Open Source 西门子

Oct. 29
Industrial Open Source

Oct. 30
Open Source Robotics

Agenda

Beijing · 2026

Open Collaboration for Humanoid Robotic Agents: From Sanitized Factory Scenes to Task Definition

Li Chunchao

2026.10

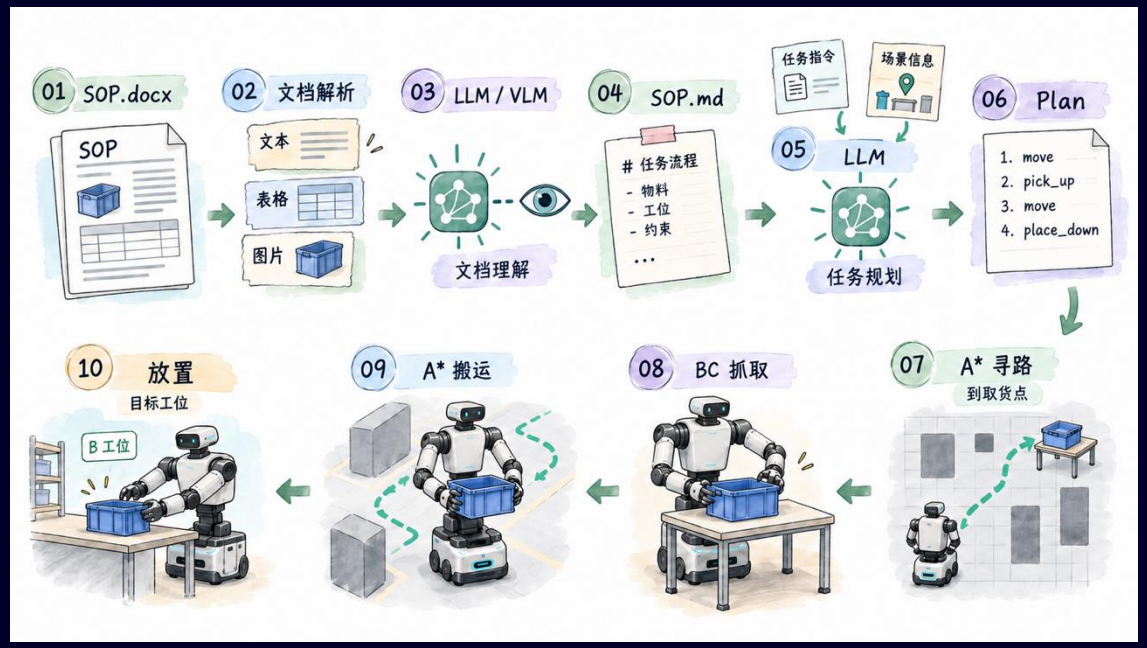


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The competition translated a real factory handling problem into a virtual challenge

- Jointly organized with Tsinghua University
- Embodied Intelligence Handling Challenge



*** contributed by participants**



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Sanitization made factory scenes shareable without losing industrial relevance

- Started from factory models, SOPs, and operational knowledge
- Sensitive details could not be exposed directly
- Layouts were perturbed and reorganized
- Sensitive models were replaced or abstracted
- SOPs were sanitized and regenerated for open use
- Task structure was preserved for simulation

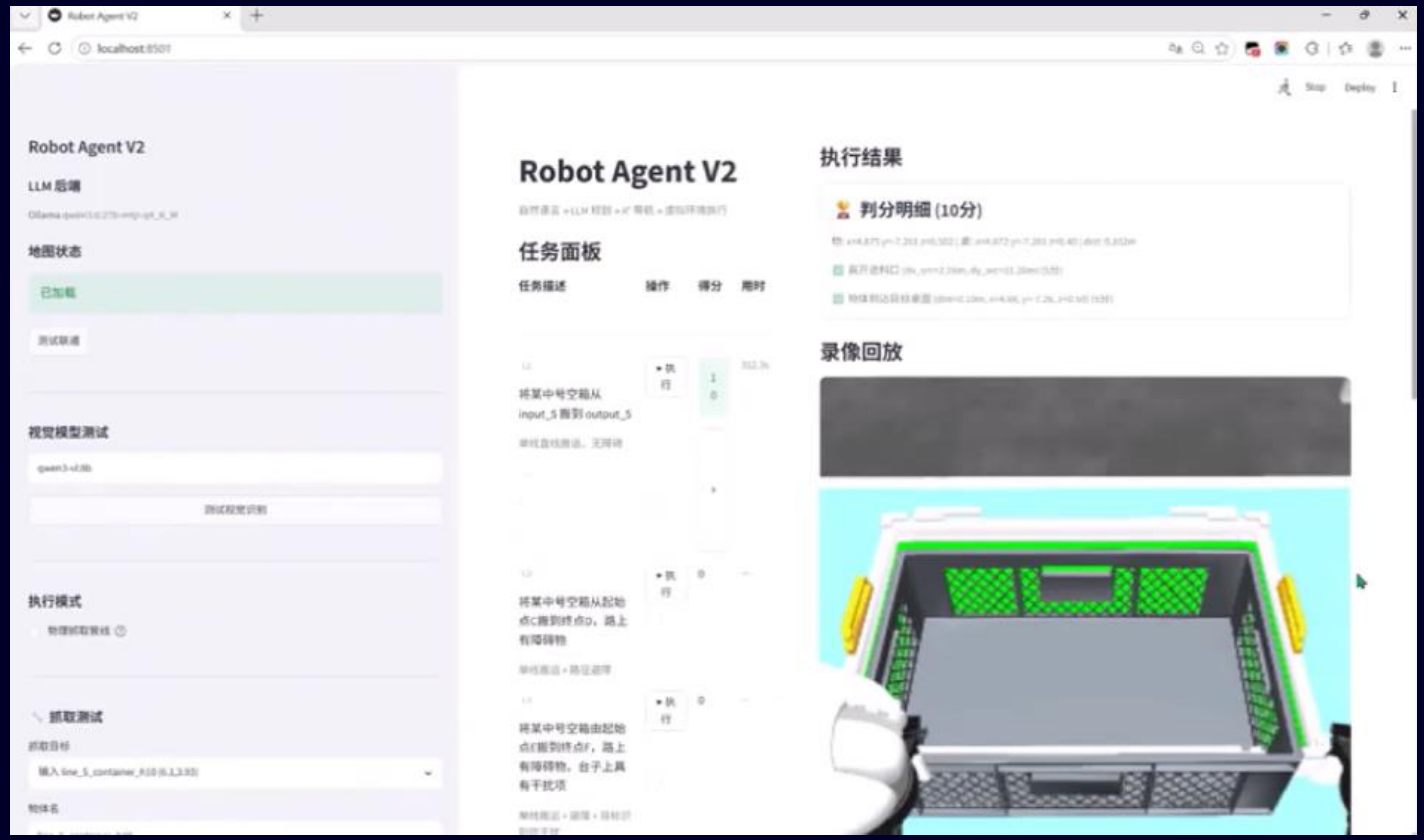


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One sanitized scene could be rapidly expanded into multiple open cases for experimentation

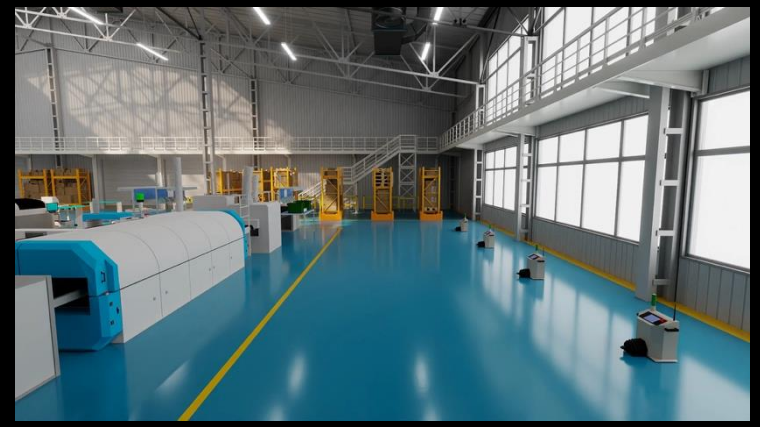
- We built an initial simulation platform for the competition
- Shared scenes, baseline algorithms, and scoring supported fast onboarding
- The released setup was open-sourced for reuse and experimentation

- Behind the platform, fast case generation from factory scenes is one of our core technical capabilities
- This capability points toward future scalable task-set creation



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The competition came together by connecting capabilities alone

清華大學

simulation platform
co-development



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industrial scenes, sanitization,
and test-case derivation

智谱·AI

LLM APIs and token
support for participants

群核科技
MANYCORE

rendering support and
model lightweighting

Open participation transformed a single benchmark into a broad design space







* contributed by participants

- 134 Teams
- 195 Contestants

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Open collaboration created mutual value for organizers, partners, participants, and the industry

- Participants did not only use the platform, but also helped improve it
- Some participant suggestions were incorporated after release
- All submissions were openly published on GitHub
- The platform repository linked leaderboards with participant solutions
- The result was a more transparent, traceable, and reusable process

Rank	Participant / Team	Scoring program score	Reviewed process score	Date	Code / Repository
1	GEEK	100/100	100/100	2026-08-28	https://github.com/yzl123/jciiot2026_bc
1	OeacnYang	100/100	100/100	2026-08-28	https://github.com/yangwinnietang/JCIIOT2026-t
1	kkaveh	100/100	100/100	2026-08-28	https://github.com/KKaveh830/jciiot2026_njhk
1	VIPA	100/100	100/100	2026-08-28	https://github.com/xieyc99/JCIIOT2026
1	一头二臂	100/100	100/100	2026-08-28	https://github.com/astronomyzhang/JCIIOT2026.(
1	周春光	100/100	100/100	2026-08-28	https://github.com/cg-zhou/mopilot
1	看看是啥	100/100	100/100	2026-08-28	https://github.com/thoth2026/jciiot
8	ruc_wyuuu	100/100	95/100	2026-08-28	https://github.com/WangYuzzu/JCIIOT2026-subm
9	VisionAnchor	100/100	90/100	2026-08-28	https://github.com/habimiao/JCIIOT2026/tree/ma final-clean

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This work can grow into industrial validation task sets and safety standards for humanoid robots

Common Industry Practice:

- No national standard dedicated for Humanoid Robots in China; standard system remains under development.
- Industry adopts a three-tier composite safety framework as the transitional solution

Tier 1: Core Mandatory Baseline (Robot-Specific)

- **GB 11291 series** (full mandatory national standard, identical to **ISO 10218 series**) as the core safety framework



Tier 2: General Mandatory Foundation (All Industrial Equipment)

- Comply with **GB 5226.1** (electrical safety) and **GB/T 16855.1** (functional safety)



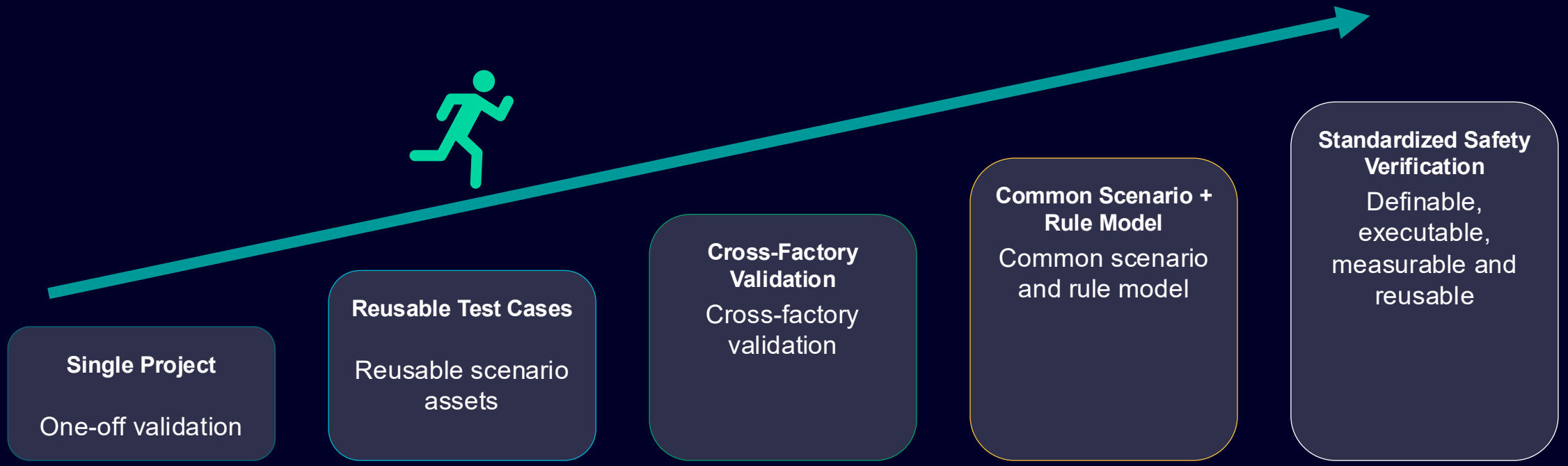
Tier 3: Supplementary Reference for Humanoid-Specific Risks

- Supplement with standards for collaborative robots and AGVs/industrial mobile robots



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