To be Included:

* Kinematics and Dynamics- full pose and odometry
  + Commanded vs actual
* IMU data and SLAM metrics
  + IMU data vs trajectory deviations
  + Loop closures, localisation errors, mapping consistency
  + Camera depth stream quality data (point cloud density, noise levels)
* Time synchronisation and latency
  + Sensor readings, APF Forces, motor commands timestamped for correllation
  + Measure processing and actuation delays for performance analysis
* Algorithmic Performance
  + Performance of the APF navigation node (oscillatory behaviour and navigation speeds)
  + Record computational loads and response times
* Environmental and Interaction Factors
  + Dynamic vs static obstacles, lighting conditions, surface textures
  + Consider walking speed and reaction times correllation to APF forces
* Safety and reliability metrics
  + Near miss events/ collisions
  + Recovery or fallback behaviours

Recording and visualisation:

* Data recording: ROS bag files can record all topics in synchronisation:
  + Pose, sensor data, APF forces, motor commands.
  + Custom Logging: bag files with custom CSV logs to include minimum distances, aggregated force values
  + Video Synchronisation: Record synchronised video streams for qualitative evidence with the quantitative evidence
* Data visualisation:
  + Rviz (or rtabmap?) for realtime 3D viz, custom markers for trajectories, obstacles and force vectors.
  + Post Processing:
    - Matplotlib, seaborn, plotly, MATLAB
    - Time-series graphs for force and distances
    - Trajectory overlays on environmental maps
    - Heatmaps showing areas of high APF force interaction
    - Interactive dashboards like ROS web to interactively explore the data and generate dynamic visual reports