in joint 'base_link_front_right_axel_joint'.
[WARN] [1509281976.164284954, 1.131000000]: Deprecated syntax, please prepend 'hardware_interface/' to 'EffortJointI
nterface' within the <hardwareInterface> tag in joint 'front_right_axel_front_right_wheel_joint'.
[INFO] [1509281976.183521429, 1.131000000]: Loaded gazebo_ros_control.
[INFO] [1509281976.453122, 1.157000]: Controller Spawner: Waiting for service controller_manager/switch_controller
[INFO] [1509281976.455860, 1.158000]: Controller Spawner: Waiting for service controller_manager/unload_controller
[INFO] [1509281976.458478, 1.158000]: Loading controller: joint_state_controller
[INFO] [1509281976.581572, 1.175000]: Loading controller: car_cont
[INFO] [1509281976.753300250, 1.200000000]: First IMU message received.
[INFO] [1509281977.391618, 1.310000]: Controller Spawner: Loaded controllers: joint_state_controller, car_cont
[INFO] [1509281977.398474, 1.311000]: Started controllers: joint_state_controller, car_cont
Warning [parser.cc:437] Converting a deprecated SDF source[data-string].
Warning [parser.cc:437] Converting a deprecated SDF source[data-string].
Warning [parser.cc:437] Converting a deprecated SDF source[data-string].
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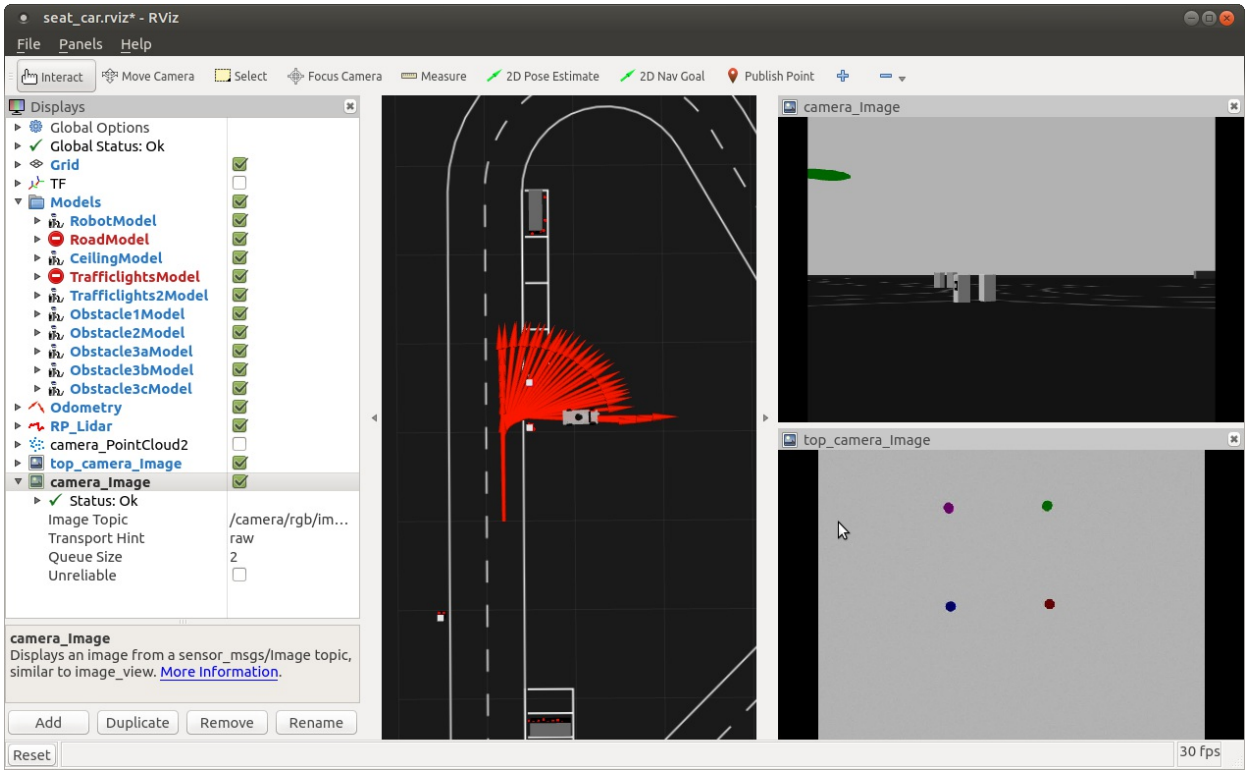

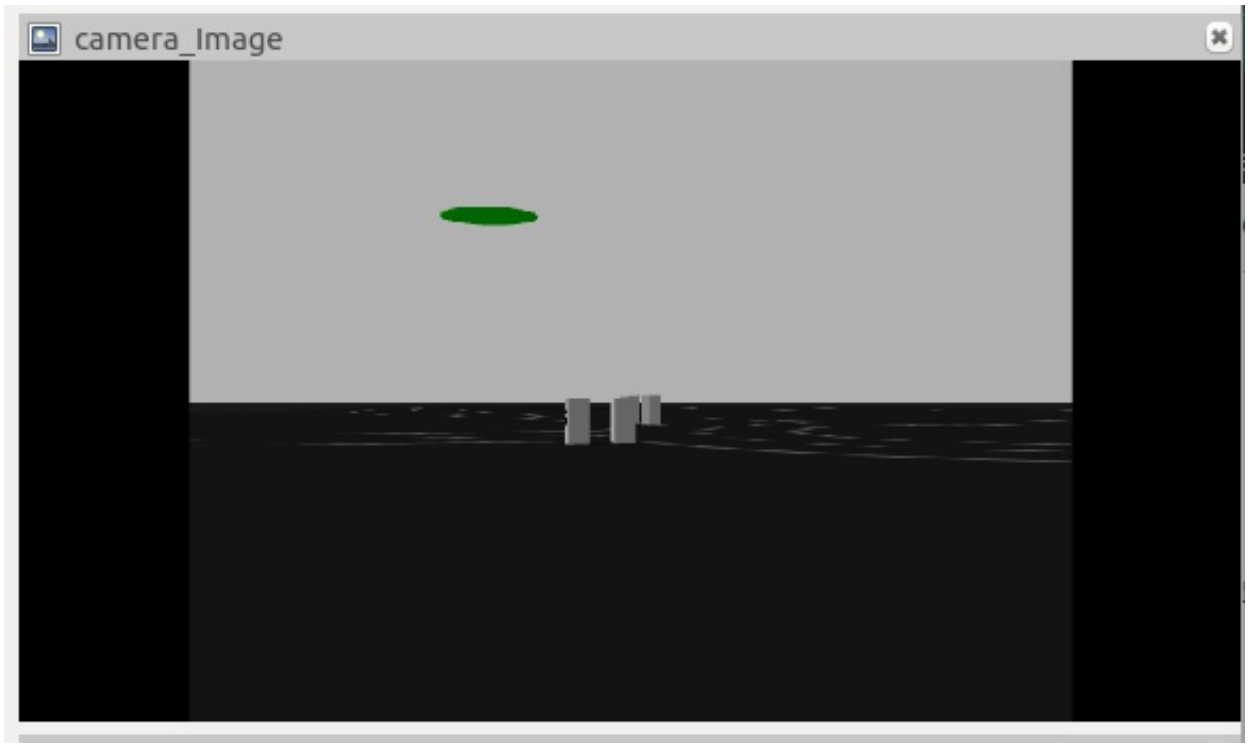

`rostopic list`

```
/camera/depth/camera_info
/camera/depth/image_raw
/camera/depth/points
/camera/parameter_descriptions
/camera/parameter_updates
```

```
/camera/rgb/camera_info
/camera/rgb/image_raw
/camera/rgb/image_raw/compressed
/camera/rgb/image_raw/compressed/parameter_descriptions
/camera/rgb/image_raw/compressed/parameter_updates
/camera/rgb/image_raw/compressedDepth
/camera/rgb/image_raw/compressedDepth/parameter_descriptions
/camera/rgb/image_raw/compressedDepth/parameter_updates
/camera/rgb/image_raw/theora
/camera/rgb/image_raw/theora/parameter_descriptions
/camera/rgb/image_raw/theora/parameter_updates
/ceiling/joint_states
/clock
/gazebo/link_states
/gazebo/model_states
/gazebo/parameter_descriptions
/gazebo/parameter_updates
/gazebo/set_link_state
/gazebo/set_model_state
/imu
/imu/accel/parameter_descriptions
/imu/accel/parameter_updates
/imu/bias
/imu/data
/imu/rate/parameter_descriptions
/imu/rate/parameter_updates
/imu/yaw/parameter_descriptions
/imu/yaw/parameter_updates
/imu_filter/parameter_descriptions
/imu_filter/parameter_updates
/manual_control/speed
/manual_control/steering
/manual_control/stop_start
/model_car/revolutions
/model_car/twist
/model_car/yaw
/obstacle1/amcl_pose
/obstacle1/cmd_vel
/obstacle1/initialpose
/obstacle1/joint_states
/obstacle1/odom
/obstacle2/amcl_pose
/obstacle2/cmd_vel
/obstacle2/initialpose
/obstacle2/joint_states
/obstacle2/odom
/obstacle3a/amcl_pose
/obstacle3a/cmd_vel
/obstacle3a/initialpose
/obstacle3a/joint_states
/obstacle3a/odom
/obstacle3b/amcl_pose
/obstacle3b/cmd_vel
/obstacle3b/initialpose
/obstacle3b/joint_states
/obstacle3b/odom
```

```
/obstacle3c/amcl_pose
/obstacle3c/cmd_vel
/obstacle3c/initialpose
/obstacle3c/joint_states
/obstacle3c/odom
/odom
/odom_ground_truth
/particlecloud
/road/joint_states
/rosout
/rosout_agg
/scan
/seat_car/amcl_pose
/seat_car/car_cont/gains/base_link_front_left_axel_joint/parameter_descriptions
/seat_car/car_cont/gains/base_link_front_left_axel_joint/parameter_updates
/seat_car/car_cont/gains/base_link_front_right_axel_joint/parameter_descriptions
/seat_car/car_cont/gains/base_link_front_right_axel_joint/parameter_updates
/seat_car/car_cont/gains/base_link_rear_left_wheel_joint/parameter_descriptions
/seat_car/car_cont/gains/base_link_rear_left_wheel_joint/parameter_updates
/seat_car/car_cont/gains/base_link_rear_right_wheel_joint/parameter_descriptions
/seat_car/car_cont/gains/base_link_rear_right_wheel_joint/parameter_updates
/seat_car/car_cont/gains/front_left_axel_front_left_wheel_joint/parameter_descripti
/seat_car/car_cont/gains/front_left_axel_front_left_wheel_joint/parameter_updates
/seat_car/car_cont/gains/front_right_axel_front_right_wheel_joint/parameter_descrip
/seat_car/car_cont/gains/front_right_axel_front_right_wheel_joint/parameter_updates
/seat_car/initialpose
/seat_car/joint_states
/semaphore_intersection1_color_plugin/set_color
/semaphore_intersection1_color_plugin/set_material
/semaphore_intersection2_color_plugin/set_color
/semaphore_intersection2_color_plugin/set_material
/semaphore_intersection3_color_plugin/set_color
/semaphore_intersection3_color_plugin/set_material
/semaphore_parking1_color_plugin/set_color
/semaphore_parking1_color_plugin/set_material
/semaphore_parking2_color_plugin/set_color
/semaphore_parking2_color_plugin/set_material
/semaphore_roundabout1_color_plugin/set_color
/semaphore_roundabout1_color_plugin/set_material
/semaphore_roundabout2_color_plugin/set_color
/semaphore_roundabout2_color_plugin/set_material
/semaphore_start1_color_plugin/set_color
/semaphore_start1_color_plugin/set_material
/semaphore_start2_color_plugin/set_color
/semaphore_start2_color_plugin/set_material
/tf
/tf_static
/trafficlights_extra_example/joint_states
/trafficlights_fixed/joint_states
/usb_cam/camera_info
/usb_cam/image_raw
/usb_cam/image_raw/compressed
/usb_cam/image_raw/compressed/parameter_descriptions
/usb_cam/image_raw/compressed/parameter_updates
/usb_cam/image_raw/compressedDepth
/usb_cam/image_raw/compressedDepth/parameter_descriptions
```

```
/usb_cam/image_raw/compressedDepth/parameter_updates
/usb_cam/image_raw/theora
/usb_cam/image_raw/theora/parameter_descriptions
/usb_cam/image_raw/theora/parameter_updates
/usb_cam/parameter_descriptions
/usb_cam/parameter_updates
```