

```
workstation@workstation:~$ roslaunch px4 multi_uav_mavros_sitl.launch
... logging to /home/workstation/.ros/log/b6805d4a-1763-11eb-b907-04d4c43987b4/
roslaunch-workstation-21515.log
Checking log directory for disk usage. This may take awhile.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.
```

```
started roslaunch server http://localhost:38829/
```

SUMMARY

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```

CLEAR PARAMETERS

```
* /uav0/mavros/
* /uav1/mavros/
* /uav2/mavros/
```

PARAMETERS

```
* /rostdistro: kinetic
* /rosversion: 1.12.16
* /uav0/mavros/cmd/use_comp_id_system_control: False
* /uav0/mavros/conn/heartbeat_rate: 1.0
* /uav0/mavros/conn/system_time_rate: 1.0
* /uav0/mavros/conn/timeout: 10.0
* /uav0/mavros/conn/timesync_rate: 10.0
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/field_of_view: 0.0
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/frame_id: hrlv_ez4_sonar
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/id: 0
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/orientation: PITCH_270
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/send_tf: True
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/x: 0.0
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/y: 0.0
* /uav0/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/z: -0.1
* /uav0/mavros/distance_sensor/laser_1_sub/id: 3
* /uav0/mavros/distance_sensor/laser_1_sub/orientation: PITCH_270
* /uav0/mavros/distance_sensor/laser_1_sub/subscriber: True
* /uav0/mavros/distance_sensor/lidarlite_pub/field_of_view: 0.0
* /uav0/mavros/distance_sensor/lidarlite_pub/frame_id: lidarlite_laser
* /uav0/mavros/distance_sensor/lidarlite_pub/id: 1
* /uav0/mavros/distance_sensor/lidarlite_pub/orientation: PITCH_270
* /uav0/mavros/distance_sensor/lidarlite_pub/send_tf: True
* /uav0/mavros/distance_sensor/lidarlite_pub/sensor_position/x: 0.0
* /uav0/mavros/distance_sensor/lidarlite_pub/sensor_position/y: 0.0
* /uav0/mavros/distance_sensor/lidarlite_pub/sensor_position/z: -0.1
* /uav0/mavros/distance_sensor/sonar_1_sub/id: 2
* /uav0/mavros/distance_sensor/sonar_1_sub/orientation: PITCH_270
* /uav0/mavros/distance_sensor/sonar_1_sub/subscriber: True
* /uav0/mavros/fake_gps/eph: 2.0
* /uav0/mavros/fake_gps/epv: 2.0
* /uav0/mavros/fake_gps/fix_type: 3
* /uav0/mavros/fake_gps/geo_origin/alt: 408.0
* /uav0/mavros/fake_gps/geo_origin/lat: 47.3667
* /uav0/mavros/fake_gps/geo_origin/lon: 8.55
* /uav0/mavros/fake_gps/gps_rate: 5.0
* /uav0/mavros/fake_gps/mocap_transform: True
* /uav0/mavros/fake_gps/satellites_visible: 5
* /uav0/mavros/fake_gps/tf/child_frame_id: fix
* /uav0/mavros/fake_gps/tf/frame_id: map
* /uav0/mavros/fake_gps/tf/listen: False
* /uav0/mavros/fake_gps/tf/rate_limit: 10.0
* /uav0/mavros/fake_gps/tf/send: False
* /uav0/mavros/fake_gps/use_mocap: True
```

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* /uav0/mavros/fake_gps/use_vision: False
* /uav0/mavros/fcu_protocol: v2.0
* /uav0/mavros/fcu_url: udp://:14540@loca...
* /uav0/mavros/gcs_url:
* /uav0/mavros/global_position/child_frame_id: base_link
* /uav0/mavros/global_position/frame_id: map
* /uav0/mavros/global_position/gps_uere: 1.0
* /uav0/mavros/global_position/rot_covariance: 99999.0
* /uav0/mavros/global_position/tf/child_frame_id: base_link
* /uav0/mavros/global_position/tf/frame_id: map
* /uav0/mavros/global_position/tf/global_frame_id: earth
* /uav0/mavros/global_position/tf/send: False
* /uav0/mavros/global_position/use_relative_alt: True
* /uav0/mavros/image/frame_id: px4flow
* /uav0/mavros/imu/angular_velocity_stdev: 0.0003490659 // 0...
* /uav0/mavros/imu/frame_id: base_link
* /uav0/mavros/imu/linear_acceleration_stdev: 0.0003
* /uav0/mavros/imu/magnetic_stdev: 0.0
* /uav0/mavros/imu/orientation_stdev: 1.0
* /uav0/mavros/landing_target/camera/fov_x: 2.0071286398
* /uav0/mavros/landing_target/camera/fov_y: 2.0071286398
* /uav0/mavros/landing_target/image/height: 480
* /uav0/mavros/landing_target/image/width: 640
* /uav0/mavros/landing_target/land_target_type: VISION_FIDUCIAL
* /uav0/mavros/landing_target/listen_lt: False
* /uav0/mavros/landing_target/mav_frame: LOCAL_NED
* /uav0/mavros/landing_target/target_size/x: 0.3
* /uav0/mavros/landing_target/target_size/y: 0.3
* /uav0/mavros/landing_target/tf/child_frame_id: camera_center
* /uav0/mavros/landing_target/tf/frame_id: landing_target
* /uav0/mavros/landing_target/tf/listen: False
* /uav0/mavros/landing_target/tf/rate_limit: 10.0
* /uav0/mavros/landing_target/tf/send: True
* /uav0/mavros/local_position/frame_id: map
* /uav0/mavros/local_position/tf/child_frame_id: base_link
* /uav0/mavros/local_position/tf/frame_id: map
* /uav0/mavros/local_position/tf/send: False
* /uav0/mavros/local_position/tf/send_fcu: False
* /uav0/mavros/mission/pull_after_gcs: True
* /uav0/mavros/mission/use_mission_item_int: True
* /uav0/mavros/mocap/use_pose: True
* /uav0/mavros/mocap/use_tf: False
* /uav0/mavros/odometry/fcu/odom_child_id_des: base_link
* /uav0/mavros/odometry/fcu/odom_parent_id_des: map
* /uav0/mavros/plugin_blacklist: ['safety_area', '...
* /uav0/mavros/plugin_whitelist: []
* /uav0/mavros/px4flow/frame_id: px4flow
* /uav0/mavros/px4flow/ranger_fov: 0.118682
* /uav0/mavros/px4flow/ranger_max_range: 5.0
* /uav0/mavros/px4flow/ranger_min_range: 0.3
* /uav0/mavros/safety_area/p1/x: 1.0
* /uav0/mavros/safety_area/p1/y: 1.0
* /uav0/mavros/safety_area/p1/z: 1.0
* /uav0/mavros/safety_area/p2/x: -1.0
* /uav0/mavros/safety_area/p2/y: -1.0
* /uav0/mavros/safety_area/p2/z: -1.0
* /uav0/mavros/setpoint_accel/send_force: False
* /uav0/mavros/setpoint_attitude/reverse_thrust: False
* /uav0/mavros/setpoint_attitude/tf/child_frame_id: target_attitude
* /uav0/mavros/setpoint_attitude/tf/frame_id: map
* /uav0/mavros/setpoint_attitude/tf/listen: False
* /uav0/mavros/setpoint_attitude/tf/rate_limit: 50.0
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* /uav0/mavros/setpoint_attitude/use_quaternion: False
* /uav0/mavros/setpoint_position/mav_frame: LOCAL_NED
* /uav0/mavros/setpoint_position/tf/child_frame_id: target_position
* /uav0/mavros/setpoint_position/tf/frame_id: map
* /uav0/mavros/setpoint_position/tf/listen: False
* /uav0/mavros/setpoint_position/tf/rate_limit: 50.0
* /uav0/mavros/setpoint_raw/thrust_scaling: 1.0
* /uav0/mavros/setpoint_velocity/mav_frame: LOCAL_NED
* /uav0/mavros/startup_px4_usb_quirk: True
* /uav0/mavros/sys/disable_diag: False
* /uav0/mavros/sys/min_voltage: 10.0
* /uav0/mavros/target_component_id: 1
* /uav0/mavros/target_system_id: 1
* /uav0/mavros/tdr_radio/low_rssi: 40
* /uav0/mavros/time/time_ref_source: fcu
* /uav0/mavros/time/timesync_avg_alpha: 0.6
* /uav0/mavros/time/timesync_mode: MAVLINK
* /uav0/mavros/vibration/frame_id: base_link
* /uav0/mavros/vision_pose/tf/child_frame_id: vision_estimate
* /uav0/mavros/vision_pose/tf/frame_id: odom
* /uav0/mavros/vision_pose/tf/listen: False
* /uav0/mavros/vision_pose/tf/rate_limit: 10.0
* /uav0/mavros/vision_speed/listen_twist: True
* /uav0/mavros/vision_speed/twist_cov: True
* /uav0/mavros/wheel_odometry/child_frame_id: base_link
* /uav0/mavros/wheel_odometry/count: 2
* /uav0/mavros/wheel_odometry/frame_id: odom
* /uav0/mavros/wheel_odometry/send_raw: True
* /uav0/mavros/wheel_odometry/send_twist: False
* /uav0/mavros/wheel_odometry/tf/child_frame_id: base_link
* /uav0/mavros/wheel_odometry/tf/frame_id: odom
* /uav0/mavros/wheel_odometry/tf/send: False
* /uav0/mavros/wheel_odometry/use_rpm: False
* /uav0/mavros/wheel_odometry/vel_error: 0.1
* /uav0/mavros/wheel_odometry/wheel0/radius: 0.05
* /uav0/mavros/wheel_odometry/wheel0/x: 0.0
* /uav0/mavros/wheel_odometry/wheel0/y: -0.15
* /uav0/mavros/wheel_odometry/wheel1/radius: 0.05
* /uav0/mavros/wheel_odometry/wheel1/x: 0.0
* /uav0/mavros/wheel_odometry/wheel1/y: 0.15
* /uav0/sdf_iris0: <!-- DO NOT EDIT...
* /uav1/mavros/cmd/use_comp_id_system_control: False
* /uav1/mavros/conn/heartbeat_rate: 1.0
* /uav1/mavros/conn/system_time_rate: 1.0
* /uav1/mavros/conn/timeout: 10.0
* /uav1/mavros/conn/timesync_rate: 10.0
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/field_of_view: 0.0
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/frame_id: hrlv_ez4_sonar
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/id: 0
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/orientation: PITCH_270
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/send_tf: True
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/x: 0.0
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/y: 0.0
* /uav1/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/z: -0.1
* /uav1/mavros/distance_sensor/laser_1_sub/id: 3
* /uav1/mavros/distance_sensor/laser_1_sub/orientation: PITCH_270
* /uav1/mavros/distance_sensor/laser_1_sub/subscriber: True
* /uav1/mavros/distance_sensor/lidarlite_pub/field_of_view: 0.0
* /uav1/mavros/distance_sensor/lidarlite_pub/frame_id: lidarlite_laser
* /uav1/mavros/distance_sensor/lidarlite_pub/id: 1
* /uav1/mavros/distance_sensor/lidarlite_pub/orientation: PITCH_270
* /uav1/mavros/distance_sensor/lidarlite_pub/send_tf: True
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* /uav1/mavros/distance_sensor/lidarlite_pub/sensor_position/x: 0.0
* /uav1/mavros/distance_sensor/lidarlite_pub/sensor_position/y: 0.0
* /uav1/mavros/distance_sensor/lidarlite_pub/sensor_position/z: -0.1
* /uav1/mavros/distance_sensor/sonar_1_sub/id: 2
* /uav1/mavros/distance_sensor/sonar_1_sub/orientation: PITCH_270
* /uav1/mavros/distance_sensor/sonar_1_sub/subscriber: True
* /uav1/mavros/fake_gps/eph: 2.0
* /uav1/mavros/fake_gps/epv: 2.0
* /uav1/mavros/fake_gps/fix_type: 3
* /uav1/mavros/fake_gps/geo_origin/alt: 408.0
* /uav1/mavros/fake_gps/geo_origin/lat: 47.3667
* /uav1/mavros/fake_gps/geo_origin/lon: 8.55
* /uav1/mavros/fake_gps/gps_rate: 5.0
* /uav1/mavros/fake_gps/mocap_transform: True
* /uav1/mavros/fake_gps/satellites_visible: 5
* /uav1/mavros/fake_gps/tf/child_frame_id: fix
* /uav1/mavros/fake_gps/tf/frame_id: map
* /uav1/mavros/fake_gps/tf/listen: False
* /uav1/mavros/fake_gps/tf/rate_limit: 10.0
* /uav1/mavros/fake_gps/tf/send: False
* /uav1/mavros/fake_gps/use_mocap: True
* /uav1/mavros/fake_gps/use_vision: False
* /uav1/mavros/fcu_protocol: v2.0
* /uav1/mavros/fcu_url: udp://:14541@loca...
* /uav1/mavros/gcs_url:
* /uav1/mavros/global_position/child_frame_id: base_link
* /uav1/mavros/global_position/frame_id: map
* /uav1/mavros/global_position/gps_uere: 1.0
* /uav1/mavros/global_position/rot_covariance: 99999.0
* /uav1/mavros/global_position/tf/child_frame_id: base_link
* /uav1/mavros/global_position/tf/frame_id: map
* /uav1/mavros/global_position/tf/global_frame_id: earth
* /uav1/mavros/global_position/tf/send: False
* /uav1/mavros/global_position/use_relative_alt: True
* /uav1/mavros/image/frame_id: px4flow
* /uav1/mavros/imu/angular_velocity_stdev: 0.0003490659 // 0...
* /uav1/mavros/imu/frame_id: base_link
* /uav1/mavros/imu/linear_acceleration_stdev: 0.0003
* /uav1/mavros/imu/magnetic_stdev: 0.0
* /uav1/mavros/imu/orientation_stdev: 1.0
* /uav1/mavros/landing_target/camera/fov_x: 2.0071286398
* /uav1/mavros/landing_target/camera/fov_y: 2.0071286398
* /uav1/mavros/landing_target/image/height: 480
* /uav1/mavros/landing_target/image/width: 640
* /uav1/mavros/landing_target/land_target_type: VISION_FIDUCIAL
* /uav1/mavros/landing_target/listen_lt: False
* /uav1/mavros/landing_target/mav_frame: LOCAL_NED
* /uav1/mavros/landing_target/target_size/x: 0.3
* /uav1/mavros/landing_target/target_size/y: 0.3
* /uav1/mavros/landing_target/tf/child_frame_id: camera_center
* /uav1/mavros/landing_target/tf/frame_id: landing_target
* /uav1/mavros/landing_target/tf/listen: False
* /uav1/mavros/landing_target/tf/rate_limit: 10.0
* /uav1/mavros/landing_target/tf/send: True
* /uav1/mavros/local_position/frame_id: map
* /uav1/mavros/local_position/tf/child_frame_id: base_link
* /uav1/mavros/local_position/tf/frame_id: map
* /uav1/mavros/local_position/tf/send: False
* /uav1/mavros/local_position/tf/send_fcu: False
* /uav1/mavros/mission/pull_after_gcs: True
* /uav1/mavros/mission/use_mission_item_int: True
* /uav1/mavros/mocap/use_pose: True
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* /uav1/mavros/mocap/use_tf: False
* /uav1/mavros/odometry/fcu/odom_child_id_des: base_link
* /uav1/mavros/odometry/fcu/odom_parent_id_des: map
* /uav1/mavros/plugin_blacklist: ['safety_area', '...
* /uav1/mavros/plugin_whitelist: []
* /uav1/mavros/px4flow/frame_id: px4flow
* /uav1/mavros/px4flow/ranger_fov: 0.118682
* /uav1/mavros/px4flow/ranger_max_range: 5.0
* /uav1/mavros/px4flow/ranger_min_range: 0.3
* /uav1/mavros/safety_area/p1/x: 1.0
* /uav1/mavros/safety_area/p1/y: 1.0
* /uav1/mavros/safety_area/p1/z: 1.0
* /uav1/mavros/safety_area/p2/x: -1.0
* /uav1/mavros/safety_area/p2/y: -1.0
* /uav1/mavros/safety_area/p2/z: -1.0
* /uav1/mavros/setpoint_accel/send_force: False
* /uav1/mavros/setpoint_attitude/reverse_thrust: False
* /uav1/mavros/setpoint_attitude/tf/child_frame_id: target_attitude
* /uav1/mavros/setpoint_attitude/tf/frame_id: map
* /uav1/mavros/setpoint_attitude/tf/listen: False
* /uav1/mavros/setpoint_attitude/tf/rate_limit: 50.0
* /uav1/mavros/setpoint_attitude/use_quaternion: False
* /uav1/mavros/setpoint_position/mav_frame: LOCAL_NED
* /uav1/mavros/setpoint_position/tf/child_frame_id: target_position
* /uav1/mavros/setpoint_position/tf/frame_id: map
* /uav1/mavros/setpoint_position/tf/listen: False
* /uav1/mavros/setpoint_position/tf/rate_limit: 50.0
* /uav1/mavros/setpoint_raw/thrust_scaling: 1.0
* /uav1/mavros/setpoint_velocity/mav_frame: LOCAL_NED
* /uav1/mavros/startup_px4_usb_quirk: True
* /uav1/mavros/sys/disable_diag: False
* /uav1/mavros/sys/min_voltage: 10.0
* /uav1/mavros/target_component_id: 1
* /uav1/mavros/target_system_id: 2
* /uav1/mavros/tdr_radio/low_rssi: 40
* /uav1/mavros/time/time_ref_source: fcu
* /uav1/mavros/time/timesync_avg_alpha: 0.6
* /uav1/mavros/time/timesync_mode: MAVLINK
* /uav1/mavros/vibration/frame_id: base_link
* /uav1/mavros/vision_pose/tf/child_frame_id: vision_estimate
* /uav1/mavros/vision_pose/tf/frame_id: odom
* /uav1/mavros/vision_pose/tf/listen: False
* /uav1/mavros/vision_pose/tf/rate_limit: 10.0
* /uav1/mavros/vision_speed/listen_twist: True
* /uav1/mavros/vision_speed/twist_cov: True
* /uav1/mavros/wheel_odometry/child_frame_id: base_link
* /uav1/mavros/wheel_odometry/count: 2
* /uav1/mavros/wheel_odometry/frame_id: odom
* /uav1/mavros/wheel_odometry/send_raw: True
* /uav1/mavros/wheel_odometry/send_twist: False
* /uav1/mavros/wheel_odometry/tf/child_frame_id: base_link
* /uav1/mavros/wheel_odometry/tf/frame_id: odom
* /uav1/mavros/wheel_odometry/tf/send: False
* /uav1/mavros/wheel_odometry/use_rpm: False
* /uav1/mavros/wheel_odometry/vel_error: 0.1
* /uav1/mavros/wheel_odometry/wheel0/radius: 0.05
* /uav1/mavros/wheel_odometry/wheel0/x: 0.0
* /uav1/mavros/wheel_odometry/wheel0/y: -0.15
* /uav1/mavros/wheel_odometry/wheel1/radius: 0.05
* /uav1/mavros/wheel_odometry/wheel1/x: 0.0
* /uav1/mavros/wheel_odometry/wheel1/y: 0.15
* /uav1/sdf_iris1: <!-- DO NOT EDIT...
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* /uav2/mavros/cmd/use_comp_id_system_control: False
* /uav2/mavros/conn/heartbeat_rate: 1.0
* /uav2/mavros/conn/system_time_rate: 1.0
* /uav2/mavros/conn/timeout: 10.0
* /uav2/mavros/conn/timesync_rate: 10.0
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/field_of_view: 0.0
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/frame_id: hrlv_ez4_sonar
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/id: 0
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/orientation: PITCH_270
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/send_tf: True
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/x: 0.0
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/y: 0.0
* /uav2/mavros/distance_sensor/hrlv_ez4_pub/sensor_position/z: -0.1
* /uav2/mavros/distance_sensor/laser_1_sub/id: 3
* /uav2/mavros/distance_sensor/laser_1_sub/orientation: PITCH_270
* /uav2/mavros/distance_sensor/laser_1_sub/subscriber: True
* /uav2/mavros/distance_sensor/lidarlite_pub/field_of_view: 0.0
* /uav2/mavros/distance_sensor/lidarlite_pub/frame_id: lidarlite_laser
* /uav2/mavros/distance_sensor/lidarlite_pub/id: 1
* /uav2/mavros/distance_sensor/lidarlite_pub/orientation: PITCH_270
* /uav2/mavros/distance_sensor/lidarlite_pub/send_tf: True
* /uav2/mavros/distance_sensor/lidarlite_pub/sensor_position/x: 0.0
* /uav2/mavros/distance_sensor/lidarlite_pub/sensor_position/y: 0.0
* /uav2/mavros/distance_sensor/lidarlite_pub/sensor_position/z: -0.1
* /uav2/mavros/distance_sensor/sonar_1_sub/id: 2
* /uav2/mavros/distance_sensor/sonar_1_sub/orientation: PITCH_270
* /uav2/mavros/distance_sensor/sonar_1_sub/subscriber: True
* /uav2/mavros/fake_gps/eph: 2.0
* /uav2/mavros/fake_gps/epv: 2.0
* /uav2/mavros/fake_gps/fix_type: 3
* /uav2/mavros/fake_gps/geo_origin/alt: 408.0
* /uav2/mavros/fake_gps/geo_origin/lat: 47.3667
* /uav2/mavros/fake_gps/geo_origin/lon: 8.55
* /uav2/mavros/fake_gps/gps_rate: 5.0
* /uav2/mavros/fake_gps/mocap_transform: True
* /uav2/mavros/fake_gps/satellites_visible: 5
* /uav2/mavros/fake_gps/tf/child_frame_id: fix
* /uav2/mavros/fake_gps/tf/frame_id: map
* /uav2/mavros/fake_gps/tf/listen: False
* /uav2/mavros/fake_gps/tf/rate_limit: 10.0
* /uav2/mavros/fake_gps/tf/send: False
* /uav2/mavros/fake_gps/use_mocap: True
* /uav2/mavros/fake_gps/use_vision: False
* /uav2/mavros/fcu_protocol: v2.0
* /uav2/mavros/fcu_url: udp://:14542@loca...
* /uav2/mavros/gcs_url:
* /uav2/mavros/global_position/child_frame_id: base_link
* /uav2/mavros/global_position/frame_id: map
* /uav2/mavros/global_position/gps_uere: 1.0
* /uav2/mavros/global_position/rot_covariance: 99999.0
* /uav2/mavros/global_position/tf/child_frame_id: base_link
* /uav2/mavros/global_position/tf/frame_id: map
* /uav2/mavros/global_position/tf/global_frame_id: earth
* /uav2/mavros/global_position/tf/send: False
* /uav2/mavros/global_position/use_relative_alt: True
* /uav2/mavros/image/frame_id: px4flow
* /uav2/mavros/imu/angular_velocity_stdev: 0.0003490659 // 0...
* /uav2/mavros/imu/frame_id: base_link
* /uav2/mavros/imu/linear_acceleration_stdev: 0.0003
* /uav2/mavros/imu/magnetic_stdev: 0.0
* /uav2/mavros/imu/orientation_stdev: 1.0
* /uav2/mavros/landing_target/camera/fov_x: 2.0071286398
```

```
* /uav2/mavros/landing_target/camera/fov_y: 2.0071286398
* /uav2/mavros/landing_target/image/height: 480
* /uav2/mavros/landing_target/image/width: 640
* /uav2/mavros/landing_target/land_target_type: VISION_FIDUCIAL
* /uav2/mavros/landing_target/listen_lt: False
* /uav2/mavros/landing_target/mav_frame: LOCAL_NED
* /uav2/mavros/landing_target/target_size/x: 0.3
* /uav2/mavros/landing_target/target_size/y: 0.3
* /uav2/mavros/landing_target/tf/child_frame_id: camera_center
* /uav2/mavros/landing_target/tf/frame_id: landing_target
* /uav2/mavros/landing_target/tf/listen: False
* /uav2/mavros/landing_target/tf/rate_limit: 10.0
* /uav2/mavros/landing_target/tf/send: True
* /uav2/mavros/local_position/frame_id: map
* /uav2/mavros/local_position/tf/child_frame_id: base_link
* /uav2/mavros/local_position/tf/frame_id: map
* /uav2/mavros/local_position/tf/send: False
* /uav2/mavros/local_position/tf/send_fcu: False
* /uav2/mavros/mission/pull_after_gcs: True
* /uav2/mavros/mission/use_mission_item_int: True
* /uav2/mavros/mocap/use_pose: True
* /uav2/mavros/mocap/use_tf: False
* /uav2/mavros/odometry/fcu/odom_child_id_des: base_link
* /uav2/mavros/odometry/fcu/odom_parent_id_des: map
* /uav2/mavros/plugin_blacklist: ['safety_area', '...
* /uav2/mavros/plugin_whitelist: []
* /uav2/mavros/px4flow/frame_id: px4flow
* /uav2/mavros/px4flow/ranger_fov: 0.118682
* /uav2/mavros/px4flow/ranger_max_range: 5.0
* /uav2/mavros/px4flow/ranger_min_range: 0.3
* /uav2/mavros/safety_area/p1/x: 1.0
* /uav2/mavros/safety_area/p1/y: 1.0
* /uav2/mavros/safety_area/p1/z: 1.0
* /uav2/mavros/safety_area/p2/x: -1.0
* /uav2/mavros/safety_area/p2/y: -1.0
* /uav2/mavros/safety_area/p2/z: -1.0
* /uav2/mavros/setpoint_accel/send_force: False
* /uav2/mavros/setpoint_attitude/reverse_thrust: False
* /uav2/mavros/setpoint_attitude/tf/child_frame_id: target_attitude
* /uav2/mavros/setpoint_attitude/tf/frame_id: map
* /uav2/mavros/setpoint_attitude/tf/listen: False
* /uav2/mavros/setpoint_attitude/tf/rate_limit: 50.0
* /uav2/mavros/setpoint_attitude/use_quaternion: False
* /uav2/mavros/setpoint_position/mav_frame: LOCAL_NED
* /uav2/mavros/setpoint_position/tf/child_frame_id: target_position
* /uav2/mavros/setpoint_position/tf/frame_id: map
* /uav2/mavros/setpoint_position/tf/listen: False
* /uav2/mavros/setpoint_position/tf/rate_limit: 50.0
* /uav2/mavros/setpoint_raw/thrust_scaling: 1.0
* /uav2/mavros/setpoint_velocity/mav_frame: LOCAL_NED
* /uav2/mavros/startup_px4_usb_quirk: True
* /uav2/mavros/sys/disable_diag: False
* /uav2/mavros/sys/min_voltage: 10.0
* /uav2/mavros/target_component_id: 1
* /uav2/mavros/target_system_id: 3
* /uav2/mavros/tdr_radio/low_rssi: 40
* /uav2/mavros/time/time_ref_source: fcu
* /uav2/mavros/time/timesync_avg_alpha: 0.6
* /uav2/mavros/time/timesync_mode: MAVLINK
* /uav2/mavros/vibration/frame_id: base_link
* /uav2/mavros/vision_pose/tf/child_frame_id: vision_estimate
* /uav2/mavros/vision_pose/tf/frame_id: odom
```

```

* /uav2/mavros/vision_pose/tf/listen: False
* /uav2/mavros/vision_pose/tf/rate_limit: 10.0
* /uav2/mavros/vision_speed/listen_twist: True
* /uav2/mavros/vision_speed/twist_cov: True
* /uav2/mavros/wheel_odometry/child_frame_id: base_link
* /uav2/mavros/wheel_odometry/count: 2
* /uav2/mavros/wheel_odometry/frame_id: odom
* /uav2/mavros/wheel_odometry/send_raw: True
* /uav2/mavros/wheel_odometry/send_twist: False
* /uav2/mavros/wheel_odometry/tf/child_frame_id: base_link
* /uav2/mavros/wheel_odometry/tf/frame_id: odom
* /uav2/mavros/wheel_odometry/tf/send: False
* /uav2/mavros/wheel_odometry/use_rpm: False
* /uav2/mavros/wheel_odometry/vel_error: 0.1
* /uav2/mavros/wheel_odometry/wheel0/radius: 0.05
* /uav2/mavros/wheel_odometry/wheel0/x: 0.0
* /uav2/mavros/wheel_odometry/wheel0/y: -0.15
* /uav2/mavros/wheel_odometry/wheel1/radius: 0.05
* /uav2/mavros/wheel_odometry/wheel1/x: 0.0
* /uav2/mavros/wheel_odometry/wheel1/y: 0.15
* /uav2/sdf_iris2: <!-- DO NOT EDIT...
* /use_sim_time: True

```

NODES

```

/uav1/
  mavros (mavros/mavros_node)
  sitl_1 (px4/px4)
  vehicle_spawn_workstation_21515_2982406644196666477 (gazebo_ros/spawn_model)
/uav0/
  mavros (mavros/mavros_node)
  sitl_0 (px4/px4)
  vehicle_spawn_workstation_21515_403409581264068437 (gazebo_ros/spawn_model)
/uav2/
  mavros (mavros/mavros_node)
  sitl_2 (px4/px4)
  vehicle_spawn_workstation_21515_4361103927045233431 (gazebo_ros/spawn_model)
/
  gazebo (gazebo_ros/gzserver)
  gazebo_gui (gazebo_ros/gzclient)

```

auto-starting new master

```

process[master]: started with pid [21671]
ROS_MASTER_URI=http://localhost:11311

```

setting /run_id to b6805d4a-1763-11eb-b907-04d4c43987b4

```

process[rosout-1]: started with pid [21684]
started core service [/rosout]
process[gazebo-2]: started with pid [21704]
process[gazebo_gui-3]: started with pid [21709]
process[uav0/sitl_0-4]: started with pid [21714]
INFO [px4] Creating symlink /home/workstation/src/Firmware/build/px4_sitl_default/
etc -> /home/workstation/.ros/sitl_iris_0/etc

```



px4 starting.


```

INFO [px4] Calling startup script: /bin/sh etc/init.d-posix/rcS 0
process[uav0/vehicle_spawn_workstation_21515_403409581264068437-5]: started with pid
[21725]
Info: found model autostart file as SYS_AUTOSTART=10016
INFO [param] selected parameter default file eeprom/parameters_10016
process[uav0/mavros-6]: started with pid [21736]
[param] Loaded: eeprom/parameters_10016
INFO [dataman] Unknown restart, data manager file './dataman' size is 11798680 bytes
INFO [simulator] Waiting for simulator to accept connection on TCP port 4560
process[uav1/sitl_1-7]: started with pid [21794]
INFO [px4] Creating symlink /home/workstation/src/Firmware/build/px4_sitl_default/
etc -> /home/workstation/.ros/sitl_iris_1/etc

```

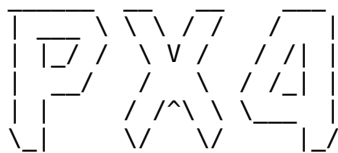


px4 starting.

```

INFO [px4] Calling startup script: /bin/sh etc/init.d-posix/rcS 1
process[uav1/vehicle_spawn_workstation_21515_2982406644196666477-8]: started with pid
[21812]
Info: found model autostart file as SYS_AUTOSTART=10016
INFO [param] selected parameter default file eeprom/parameters_10016
process[uav1/mavros-9]: started with pid [21829]
[param] Loaded: eeprom/parameters_10016
[ INFO] [1603700262.054271148]: FCU URL: udp://:14540@localhost:14580
INFO [dataman] Unknown restart, data manager file './dataman' size is 11798680 bytes
[ INFO] [1603700262.060777492]: udp0: Bind address: 0.0.0.0:14540
[ INFO] [1603700262.060975241]: udp0: Remote address: 127.0.0.1:14580
[ INFO] [1603700262.061210585]: GCS bridge disabled
INFO [simulator] Waiting for simulator to accept connection on TCP port 4561
process[uav2/sitl_2-10]: started with pid [21960]
INFO [px4] Creating symlink /home/workstation/src/Firmware/build/px4_sitl_default/
etc -> /home/workstation/.ros/sitl_iris_2/etc

```



px4 starting.

```

INFO [px4] Calling startup script: /bin/sh etc/init.d-posix/rcS 2
[ INFO] [1603700262.093835577]: Plugin 3dr_radio loaded
[ INFO] [1603700262.100182500]: Plugin 3dr_radio initialized
[ INFO] [1603700262.100330631]: Plugin actuator_control loaded
process[uav2/vehicle_spawn_workstation_21515_4361103927045233431-11]: started with
pid [21973]
Info: found model autostart file as SYS_AUTOSTART=10016
INFO [param] selected parameter default file eeprom/parameters_10016
process[uav2/mavros-12]: started with pid [21998]
[ INFO] [1603700262.119765818]: Plugin actuator_control initialized
[param] Loaded: eeprom/parameters_10016
[ INFO] [1603700262.130162342]: Plugin adsb loaded
[ INFO] [1603700262.150628422]: Plugin adsb initialized
[ INFO] [1603700262.151028641]: Plugin altitude loaded

```

```
[ INFO] [1603700262.156044097]: Plugin altitude initialized
[ INFO] [1603700262.156361586]: Plugin cam_imu_sync loaded
[ INFO] [1603700262.160113434]: Plugin cam_imu_sync initialized
[ INFO] [1603700262.160575702]: Plugin command loaded
INFO [dataman] Unknown restart, data manager file './dataman' size is 11798680 bytes
INFO [simulator] Waiting for simulator to accept connection on TCP port 4562
[ INFO] [1603700262.232204606]: Plugin command initialized
[ INFO] [1603700262.232620927]: Plugin companion_process_status loaded
[ INFO] [1603700262.259928809]: Finished loading Gazebo ROS API Plugin.
the rosdep view is empty: call 'sudo rosdep init' and 'rosdep update'
[ INFO] [1603700262.266760618]: waitForService: Service [/gazebo/
set_physics_properties] has not been advertised, waiting...
[ INFO] [1603700262.271279275]: Plugin companion_process_status initialized
[ INFO] [1603700262.271628354]: Plugin debug_value loaded
[ INFO] [1603700262.334586413]: FCU URL: udp://:14541@localhost:14581
[ INFO] [1603700262.337893760]: udp0: Bind address: 0.0.0.0:14541
[ INFO] [1603700262.337994681]: udp0: Remote address: 127.0.0.1:14581
[ INFO] [1603700262.338128945]: GCS bridge disabled
[ INFO] [1603700262.350590262]: Finished loading Gazebo ROS API Plugin.
SpawnModel script started
[ INFO] [1603700262.370003330]: waitForService: Service [/gazebo/
set_physics_properties] has not been advertised, waiting...
the rosdep view is empty: call 'sudo rosdep init' and 'rosdep update'
[ INFO] [1603700262.408658050]: Plugin debug_value initialized
[ INFO] [1603700262.408699443]: Plugin distance_sensor blacklisted
[ INFO] [1603700262.408809417]: Plugin esc_status loaded
[ INFO] [1603700262.413644282]: Plugin esc_status initialized
[ INFO] [1603700262.413817799]: Plugin fake_gps loaded
[ INFO] [1603700262.415799488]: Plugin 3dr_radio loaded
[ INFO] [1603700262.455540924]: Plugin 3dr_radio initialized
[ INFO] [1603700262.455682307]: Plugin actuator_control loaded
SpawnModel script started
[ INFO] [1603700262.493263570]: Plugin actuator_control initialized
[ INFO] [1603700262.503637041]: Plugin adsb loaded
[ INFO] [1603700262.562843814]: Plugin adsb initialized
[ INFO] [1603700262.563101630]: Plugin altitude loaded
[INFO] [1603700262.567333, 0.000000]: Loading model XML from ros parameter
[ INFO] [1603700262.571335720]: Plugin altitude initialized
[ INFO] [1603700262.571510889]: Plugin cam_imu_sync loaded
[ INFO] [1603700262.574843937]: Plugin cam_imu_sync initialized
[ INFO] [1603700262.575176192]: Plugin command loaded
[INFO] [1603700262.576874, 0.000000]: Waiting for service /gazebo/spawn_sdf_model
[ INFO] [1603700262.581108928]: FCU URL: udp://:14542@localhost:14582
[ INFO] [1603700262.585842098]: udp0: Bind address: 0.0.0.0:14542
[ INFO] [1603700262.585992879]: udp0: Remote address: 127.0.0.1:14582
[ INFO] [1603700262.586212475]: GCS bridge disabled
the rosdep view is empty: call 'sudo rosdep init' and 'rosdep update'
[ INFO] [1603700262.660606524]: Plugin 3dr_radio loaded
SpawnModel script started
[ INFO] [1603700262.694820143]: Plugin command initialized
[ INFO] [1603700262.695016587]: Plugin companion_process_status loaded
[ INFO] [1603700262.713130648]: Plugin 3dr_radio initialized
[ INFO] [1603700262.713242844]: Plugin actuator_control loaded
[INFO] [1603700262.731426, 0.000000]: Loading model XML from ros parameter
[INFO] [1603700262.742613, 0.000000]: Waiting for service /gazebo/spawn_sdf_model
[ INFO] [1603700262.743643752]: Plugin companion_process_status initialized
[ INFO] [1603700262.743788800]: Plugin debug_value loaded
[ INFO] [1603700262.747052283]: Plugin fake_gps initialized
[ INFO] [1603700262.747244441]: Plugin ftp loaded
[ INFO] [1603700262.748722358]: Plugin actuator_control initialized
[ INFO] [1603700262.753951439]: Plugin adsb loaded
[ INFO] [1603700262.764573486]: Plugin debug_value initialized
```

```
[ INFO] [1603700262.764622189]: Plugin distance_sensor blacklisted
[ INFO] [1603700262.764795187]: Plugin esc_status loaded
[ INFO] [1603700262.770967699]: Plugin esc_status initialized
[ INFO] [1603700262.771251366]: Plugin fake_gps loaded
[ INFO] [1603700262.775897672]: Plugin adsb initialized
[ INFO] [1603700262.776216051]: Plugin altitude loaded
[ INFO] [1603700262.781339209]: Plugin ftp initialized
[ INFO] [1603700262.781680410]: Plugin global_position loaded
[ INFO] [1603700262.784053571]: Plugin altitude initialized
[ INFO] [1603700262.784324100]: Plugin cam_imu_sync loaded
[ INFO] [1603700262.791751752]: Plugin cam_imu_sync initialized
[ INFO] [1603700262.792102434]: Plugin command loaded
[ INFO] [1603700262.850953735]: Plugin command initialized
[ INFO] [1603700262.851273558]: Plugin companion_process_status loaded
[INFO] [1603700262.883924, 0.000000]: Loading model XML from ros parameter
[ INFO] [1603700262.886641504]: Plugin companion_process_status initialized
[ INFO] [1603700262.886938991]: Plugin debug_value loaded
[INFO] [1603700262.900820, 0.000000]: Waiting for service /gazebo/spawn_sdf_model
[ INFO] [1603700262.943645859]: Plugin debug_value initialized
[ INFO] [1603700262.943732539]: Plugin distance_sensor blacklisted
[ INFO] [1603700262.943987591]: Plugin esc_status loaded
[ INFO] [1603700262.955451388]: Plugin esc_status initialized
[ INFO] [1603700262.955796735]: Plugin fake_gps loaded
[ INFO] [1603700262.981620930]: Plugin fake_gps initialized
[ INFO] [1603700262.981995813]: Plugin ftp loaded
[ INFO] [1603700262.983469108]: Plugin global_position initialized
[ INFO] [1603700262.983792530]: Plugin gps_rtk loaded
[ INFO] [1603700263.021585689]: Plugin gps_rtk initialized
[ INFO] [1603700263.021971478]: Plugin gps_status loaded
[ INFO] [1603700263.043491561]: Plugin gps_status initialized
[ INFO] [1603700263.043859026]: Plugin hil loaded
[ INFO] [1603700263.047792195]: Plugin ftp initialized
[ INFO] [1603700263.048181217]: Plugin global_position loaded
[ INFO] [1603700263.166324581]: Plugin fake_gps initialized
[ INFO] [1603700263.166725723]: Plugin ftp loaded
[ INFO] [1603700263.208793224]: Plugin hil initialized
[ INFO] [1603700263.209273315]: Plugin home_position loaded
[ INFO] [1603700263.244565689]: Plugin ftp initialized
[ INFO] [1603700263.244948788]: Plugin global_position loaded
[ INFO] [1603700263.254546094]: Plugin home_position initialized
[ INFO] [1603700263.254939567]: Plugin imu loaded
[ INFO] [1603700263.263964533]: Plugin global_position initialized
[ INFO] [1603700263.264311575]: Plugin gps_rtk loaded
[ INFO] [1603700263.301531197]: Plugin gps_rtk initialized
[ INFO] [1603700263.301895731]: Plugin gps_status loaded
[ INFO] [1603700263.324915610]: Plugin gps_status initialized
[ INFO] [1603700263.325352526]: Plugin hil loaded
[ INFO] [1603700263.345754734]: Plugin imu initialized
[ INFO] [1603700263.346107030]: Plugin landing_target loaded
[ INFO] [1603700263.454829057]: Plugin global_position initialized
[ INFO] [1603700263.455206922]: Plugin gps_rtk loaded
[ INFO] [1603700263.492397111]: Plugin gps_rtk initialized
[ INFO] [1603700263.492727194]: Plugin gps_status loaded
[ INFO] [1603700263.496041500]: Plugin hil initialized
[ INFO] [1603700263.496473249]: Plugin home_position loaded
[ INFO] [1603700263.520071964]: Plugin gps_status initialized
[ INFO] [1603700263.520582449]: Plugin hil loaded
[ INFO] [1603700263.544586103]: Plugin landing_target initialized
[ INFO] [1603700263.544978576]: Plugin local_position loaded
[ INFO] [1603700263.547656936]: Plugin home_position initialized
[ INFO] [1603700263.548202129]: Plugin imu loaded
[ INFO] [1603700263.627705195]: Plugin local_position initialized
```

```
[ INFO] [1603700263.628076170]: Plugin log_transfer loaded
[ INFO] [1603700263.642595185]: Plugin imu initialized
[ INFO] [1603700263.642979927]: Plugin landing_target loaded
[ INFO] [1603700263.656127796]: Plugin log_transfer initialized
[ INFO] [1603700263.656551222]: Plugin manual_control loaded
[ INFO] [1603700263.692124177]: Plugin hil initialized
[ INFO] [1603700263.692562465]: Plugin home_position loaded
[ INFO] [1603700263.694510078]: Plugin manual_control initialized
[ INFO] [1603700263.694882653]: Plugin mocap_pose_estimate loaded
[ INFO] [1603700263.735044695]: Plugin home_position initialized
[ INFO] [1603700263.735460497]: Plugin imu loaded
[ INFO] [1603700263.745429367]: Plugin mocap_pose_estimate initialized
[ INFO] [1603700263.745818864]: Plugin mount_control loaded
[ INFO] [1603700263.790701637]: Plugin mount_control initialized
[ INFO] [1603700263.791054441]: Plugin obstacle_distance loaded
[ INFO] [1603700263.827191285]: Plugin imu initialized
[ INFO] [1603700263.827543898]: Plugin landing_target loaded
[ INFO] [1603700263.829187085]: Plugin obstacle_distance initialized
[ INFO] [1603700263.829595287]: Plugin odom loaded
[ INFO] [1603700263.847501383]: Plugin landing_target initialized
[ INFO] [1603700263.847967092]: Plugin local_position loaded
[ INFO] [1603700263.887740192]: Plugin odom initialized
[ INFO] [1603700263.888123050]: Plugin onboard_computer_status loaded
[ INFO] [1603700263.919581613]: Plugin onboard_computer_status initialized
[ INFO] [1603700263.919994808]: Plugin param loaded
[ INFO] [1603700263.927888920]: Plugin local_position initialized
[ INFO] [1603700263.928272586]: Plugin log_transfer loaded
[ INFO] [1603700263.950354489]: Plugin param initialized
[ INFO] [1603700263.950710966]: Plugin play_tune loaded
[ INFO] [1603700263.958679888]: Plugin log_transfer initialized
[ INFO] [1603700263.959108914]: Plugin manual_control loaded
[ INFO] [1603700263.984393013]: Plugin play_tune initialized
[ INFO] [1603700263.984745401]: Plugin px4flow loaded
[ INFO] [1603700263.996927727]: Plugin manual_control initialized
[ INFO] [1603700263.997280423]: Plugin mocap_pose_estimate loaded
[ INFO] [1603700264.029974548]: Plugin landing_target initialized
[ INFO] [1603700264.030395818]: Plugin local_position loaded
[ INFO] [1603700264.050707640]: Plugin mocap_pose_estimate initialized
[ INFO] [1603700264.051096765]: Plugin mount_control loaded
[ INFO] [1603700264.073838691]: Plugin px4flow initialized
[ INFO] [1603700264.073928171]: Plugin rangefinder blacklisted
[ INFO] [1603700264.074314444]: Plugin rc_io loaded
[ INFO] [1603700264.094772101]: Plugin mount_control initialized
[ INFO] [1603700264.095136673]: Plugin obstacle_distance loaded
[ INFO] [1603700264.113030981]: Plugin local_position initialized
[ INFO] [1603700264.113348769]: Plugin log_transfer loaded
[ INFO] [1603700264.117895824]: Plugin rc_io initialized
[ INFO] [1603700264.117992024]: Plugin safety_area blacklisted
[ INFO] [1603700264.118381238]: Plugin setpoint_accel loaded
[ INFO] [1603700264.133714040]: Plugin obstacle_distance initialized
[ INFO] [1603700264.134069309]: Plugin odom loaded
[ INFO] [1603700264.148624200]: Plugin log_transfer initialized
[ INFO] [1603700264.149023106]: Plugin manual_control loaded
[ INFO] [1603700264.163657204]: Plugin setpoint_accel initialized
[ INFO] [1603700264.164091301]: Plugin setpoint_attitude loaded
[ INFO] [1603700264.185681446]: Plugin manual_control initialized
[ INFO] [1603700264.186038638]: Plugin mocap_pose_estimate loaded
[ INFO] [1603700264.191759969]: Plugin odom initialized
[ INFO] [1603700264.192140099]: Plugin onboard_computer_status loaded
[ INFO] [1603700264.219851203]: Plugin onboard_computer_status initialized
[ INFO] [1603700264.220267411]: Plugin param loaded
[ INFO] [1603700264.240658559]: Plugin mocap_pose_estimate initialized
```

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[ INFO] [1603700264.240997901]: Plugin mount_control loaded
[ INFO] [1603700264.251913053]: Plugin param initialized
[ INFO] [1603700264.252303162]: Plugin play_tune loaded
[ INFO] [1603700264.283962955]: Plugin mount_control initialized
[ INFO] [1603700264.284313744]: Plugin obstacle_distance loaded
[ INFO] [1603700264.287759430]: Plugin play_tune initialized
[ INFO] [1603700264.288126503]: Plugin px4flow loaded
[ INFO] [1603700264.288870725]: Plugin setpoint_attitude initialized
[ INFO] [1603700264.289280106]: Plugin setpoint_position loaded
[ INFO] [1603700264.322764607]: Plugin obstacle_distance initialized
[ INFO] [1603700264.323157144]: Plugin odom loaded
[ INFO] [1603700264.373840548]: Plugin px4flow initialized
[ INFO] [1603700264.373926024]: Plugin rangefinder blacklisted
[ INFO] [1603700264.374304942]: Plugin rc_io loaded
[ INFO] [1603700264.383546072]: Plugin odom initialized
[ INFO] [1603700264.383969126]: Plugin onboard_computer_status loaded
[ INFO] [1603700264.415988904]: Plugin onboard_computer_status initialized
[ INFO] [1603700264.416411637]: Plugin param loaded
[ INFO] [1603700264.416960007]: Plugin rc_io initialized
[ INFO] [1603700264.417070543]: Plugin safety_area blacklisted
[ INFO] [1603700264.417654618]: Plugin setpoint_accel loaded
[ INFO] [1603700264.446272767]: Plugin param initialized
[ INFO] [1603700264.446614261]: Plugin play_tune loaded
[ INFO] [1603700264.463309886]: Plugin setpoint_accel initialized
[ INFO] [1603700264.463734605]: Plugin setpoint_attitude loaded
[ INFO] [1603700264.479364426]: Plugin play_tune initialized
[ INFO] [1603700264.479712607]: Plugin px4flow loaded
[ INFO] [1603700264.502427405]: Plugin setpoint_position initialized
[ INFO] [1603700264.502835625]: Plugin setpoint_raw loaded
[ INFO] [1603700264.569216618]: Plugin px4flow initialized
[ INFO] [1603700264.569306396]: Plugin rangefinder blacklisted
[ INFO] [1603700264.569676956]: Plugin rc_io loaded
[ INFO] [1603700264.588615545]: Plugin setpoint_attitude initialized
[ INFO] [1603700264.589073281]: Plugin setpoint_position loaded
[ INFO] [1603700264.612393777]: Plugin setpoint_raw initialized
[ INFO] [1603700264.612803114]: Plugin setpoint_trajectory loaded
[ INFO] [1603700264.615370101]: Plugin rc_io initialized
[ INFO] [1603700264.615456815]: Plugin safety_area blacklisted
[ INFO] [1603700264.615840864]: Plugin setpoint_accel loaded
[ INFO] [1603700264.656890006]: Plugin setpoint_accel initialized
[ INFO] [1603700264.657393702]: Plugin setpoint_attitude loaded
[ INFO] [1603700264.668643742]: Plugin setpoint_trajectory initialized
[ INFO] [1603700264.669065938]: Plugin setpoint_velocity loaded
[ INFO] [1603700264.740210425]: Plugin setpoint_velocity initialized
[ INFO] [1603700264.740663052]: Plugin sys_status loaded
[ INFO] [1603700264.777390453]: Plugin setpoint_attitude initialized
[ INFO] [1603700264.777825931]: Plugin setpoint_position loaded
[ INFO] [1603700264.792712300]: Plugin setpoint_position initialized
[ INFO] [1603700264.793157643]: Plugin setpoint_raw loaded
[ INFO] [1603700264.858473132]: Plugin sys_status initialized
[ INFO] [1603700264.858872869]: Plugin sys_time loaded
[ INFO] [1603700264.896614907]: Plugin setpoint_raw initialized
[ INFO] [1603700264.897058197]: Plugin setpoint_trajectory loaded
[ INFO] [1603700264.931878242]: TM: Timesync mode: MAVLINK
[ INFO] [1603700264.941761070]: Plugin sys_time initialized
[ INFO] [1603700264.942225306]: Plugin trajectory loaded
[ INFO] [1603700264.951581225]: Plugin setpoint_trajectory initialized
[ INFO] [1603700264.952008947]: Plugin setpoint_velocity loaded
[ INFO] [1603700264.968381862]: Plugin setpoint_position initialized
[ INFO] [1603700264.968823553]: Plugin setpoint_raw loaded
[ INFO] [1603700265.005202966]: Plugin trajectory initialized
[ INFO] [1603700265.005716715]: Plugin vfr_hud loaded
```

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[ INFO] [1603700265.020897003]: Plugin vfr_hud initialized
[ INFO] [1603700265.020970068]: Plugin vibration blacklisted
[ INFO] [1603700265.021265402]: Plugin vision_pose_estimate loaded
[ INFO] [1603700265.043385404]: Plugin setpoint_velocity initialized
[ INFO] [1603700265.043851766]: Plugin sys_status loaded
[INFO] [1603700265.050782, 0.000000]: Calling service /gazebo/spawn_sdf_model
[INFO] [1603700265.064896, 0.000000]: Calling service /gazebo/spawn_sdf_model
[ INFO] [1603700265.134635269]: Plugin setpoint_raw initialized
[ INFO] [1603700265.135141467]: Plugin setpoint_trajectory loaded
[ INFO] [1603700265.173360732]: waitForService: Service [/gazebo/
set_physics_properties] is now available.
[ INFO] [1603700265.192145475]: Plugin vision_pose_estimate initialized
[ INFO] [1603700265.192537185]: Plugin vision_speed_estimate loaded
[ INFO] [1603700265.194156899]: waitForService: Service [/gazebo/
set_physics_properties] is now available.
[INFO] [1603700265.204318, 0.000000]: Calling service /gazebo/spawn_sdf_model
[ INFO] [1603700265.227609695]: Plugin setpoint_trajectory initialized
[ INFO] [1603700265.228026269]: Plugin setpoint_velocity loaded
[ INFO] [1603700265.239181524]: Plugin sys_status initialized
[ INFO] [1603700265.239616410]: Plugin sys_time loaded
[ INFO] [1603700265.279020336]: Plugin vision_speed_estimate initialized
[ INFO] [1603700265.279608457]: Plugin waypoint loaded
[ INFO] [1603700265.337930928]: Plugin setpoint_velocity initialized
[ INFO] [1603700265.338383443]: Plugin sys_status loaded
[ INFO] [1603700265.353892297]: TM: Timesync mode: MAVLINK
[ INFO] [1603700265.362025031]: Plugin waypoint initialized
[ INFO] [1603700265.362118594]: Plugin wheel_odometry blacklisted
[ INFO] [1603700265.362447705]: Plugin wind_estimation loaded
[ INFO] [1603700265.378365786]: Plugin wind_estimation initialized
[ INFO] [1603700265.378533006]: Autostarting mavlink via USB on PX4
[ INFO] [1603700265.378678789]: Built-in SIMD instructions: SSE, SSE2
[ INFO] [1603700265.378771690]: Built-in MAVLink package version: 2020.9.10
[ INFO] [1603700265.378904560]: Known MAVLink dialects: common ardupilotmega ASLUAV
all autoquad icarous matrixpilot paparazzi standard uAvionix ualberta
[ INFO] [1603700265.379004397]: MAVROS started. MY ID 1.240, TARGET ID 1.1
[ INFO] [1603700265.380499473]: Plugin sys_time initialized
[ INFO] [1603700265.380871882]: Plugin trajectory loaded
[ INFO] [1603700265.474282865, 0.004000000]: Plugin trajectory initialized
[ INFO] [1603700265.474772035, 0.004000000]: Plugin vfr_hud loaded
[ INFO] [1603700265.481001880, 0.004000000]: Plugin vfr_hud initialized
[ INFO] [1603700265.481093597, 0.004000000]: Plugin vibration blacklisted
[ INFO] [1603700265.481440090, 0.004000000]: Plugin vision_pose_estimate loaded
[ INFO] [1603700265.514572096, 0.004000000]: Plugin sys_status initialized
[ INFO] [1603700265.515016219, 0.004000000]: Plugin sys_time loaded
[ INFO] [1603700265.565748966, 0.004000000]: Plugin vision_pose_estimate initialized
[ INFO] [1603700265.566251542, 0.004000000]: Plugin vision_speed_estimate loaded
[ INFO] [1603700265.567510654, 0.004000000]: TM: Timesync mode: MAVLINK
[ INFO] [1603700265.574835422, 0.004000000]: Plugin sys_time initialized
[ INFO] [1603700265.575294029, 0.004000000]: Plugin trajectory loaded
[INFO] [1603700265.575422, 0.004000]: Spawn status: SpawnModel: Successfully spawned
entity
[ INFO] [1603700265.599653896, 0.004000000]: Plugin vision_speed_estimate initialized
[ INFO] [1603700265.600104375, 0.004000000]: Plugin waypoint loaded
[ INFO] [1603700265.616505563, 0.004000000]: Plugin trajectory initialized
[ INFO] [1603700265.617003131, 0.004000000]: Plugin vfr_hud loaded
[ INFO] [1603700265.620319249, 0.004000000]: Plugin vfr_hud initialized
[ INFO] [1603700265.620438772, 0.004000000]: Plugin vibration blacklisted
[ INFO] [1603700265.620777629, 0.004000000]: Plugin vision_pose_estimate loaded
INFO [simulator] Simulator connected on TCP port 4560.
[ INFO] [1603700265.634282388, 0.012000000]: Plugin waypoint initialized
[ INFO] [1603700265.634412126, 0.012000000]: Plugin wheel_odometry blacklisted
[ INFO] [1603700265.634920843, 0.012000000]: Plugin wind_estimation loaded
```

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[ INFO] [1603700265.637219854, 0.016000000]: Plugin wind_estimation initialized
[ INFO] [1603700265.637342477, 0.016000000]: Autostarting mavlink via USB on PX4
[ INFO] [1603700265.637481540, 0.016000000]: Built-in SIMD instructions: SSE, SSE2
[ INFO] [1603700265.637580090, 0.016000000]: Built-in MAVLink package version:
2020.9.10
[ INFO] [1603700265.637677017, 0.016000000]: Known MAVLink dialects: common
ardupilotmega ASLUAV all autoquad icarous matrixpilot paparazzi standard uAvionix
ualberta
[ INFO] [1603700265.637769686, 0.016000000]: MAVROS started. MY ID 1.240, TARGET ID
2.1
INFO [commander] LED: open /dev/led0 failed (22)
INFO [commander] Mission #2 loaded, 2 WPs, curr: 0
[ INFO] [1603700265.658246752, 0.036000000]: Plugin vision_pose_estimate initialized
[ INFO] [1603700265.658635606, 0.036000000]: Plugin vision_speed_estimate loaded
[ INFO] [1603700265.674403467, 0.052000000]: Plugin vision_speed_estimate initialized
[ INFO] [1603700265.674834659, 0.052000000]: Plugin waypoint loaded
[ INFO] [1603700265.693213924, 0.068000000]: Plugin waypoint initialized
[ INFO] [1603700265.693308679, 0.068000000]: Plugin wheel_odometry blacklisted
[ INFO] [1603700265.694149042, 0.072000000]: Plugin wind_estimation loaded
[ INFO] [1603700265.696157698, 0.072000000]: Plugin wind_estimation initialized
[ INFO] [1603700265.696243511, 0.072000000]: Autostarting mavlink via USB on PX4
[ INFO] [1603700265.696330187, 0.072000000]: Built-in SIMD instructions: SSE, SSE2
[ INFO] [1603700265.696422504, 0.072000000]: Built-in MAVLink package version:
2020.9.10
[ INFO] [1603700265.696541276, 0.072000000]: Known MAVLink dialects: common
ardupilotmega ASLUAV all autoquad icarous matrixpilot paparazzi standard uAvionix
ualberta
[ INFO] [1603700265.696625945, 0.072000000]: MAVROS started. MY ID 1.240, TARGET ID
3.1
INFO [init] Mixer: etc/mixers/quad_w.main.mix on /dev/pwm_output0
INFO [mavlink] mode: Normal, data rate: 4000000 B/s on udp port 18570 remote port
14550
[INFO] [1603700265.915227, 0.204000]: Spawn status: SpawnModel: Successfully spawned
entity
INFO [simulator] Simulator connected on TCP port 4562.
INFO [commander] LED: open /dev/led0 failed (22)
INFO [commander] Mission #3 loaded, 2 WPs, curr: 0
INFO [mavlink] mode: Onboard, data rate: 4000000 B/s on udp port 14580 remote port
14540
INFO [mavlink] mode: Onboard, data rate: 4000 B/s on udp port 14280 remote port 14030
INFO [init] Mixer: etc/mixers/quad_w.main.mix on /dev/pwm_output0
INFO [logger] logger started (mode=all)
INFO [logger] Start file log (type: full)
INFO [logger] [logger] ./log/2020-10-26/08_17_46.ulg
INFO [logger] Opened full log file: ./log/2020-10-26/08_17_46.ulg
INFO [mavlink] MAVLink only on localhost (set param MAV_BROADCAST = 1 to enable
network)
[ INFO] [1603700266.027966929, 0.316000000]: udp0: Remote address: 127.0.0.1:14580
[ INFO] [1603700266.028351318, 0.316000000]: IMU: High resolution IMU detected!
INFO [px4] Startup script returned successfully
INFO [mavlink] partner IP: 127.0.0.1
INFO [mavlink] mode: Normal, data rate: 4000000 B/s on udp port 18572 remote port
14550
INFO [mavlink] partner IP: 127.0.0.1
[uav2/vehicle_spawn_workstation_21515_4361103927045233431-11] process has finished
cleanly
log file: /home/workstation/.ros/log/b6805d4a-1763-11eb-b907-04d4c43987b4/uav2-
vehicle_spawn_workstation_21515_4361103927045233431-11*.log
[INFO] [1603700266.204321, 0.408000]: Spawn status: SpawnModel: Successfully spawned
entity
INFO [simulator] Simulator connected on TCP port 4561.
INFO [commander] LED: open /dev/led0 failed (22)
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INFO [commander] Mission #2 loaded, 2 WPs, curr: 0
INFO [mavlink] mode: Onboard, data rate: 4000000 B/s on udp port 14582 remote port
14542
[ INFO] [1603700266.266518046, 0.472000000]: Physics dynamic reconfigure ready.
[ INFO] [1603700266.267261878, 0.472000000]: Physics dynamic reconfigure ready.
INFO [mavlink] mode: Onboard, data rate: 4000 B/s on udp port 14282 remote port 14032
[uav0/vehicle_spawn_workstation_21515_403409581264068437-5] process has finished
cleanly
log file: /home/workstation/.ros/log/b6805d4a-1763-11eb-b907-04d4c43987b4/uav0-
vehicle_spawn_workstation_21515_403409581264068437-5*.log
INFO [init] Mixer: etc/mixers/quad_w.main.mix on /dev/pwm_output0
INFO [logger] logger started (mode=all)
INFO [logger] Start file log (type: full)
INFO [logger] [logger] ./log/2020-10-26/08_17_46.ulg
INFO [logger] Opened full log file: ./log/2020-10-26/08_17_46.ulg
INFO [mavlink] MAVLink only on localhost (set param MAV_BROADCAST = 1 to enable
network)
[ INFO] [1603700266.311452767, 0.516000000]: udp0: Remote address: 127.0.0.1:14582
[ INFO] [1603700266.311656537, 0.516000000]: IMU: High resolution IMU detected!
INFO [px4] Startup script returned successfully
INFO [mavlink] mode: Normal, data rate: 4000000 B/s on udp port 18571 remote port
14550
INFO [mavlink] partner IP: 127.0.0.1
INFO [mavlink] mode: Onboard, data rate: 4000000 B/s on udp port 14581 remote port
14541
[uav1/vehicle_spawn_workstation_21515_2982406644196666477-8] process has finished
cleanly
log file: /home/workstation/.ros/log/b6805d4a-1763-11eb-b907-04d4c43987b4/uav1-
vehicle_spawn_workstation_21515_2982406644196666477-8*.log
INFO [mavlink] mode: Onboard, data rate: 4000 B/s on udp port 14281 remote port 14031
INFO [logger] logger started (mode=all)
INFO [logger] Start file log (type: full)
INFO [logger] [logger] ./log/2020-10-26/08_17_46.ulg
INFO [logger] Opened full log file: ./log/2020-10-26/08_17_46.ulg
INFO [mavlink] MAVLink only on localhost (set param MAV_BROADCAST = 1 to enable
network)
[ INFO] [1603700266.525432764, 0.728000000]: udp0: Remote address: 127.0.0.1:14581
[ INFO] [1603700266.525755960, 0.728000000]: IMU: High resolution IMU detected!
INFO [px4] Startup script returned successfully
INFO [mavlink] partner IP: 127.0.0.1
INFO [mavlink] partner IP: 127.0.0.1
INFO [mavlink] partner IP: 127.0.0.1
[ INFO] [1603700267.064206631, 1.260000000]: CON: Got HEARTBEAT, connected. FCU: PX4
Autopilot
[ INFO] [1603700267.080191904, 1.276000000]: IMU: High resolution IMU detected!
[ INFO] [1603700267.268453053, 1.464000000]: CON: Got HEARTBEAT, connected. FCU: PX4
Autopilot
[ INFO] [1603700267.280412351, 1.476000000]: IMU: High resolution IMU detected!
INFO [ecl/EKF] 1424000: GPS checks passed
INFO [ecl/EKF] 1204000: GPS checks passed
[ INFO] [1603700267.476557945, 1.672000000]: CON: Got HEARTBEAT, connected. FCU: PX4
Autopilot
[ INFO] [1603700267.492469119, 1.688000000]: IMU: High resolution IMU detected!
INFO [ecl/EKF] 1428000: GPS checks passed
[ INFO] [1603700268.077234470, 2.272000000]: WP: Using MISSION_ITEM_INT
[ INFO] [1603700268.077379514, 2.272000000]: VER: 1.1: Capabilities
0x00000000000000e4ef
[ INFO] [1603700268.077513248, 2.272000000]: VER: 1.1: Flight software: 010b0000
(d19b54481a000000)
[ INFO] [1603700268.077586405, 2.272000000]: VER: 1.1: Middleware software: 010b0000
(d19b54481a000000)
[ INFO] [1603700268.077656727, 2.272000000]: VER: 1.1: OS software: 040f00ff
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(0000000000000000)
[ INFO] [1603700268.077723173, 2.272000000]: VER: 1.1: Board hardware:      00000001
[ INFO] [1603700268.077828365, 2.272000000]: VER: 1.1: VID/PID:          0000:0000
[ INFO] [1603700268.077922139, 2.272000000]: VER: 1.1: UID:
4954414c44494e4f
[ INFO] [1603700268.281982211, 2.476000000]: WP: Using MISSION_ITEM_INT
[ INFO] [1603700268.282127790, 2.476000000]: VER: 3.1: Capabilities
0x0000000000000e4ef
[ INFO] [1603700268.282238978, 2.476000000]: VER: 3.1: Flight software:    010b0000
(d19b54481a000000)
[ INFO] [1603700268.282319279, 2.476000000]: VER: 3.1: Middleware software: 010b0000
(d19b54481a000000)
[ INFO] [1603700268.282381541, 2.476000000]: VER: 3.1: OS software:        040f00ff
(0000000000000000)
[ INFO] [1603700268.282446758, 2.476000000]: VER: 3.1: Board hardware:    00000001
[ INFO] [1603700268.282543145, 2.476000000]: VER: 3.1: VID/PID:          0000:0000
[ INFO] [1603700268.282624207, 2.476000000]: VER: 3.1: UID:
4954414c44494e51
[ INFO] [1603700268.490278224, 2.684000000]: WP: Using MISSION_ITEM_INT
[ INFO] [1603700268.490413261, 2.684000000]: VER: 2.1: Capabilities
0x0000000000000e4ef
[ INFO] [1603700268.490522082, 2.684000000]: VER: 2.1: Flight software:    010b0000
(d19b54481a000000)
[ INFO] [1603700268.490611190, 2.684000000]: VER: 2.1: Middleware software: 010b0000
(d19b54481a000000)
[ INFO] [1603700268.490683140, 2.684000000]: VER: 2.1: OS software:        040f00ff
(0000000000000000)
[ INFO] [1603700268.490784962, 2.684000000]: VER: 2.1: Board hardware:    00000001
[ INFO] [1603700268.490851279, 2.684000000]: VER: 2.1: VID/PID:          0000:0000
[ INFO] [1603700268.490936541, 2.684000000]: VER: 2.1: UID:
4954414c44494e50
INFO [ecl/EKF] 3004000: reset position to last known position
INFO [ecl/EKF] 3004000: reset velocity to zero
INFO [ecl/EKF] 3120000: reset position to last known position
INFO [ecl/EKF] 3120000: reset velocity to zero
INFO [ecl/EKF] 3116000: reset position to last known position
INFO [ecl/EKF] 3116000: reset velocity to zero
INFO [ecl/EKF] 9312000: EKF aligned, (baro hgt, IMU buf: 18, OBS buf: 14)
[ INFO] [1603700275.312504149, 9.496000000]: IMU: Attitude quaternion IMU detected!
INFO [ecl/EKF] 9484000: reset position to GPS
INFO [ecl/EKF] 9484000: reset velocity to GPS
INFO [ecl/EKF] 9484000: starting GPS fusion
INFO [ecl/EKF] 9432000: EKF aligned, (baro hgt, IMU buf: 18, OBS buf: 14)
[ INFO] [1603700275.628791192, 9.812000000]: IMU: Attitude quaternion IMU detected!
INFO [ecl/EKF] 9428000: EKF aligned, (baro hgt, IMU buf: 18, OBS buf: 14)
[ INFO] [1603700275.832790782, 10.016000000]: IMU: Attitude quaternion IMU detected!
INFO [ecl/EKF] 9680000: reset position to GPS
INFO [ecl/EKF] 9680000: reset velocity to GPS
INFO [ecl/EKF] 9680000: starting GPS fusion
INFO [ecl/EKF] 9488000: reset position to GPS
INFO [ecl/EKF] 9488000: reset velocity to GPS
INFO [ecl/EKF] 9488000: starting GPS fusion
INFO [tone_alarm] home set
INFO [tone_alarm] notify neutral
INFO [tone_alarm] notify neutral
INFO [tone_alarm] home set
INFO [tone_alarm] home set
INFO [tone_alarm] notify neutral
INFO [tone_alarm] notify neutral
INFO [tone_alarm] notify neutral
INFO [tone_alarm] notify neutral
[ INFO] [1603700282.086002508, 16.260000000]: WP: item #0* F: C: 22 p: 15 0 0 nan x:
```

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351431549 y: 1269257686 z: 10
[ INFO] [1603700282.086327143, 16.260000000]: WP: item #1 F:[] C: 16 p: 0 0 0 nan x:
351430015 y: 1269259808 z: 10
[ INFO] [1603700282.086473665, 16.260000000]: WP: mission received
[ INFO] [1603700282.290141028, 16.464000000]: WP: item #0* F:[] C: 22 p: 15 0 0 nan x:
351431656 y: 1269257660 z: 10
[ INFO] [1603700282.290540199, 16.464000000]: WP: item #1 F:[] C: 16 p: 0 0 0 nan x:
351426811 y: 1269257889 z: 10
[ INFO] [1603700282.290658340, 16.464000000]: WP: mission received
[ INFO] [1603700282.498473533, 16.672000000]: WP: item #0* F:[] C: 22 p: 15 0 0 nan x:
351431549 y: 1269257686 z: 10
[ INFO] [1603700282.498782808, 16.672000000]: WP: item #1 F:[] C: 16 p: 0 0 0 nan x:
351430015 y: 1269259808 z: 10
[ INFO] [1603700282.498902406, 16.672000000]: WP: mission received
```