Robot Operating System (ROS) has gained a rapid spread that cannot be overlooked in the robotics programming in less than a decade. This success of ROS is of course based on its functionalities and features. In ITU Robotics Laboratory, the advantages of ROS are noticed and many systems are migrated to ROS. There are two mobile robots named ITU-AGVs in the laboratory that were built before ROS and it is needed to maintain these robots and develop base applications on the ROS framework that would be used for complex applications in the future projects. This project contains the development of embedded software that will be communicable for ROS and creating ROS applications.