

COBOT MAGIC

Open-Source Bimanual Mobile Manipulation with Whole-Body Teleoperation



- Whole-body teleoperation system
- Ultra-lightweight 6DoF robotic arms
- High-performance on-board computer
- 2-Wheel differential drive mobile robot
- Completes complex tasks via imitation learning



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Introduction

Cobot Magic is an open-source robotic system leveraging Mobile ALOHA to complete simultaneous teleoperation of a mobile base and robotic manipulator. The platform comprises an indoor differential drive AGV base, high-performance robotic arm, and deep camera. It facilitates the Mobile ALOHA's deep learning framework for robotic tasks ranging from basic pick-and-place to complex operations like pouring, cooking, calling and entering an elevator, and organizing objects. Cobot Magic allows users to effectively leverage open-source hardware and software for robotic learning and control.

Technical specifications

Component	Item Name	Model
Standard Configuration	Wheeled Mobile Robot	Tracer
	Deep Camera x3	Orbbec Dabai
	USB Hub	12V Power Supply
	6 DOF Lightweight Robot Arm x4	Customized
	Adjustable Velcro x2	Customized
	Grip Tape x2	Customized
	Power Strip	4 Outlet
	ALOHA Stand	Customized
Optional Configuration	Nano Development Kit	Jetson Orin Nano Developer Kit (8G)
	On-board PC	APQ-X7010/GPU 4060/i7-9700-32g-4T
	IMU	CH110
	Display	11.6" 1080p

