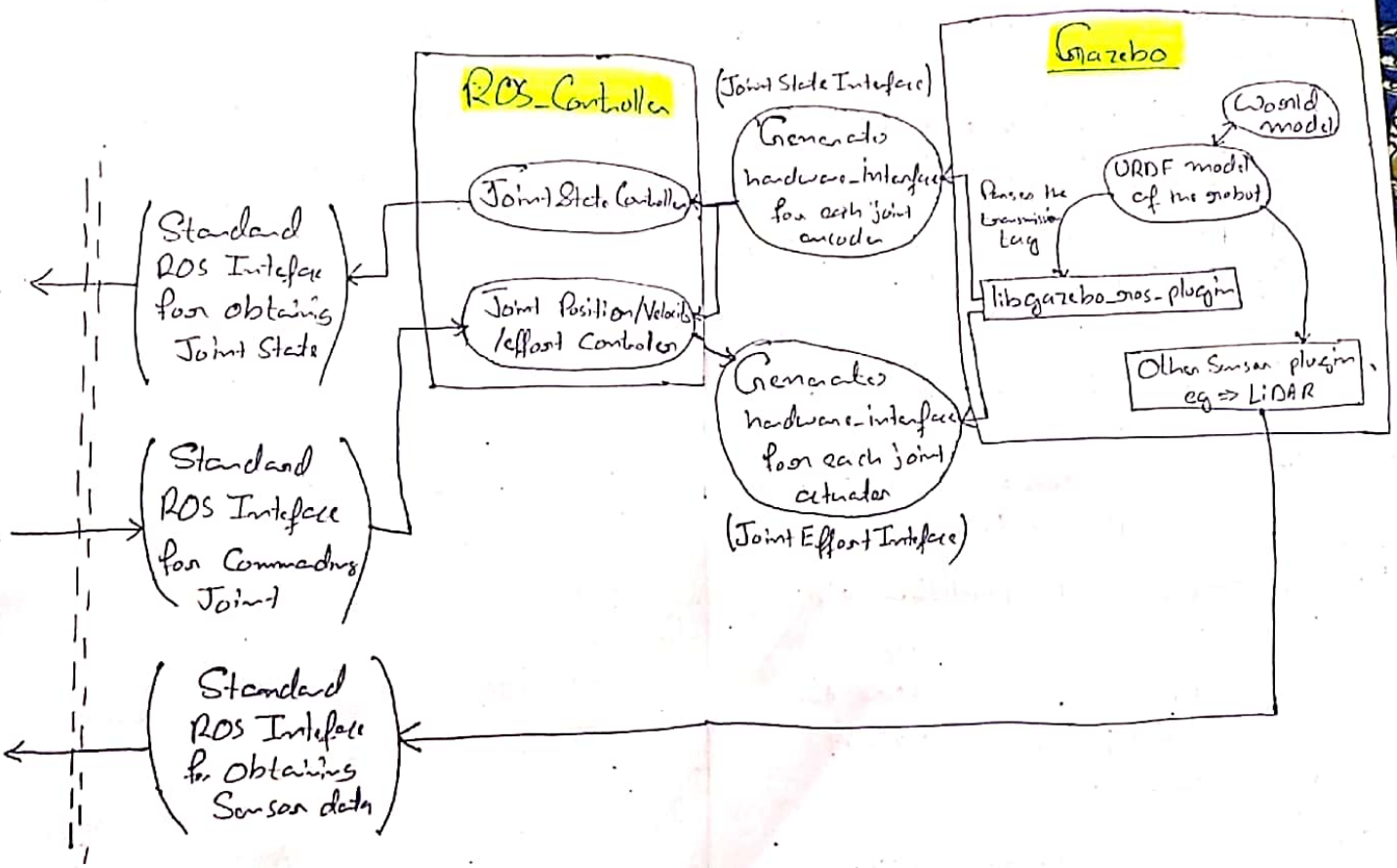
Working with a robot in Simulation



* Work flow for working with Robot in Simulation

① Build a detailed URDF model of the robot.

(With all the inertial detail, material property (Specials for parts which will be in contact), Joint properties for non-rigid joint and necessary plugin for ros_control and Sensors attached)

② Write ROS controller for controlling each joint.

(Try to use standard ROS controller whenever possible to save time.)

③ Use robot state publisher to publish tf data.

④ Write Application software for Commanding your robot as a whole.

{Try to use standard package Such as Navigation stack and Moveit etc. whenever possible}

⑤ Build UI (User Interface) application for your robot.

eg ⇒ Voice based communication, so the robot understand what user is saying and infer which application software to call and with what goal.

⇒ Or Simple teleoperation Control of the robot using Key board & display board interface.