

# Extract all the topics of interest from ROSBAG

% requirements -

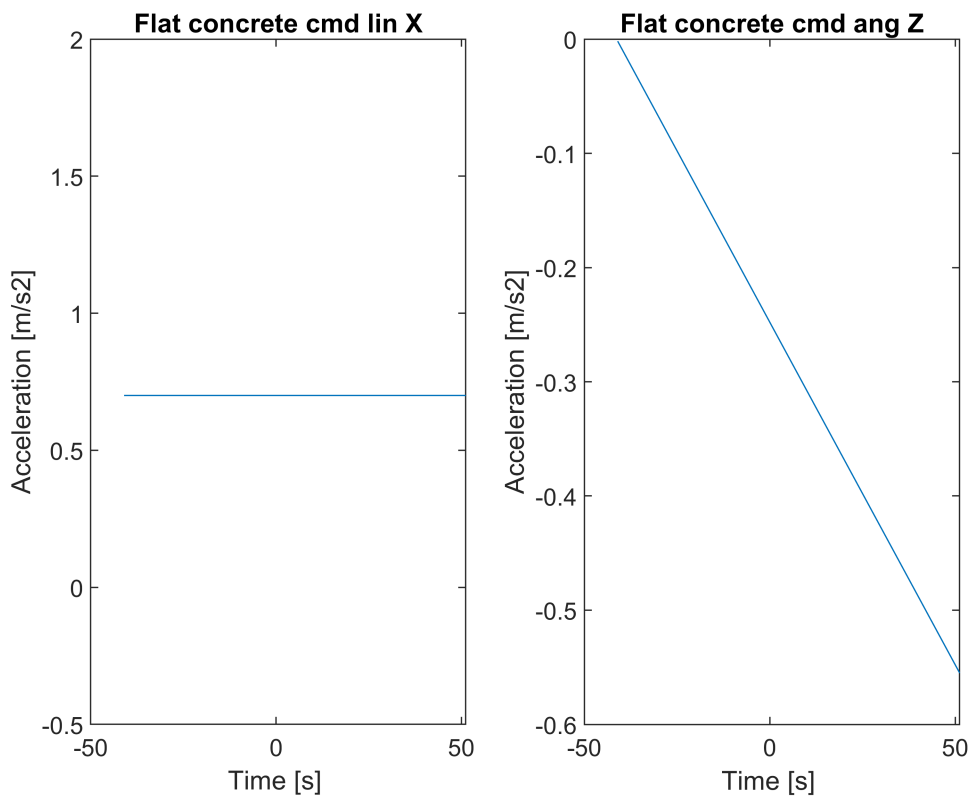
ROS toolbox

Mapping toolbox

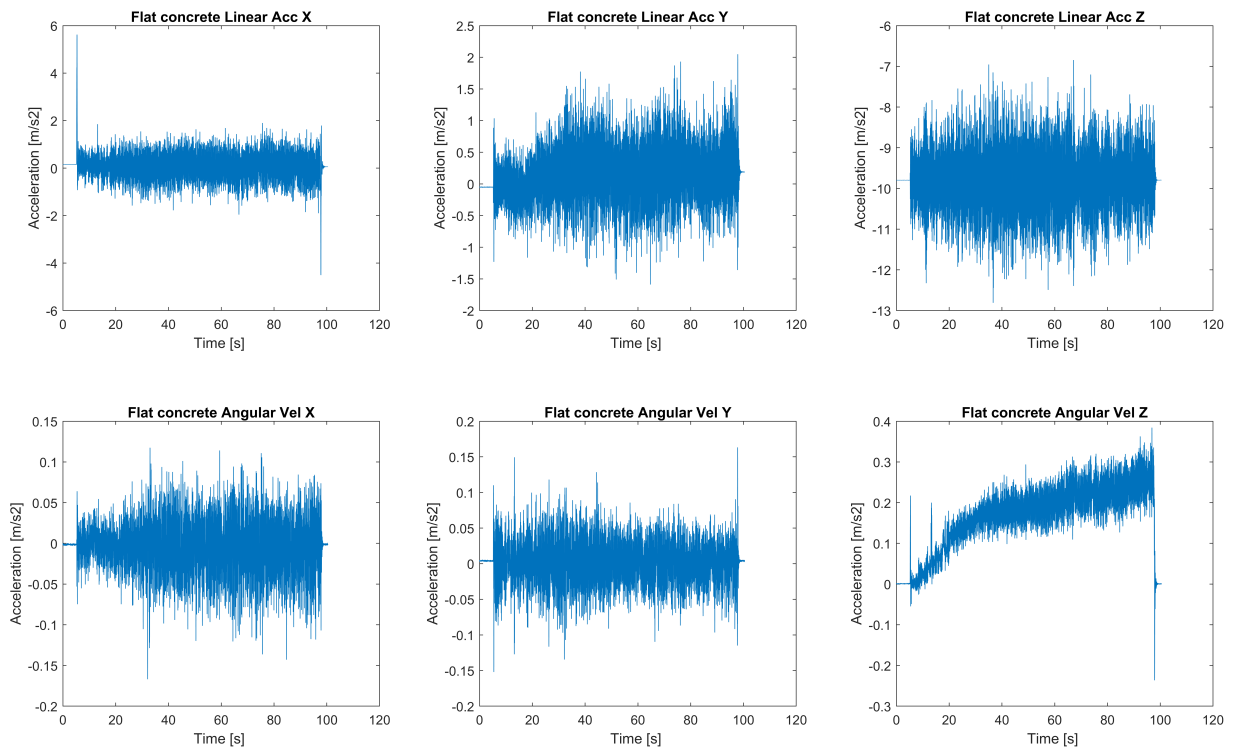
rosbagReader.m script in same location as this file

Warning: No Header found for topic /husky\_velocity\_controller/cmd\_vel. RelTime may be inaccurate

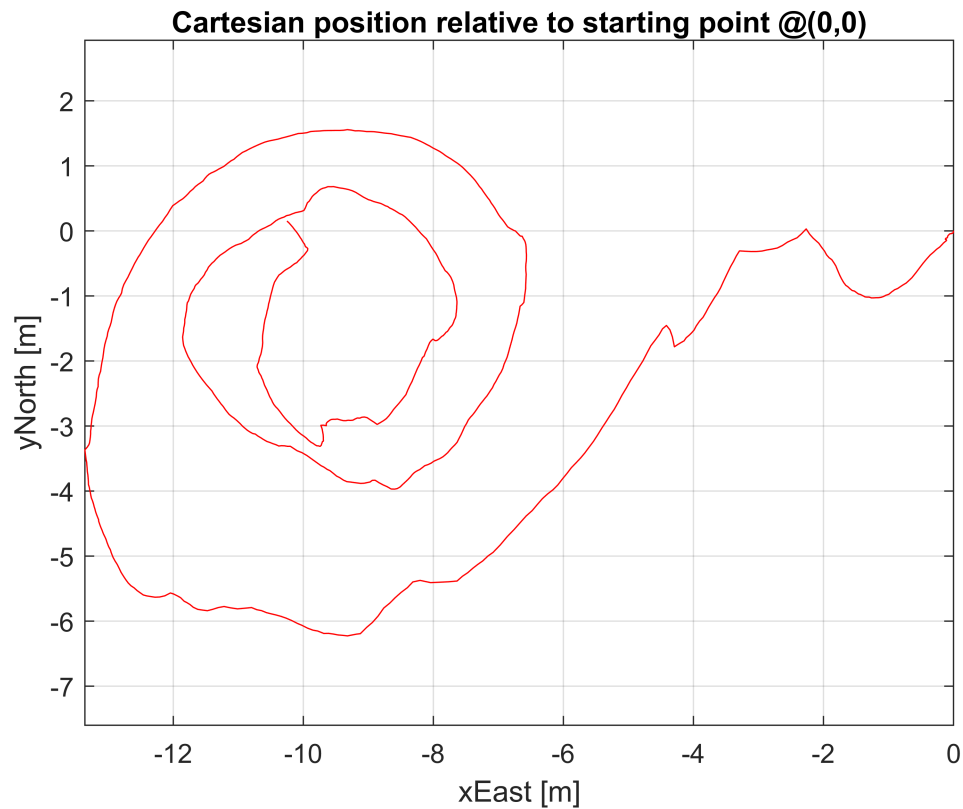
## INPUT : Command Velocity



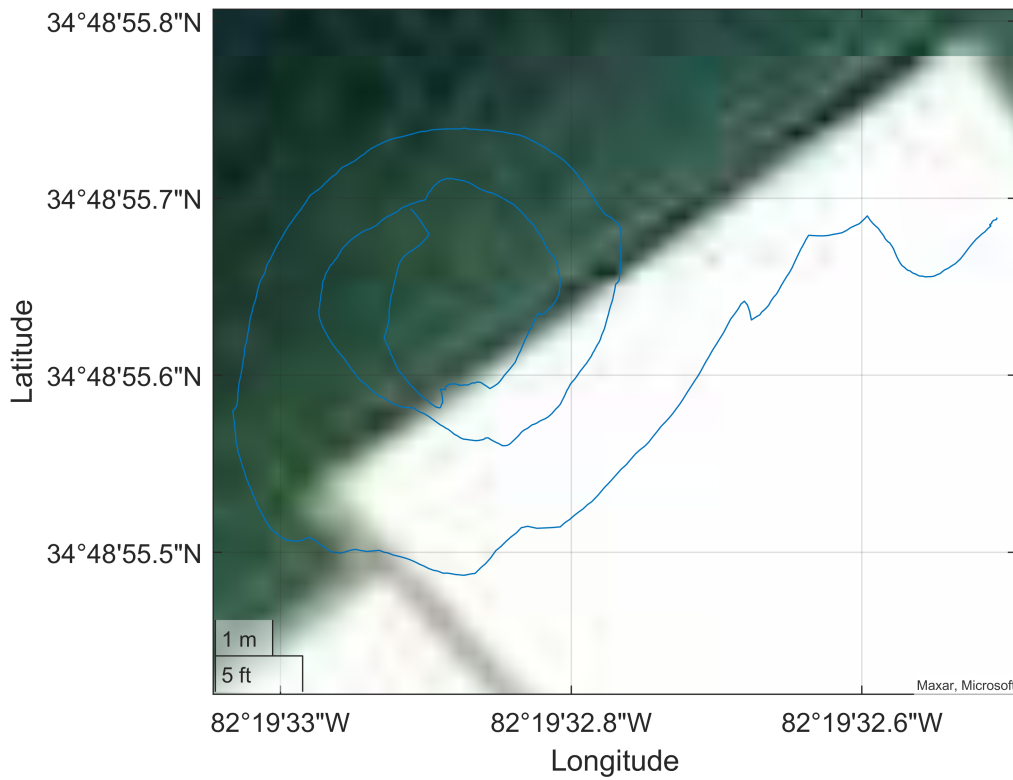
## Realized IMU Data



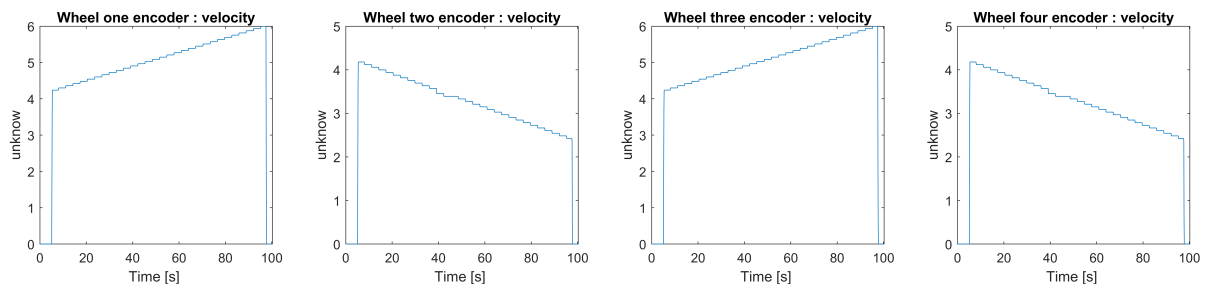
**Convert the GPS data to ENU-Carthesian coordinate frame**



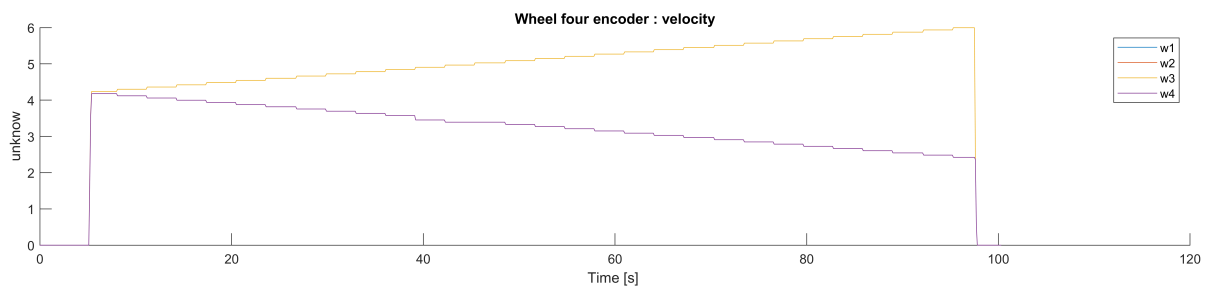
## Lat long GPS

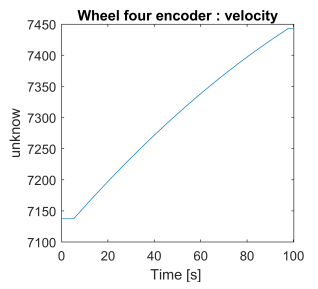
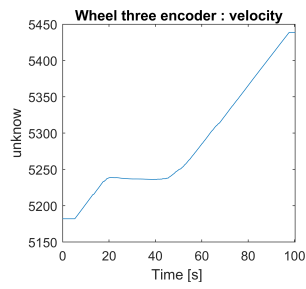
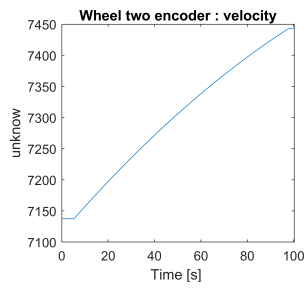
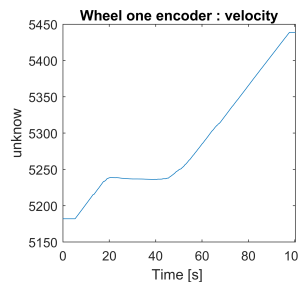
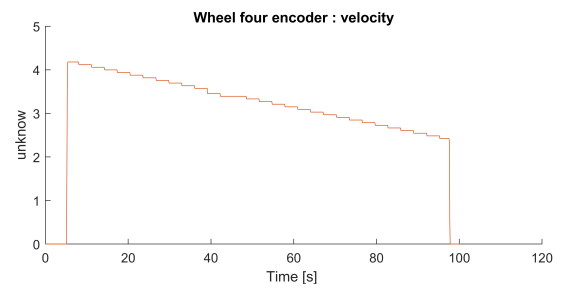
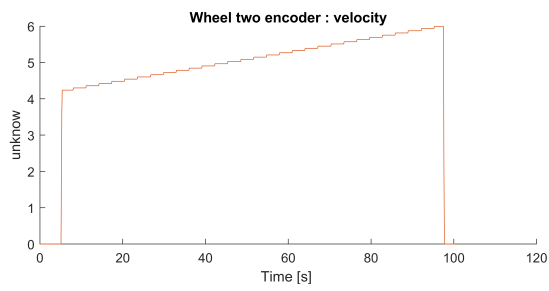


## Wheel Encoder data processing



Two wheels on the same side are expected to have similar wheel velocities. Overlaying all the values on top of each other will help us identify those wheels





**Difference in the left wheel encoder values**      **Difference in the right wheel encoder values**

