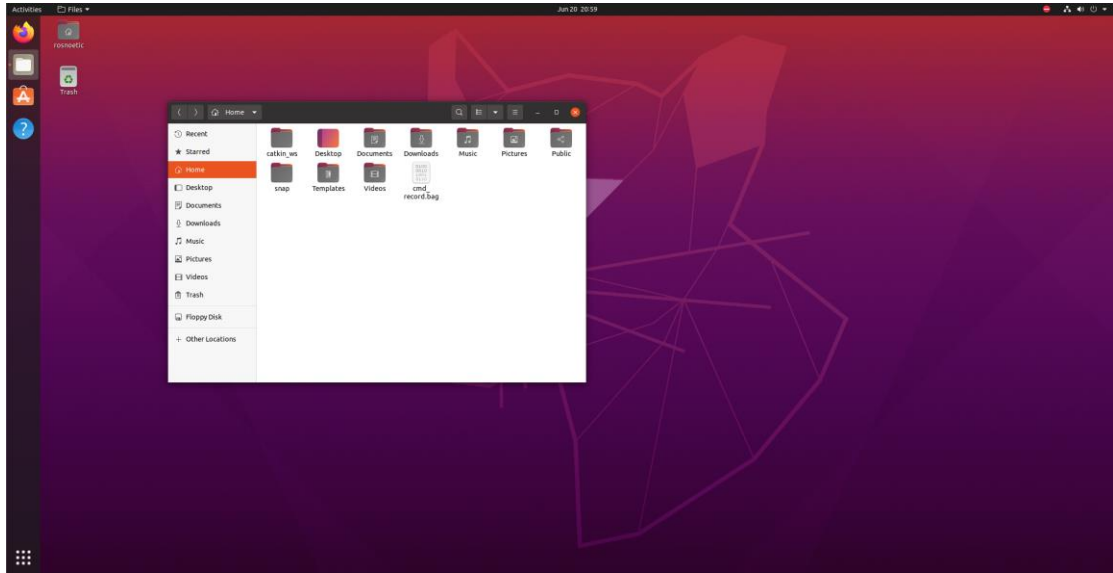


1. Set up the basic environment

- Operating System: Ubuntu 20.04 LTS
- Framework Platform: ROS1 Noetic
- Simulation Platform: Gazebo



2. Follow ROS21 talk

Using ROS command line tools, creating workspaces and packages, and implementing key communication patterns such as publishers and subscribers.

Using topic messages, implementing clients and servers, and managing service data. Programming parameters, coordinate system management, broadcasting and listening to tf coordinate frames, using launch files, and utilizing common visualization tools.