We have initially designed a flowchart for implementing the Grasping Module. The flowchart illustrates the process of robotic arm grasping, including target detection, 3D position calculation, grasp execution, and robot movement.We plan to draw on the following algorithms to implement the related functionalities.

**1、Trossen Robotics official documentation:** [https://docs.trossenrobotics.com/interbotix\_xsarms\_docs/ros2\_packages/perception\_pipeline\_configuration.html](https://docs.trossenrobotics.com/interbotix_xsarms_docs/ros2_packages/perception_pipeline_configuration.html" \t "_new). Detailed information about the perception pipeline configuration for **Interbotix X-Series robotic arms in ROS 2** can be found in this document.

**2、interbotix\_perception\_modules：**<https://github.com/Interbotix/interbotix_ros_toolboxes/tree/humble/interbotix_perception_toolbox/interbotix_perception_modules>This module provides image processing and target detection functionality for the Interbotix X-Series robotic arms. Our team plans to refer to the principles of this module for future development.



