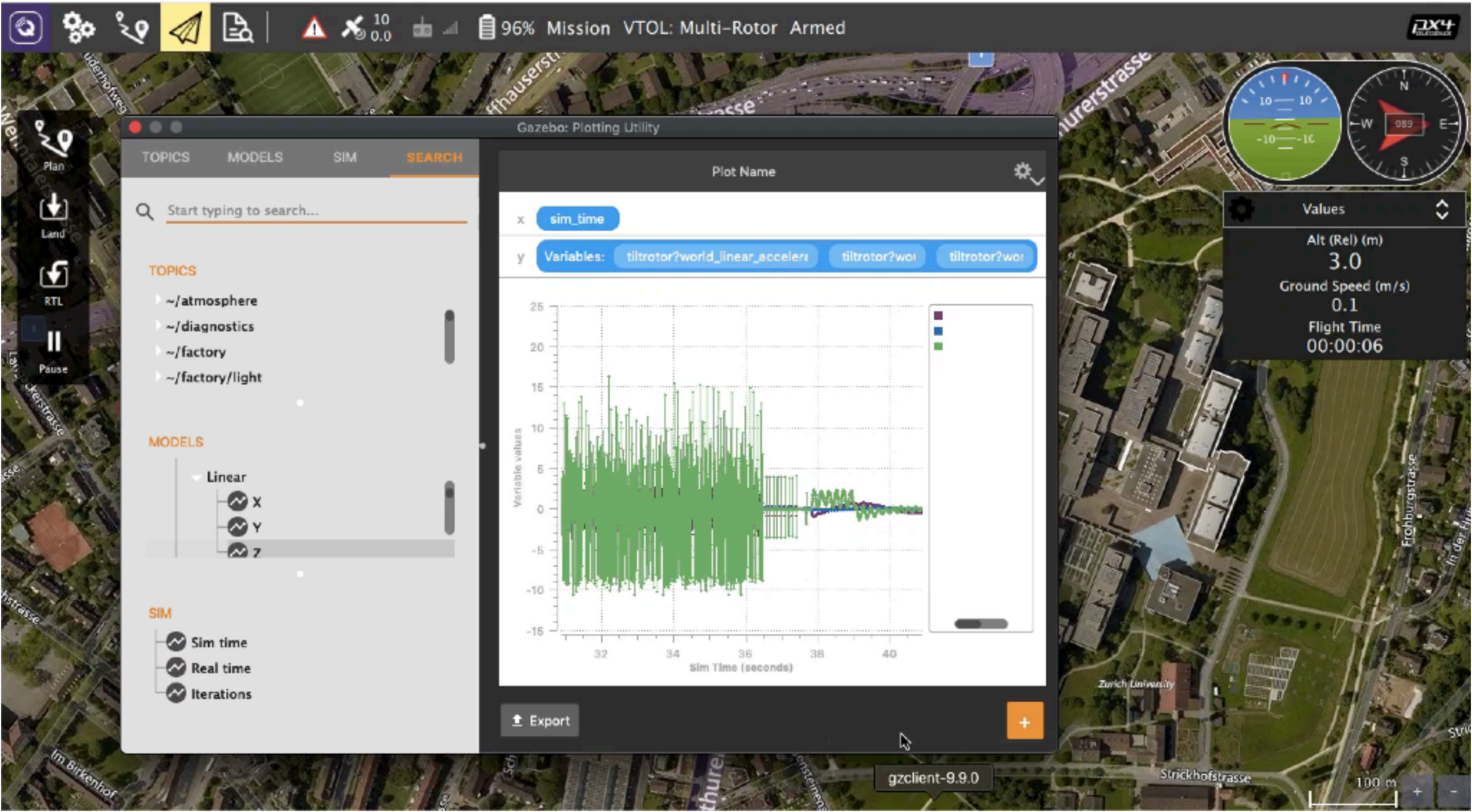
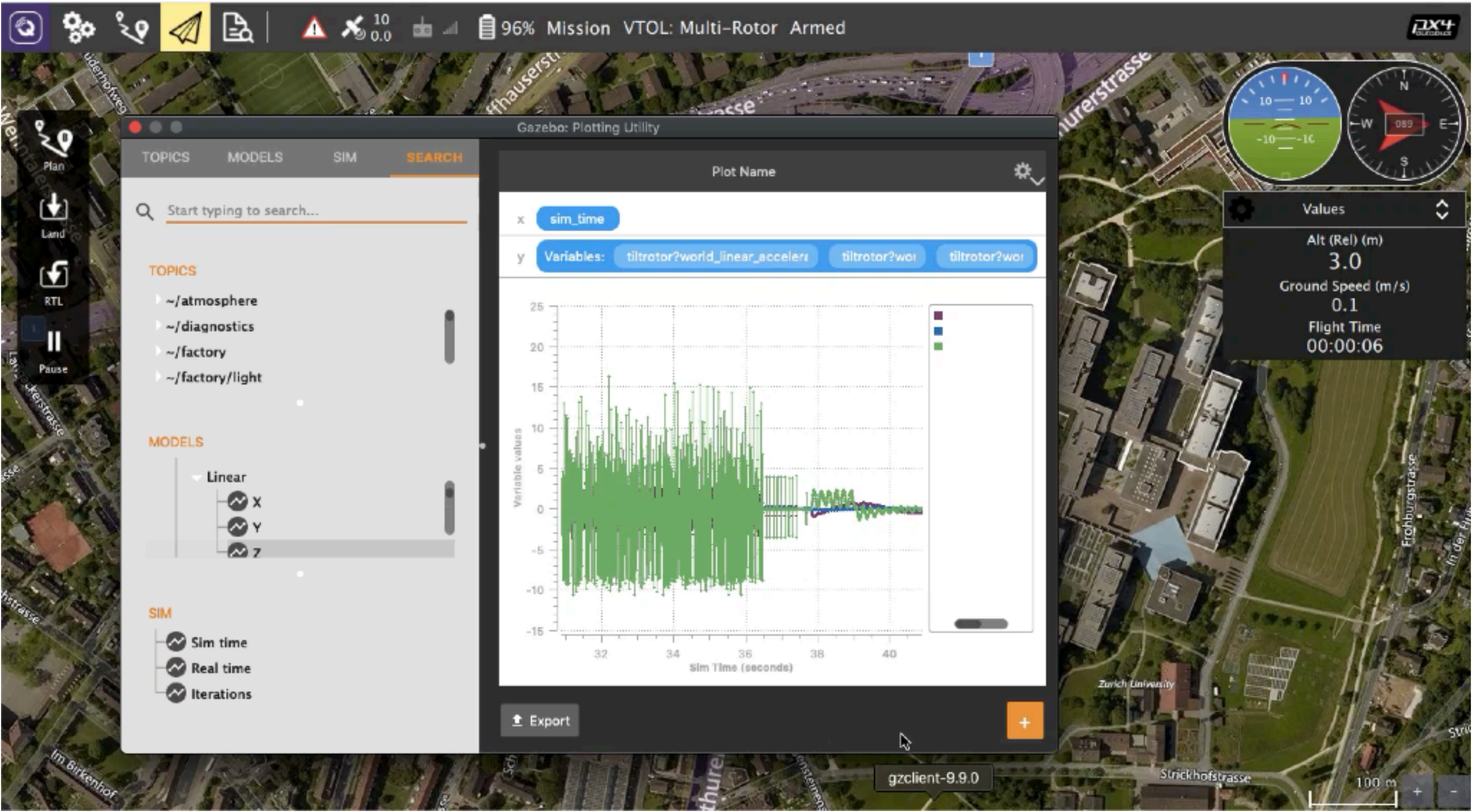

96% Mission VTOL: Multi-Rotor Armed
Gazebo: Plotting Utility
TOPICS
MODELS
SIM
SEARCH
Start typing to search...
TOPICS
~/atmosphere
~/diagnostics
~/factory
~/factory/light
MODELS
Linear
X
Y
Z
SIM
Sim time
Real time
Iterations
Plot Name
x
sim_time
y
Variables:
tiltrotor?world_linear_accelera
tiltrotor?wo
tiltrotor?wo
Variable values
Sim Time (seconds)
Export
Plan
Land
RTL
Pause
Values
Alt (Rel) (m)
3.0
Ground Speed (m/s)
0.1
Flight Time
00:00:06
gzclient-9.9.0
Zurich University
Strickhofstrasse
Frohburgstrasse
100 m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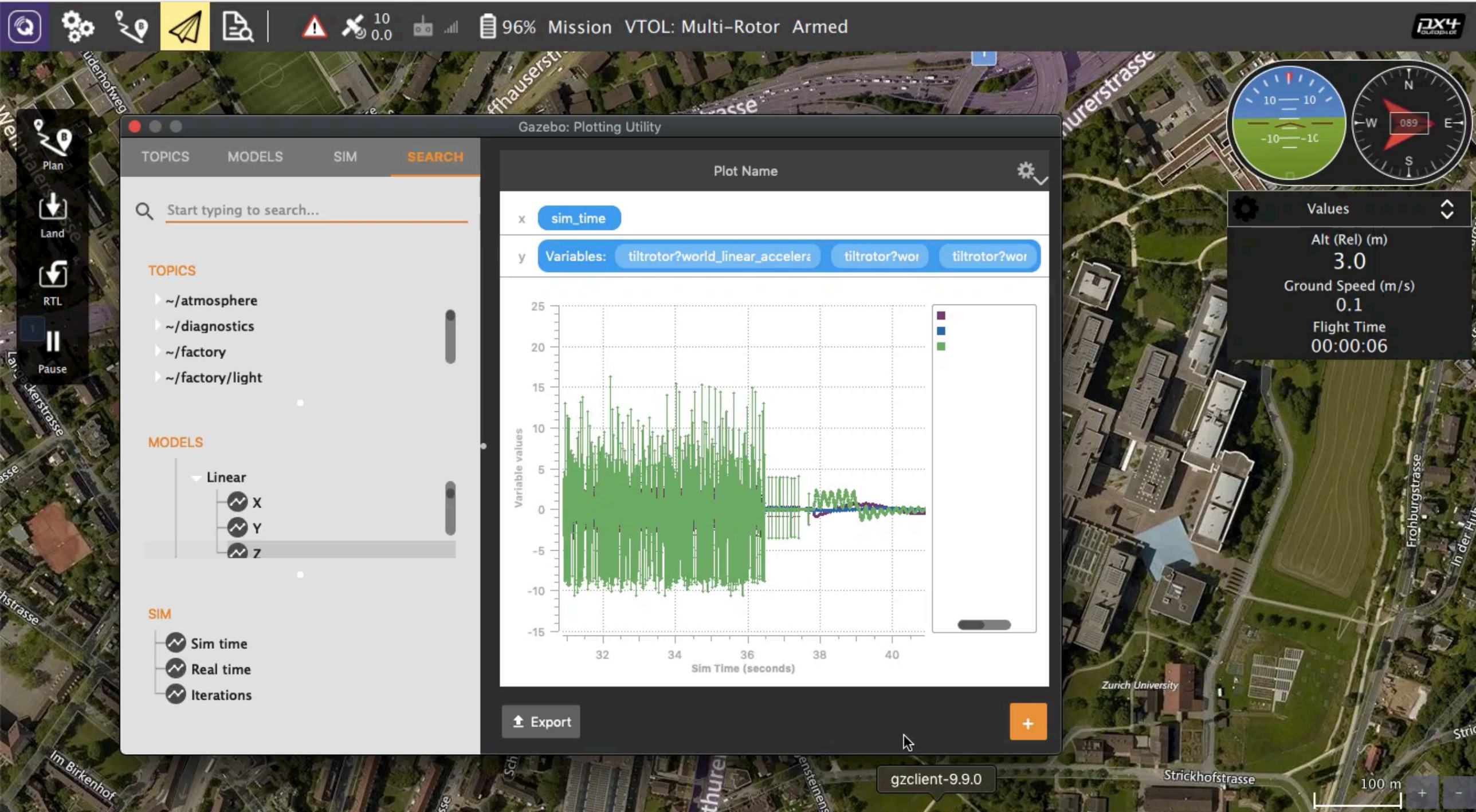
Strickhofstrasse
Frohburgstrasse
100 m


96% Mission VTOL: Multi-Rotor Armed
Plan
Land
RTL
Pause
Gazebo: Plotting Utility
TOPICS
MODELS
SIM
SEARCH
Start typing to search...
TOPICS
~/atmosphere
~/diagnostics
~/factory
~/factory/light
MODELS
Linear
X
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Sim time
Real time
Iterations
Plot Name
x
sim_time
y
Variables:
tiltrotor?world_linear_accelera
tiltrotor?wor
tiltrotor?wor
Variable values
Sim Time (seconds)
Export
Values
Alt (Rel) (m)
3.0
Ground Speed (m/s)
0.1
Flight Time
00:00:06
gzclient-9.9.0
Zurich University
Strickhofstrasse
Frohburgstrasse
100 m

96% Mission VTOL: Multi-Rotor Armed

Gazebo: Plotting Utility

TOPICS MODELS SIM SEARCH

Start typing to search...

TOPICS

~/atmosphere

~/diagnostics

~/factory

~/factory/light

MODELS

Linear

X

Y

Z

SIM

Sim time

Real time

Iterations

Plot Name

x sim_time

y Variables: tiltrotor?world_linear_accelera tiltrotor?wor tiltrotor?wor

Variable values

Sim Time (seconds)

Export

Values

Alt (Rel) (m)

3.0

Ground Speed (m/s)

0.1

Flight Time

00:00:06

Plan

Land

RTL

Pause

gzclient-9.9.0

Zurich University

Strickhofstrasse

Frohburgstrasse

100 m

- **Commodity sensors are error prone and and subject to latency many times In such case, the drone can be subject to blind flights or inaccuracies in understanding crucial information about its environment.**
  - Using OnBoard Computer Vision opens up exciting new possibilities. The drone can control its pitch and yaw even when sensor fails. This is achieved using Horizon Detection techniques in Computer Vision. Also, an onboard camera allows to gain more detailed view of the flight.
- **Optimal path planning is a challenge when considering deliveries. Depending on the nature of payload, the path need to consider factors such as weather, available power to calculate minimum cost paths in terms of power, turbulence, etc.**
  - A hybrid path panning module would allow to use different types of heuristics depending upon the type of delivery, weather conditions, turbulence limits, battery limits, number of hops, etc. Genetic Algorithm along with these heuristics would ensure quick on board path planning for each consignment.