uni-robot-agent

A unified harness for robot use.

01
Agent

ENVIRONMENT CONTEXT
Prompts & Tool descriptions
Tool contributions and history policies

AGENT BACKENDS
Codex / Claude Code
Task reasoning, tool calls, native collaboration

Tool calls

02
Orchestration

MCP adapters
HTTP / Claude SDK

ToolExecutor
Serial / parallel execution
Resource exclusivity

Toolkit
ToolDef registration
Schema + handler

Unified call and result contract

03
Tools

One shared implementation
Shared Episode; arm and camera parameters from environment descriptors.

GripperTools
Motion & grasping
`move` · `grasp`
`release` · `hold`
hybrid mode: `actor_act`

SceneTools
Scene perception
`view_env_state`
`capture_scene` · `locate`

SkillTools
Skill library
`list_skills`
`read_skill`
`write_skill`

EpisodeTools
Episode completion
`finish`

04
Services

`Episode → EnvironmentClient`
EnvironmentService
Step, state, snapshots, execution receipts

`GripperTools → ActionBinding`
ActorService
ActorClient: action proposals and batching

`SceneTools → PerceptionClient`
PerceptionService
Image segmentation and batching

Backend contract

05
Backends

EnvironmentBackend
RoboUse / RoboDojo adapters
Native simulation runtimes

Pi05Backend
OpenPI / JAX
RoboDojo Pi0.5

Sam3Backend
SAM3 inference
Text / point prompts; image cache