Week_7 Navigation 디버깅

<u>오류 원본</u>

- WARN1

  - [rviz2-2] Warning: Ignoring XDG_SESSION_TYPE=wayland on Gnome. Use QT_QPA_PLATFORM=wayland to run on Wayland anyway.

  - QT 관련된 오류로 원인이 아닐 것으로 추정

- ERROR1

  - [component_container_isolated-1] [INFO] [1692257730.170687153] [amcl]: Subscribed to map topic.
    [component_container_isolated-1] [ERROR] [1692257730.207452256] []: Caught exception in callback for transition 10
    [component_container_isolated-1] [ERROR] [1692257730.207475541] []: Original error: According to the loaded plugin descriptions the class differential with base class type nav2_amcl::MotionModel does not exist. Declared types are nav2_amcl::DifferentialMotionModel nav2_amcl::OmniMotionModel
    [component_container_isolated-1] [WARN] [1692257730.207497168] []: Error occurred while doing error handling.
    [component_container_isolated-1] [FATAL] [1692257730.207508033] [amcl]: Lifecycle node amcl does not have error state implemented
    [component_container_isolated-1] [WARN] [1692257730.207645067] [amcl]: New subscription discovered on topic '/particle_cloud', requesting incompatible QoS. No messages will be sent to it. Last incompatible policy:

RELIABILITY_QOS_POLICY

[component_container_isolated-1] [ERROR] [1692257730.207820477] [lifecycle_manager_localization]: Failed to change state for node: amcl [component_container_isolated-1] [ERROR] [1692257730.207845639] [lifecycle_manager_localization]: Failed to bring up all requested nodes. Aborting bringup.

- AMCL (Adaptive Monte Carlo Localization) 을 불러오는데 실패함

  - (로봇의 위치를 추정하고 보정하기 위해 사용되는 알고리즘)

  - (Gazebo를 실행하는데 실패한 내용이지만) 관련 문서: https://github.com/ROBOTIS-GIT/turtlebot3/issues/884

  - (Isaac sim에서 발생한 같은 문제) 관련 문서: https://forums.developer.nvidia.com/t/isaac-2022-2-0-humble-navigation-error/242775

https://github.com/ROBOTIS-GIT/turtlebot3/tree/master/turtlebot3_navigation의 turtlebot3_navigation 패키지의 .yaml 파일의 robot_model_type 값을 찾아보았지만 찾을 수 없었음

robot_model_type 값이 들어있는 .yaml 파일만 알 수 있다면 오류를 해결해볼 수 있음

- 오류3

  - **[rviz2-2] [WARN] [1692257730.629549545] [rcl.logging_rosout]: Publisher already registered for provided node name. If this is due to multiple nodes with the same name then all logs for that logger name will go out over the existing publisher. As soon as any node with that name is destructed it will unregister the publisher, preventing any further logs for that name from being published on the rosout topic.**

- 오류4

  - [component_container_isolated-1] [INFO] [1692257735.717788231] [global_costmap.global_costmap]: Timed out waiting for transform from base_link to map to become available, tf error: **Invalid frame ID "map"** passed to canTransform argument target_frame - frame does not exist
  [rviz2-2] [INFO] [1692257735.821190716] [rviz2]: Message Filter dropping message: frame 'base_scan' at time 1692257733.800 for reason 'discarding message because the queue is full'
  [rviz2-2] [INFO] [1692257736.013342008] [rviz2]: Message Filter dropping message: frame 'base_scan' at time 1692257734.001 for reason 'discarding message because the queue is full'
  [rviz2-2] [INFO] [1692257736.205877170] [rviz2]: Message Filter dropping message: frame 'base_scan' at time 1692257734.202 for reason 'discarding message because the queue is full'
  [component_container_isolated-1] [INFO] [1692257736.217934052] [global_costmap.global_costmap]: Timed out waiting for transform from base_link to map to become available, tf error: Invalid frame ID "map" passed to canTransform argument target_frame - frame does not exist

'base_scan' , 'odom' discarding message 부분이 계속 무한 반복실행됨

- ros2 패키지 조회

```
nav2_planner
nav2_regulated_pure_pursuit_controller
nav2_rotation_shim_controller
nav2_rviz_plugins
nav2_simple_commander
```