

Week 3 Homework – Autoware Stack Install and Planning Simulation

1. In your own words, explain what role Autoware plays in the MKZ autonomous research vehicle. Why is it described as “middleware” between ROS2 and the vehicle’s ADAS sensors?

2. Fill in the blank:
To source the Autoware workspace automatically, the module tells you to open the file `~/bashrc` with the command _____ and then add a line that sources the file _____/install/setup.bash. (Fill in the command and a generic path.)

3. Fill in the blank:
Before launching the planning simulator, you are asked to check for an `autoware_data` folder and confirm that several perception-related packages (e.g., `image_projection_based_fusion`, `tensorRT_yolo`, etc.) are present.
 - These packages come from the _____ library.
 - If they are missing, the module tells you to go back and rerun which step in the installation process? (Describe it in one sentence.)

4. After working through both modules, summarize in 3–5 sentences how these two activities—(1) installing Autoware from source and (2) running the planning simulator—fit into the overall goal of making the Lincoln MKZ drive autonomously.