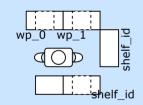


RGB Image



World state



Telemetry



Text command

Move box 999 from shelf 1 to free shelf

Multimodal Scene Graph Creation Module

Instance Segmentation

Depth Map Reconstruction

ArUco Detection

Mask-ArUco Fusion

Planner module

Prompt Generation for Task Decomposition

Prompt

Final Command Sequence Generation

LLM Module

Decomposed

Task Decomposition

Scene Graph

Error



Actual State Service

Current Object States Info Uptade

Command Sequence

{"name": "go_to", "args": { "waypoint_id": 1}} {"name": "pick_up", "args": { "box_id": 999}} {"name": "go_to", "args": { "waypoint_id": 3}} {"name": "drop", "args": { "shelf_id": 5}}

Robot Low Level Control System

