MirrorBench Asset Pool

Body Assets

4 Human Embodiments

3 Robot Embodiments

6 hand types   *6* mark designs

Altogether **5000**+ Inference Steps for each MLLM

Prompt Construction

*You have **body** & **hand**.*
*There is a **mirror**.*
*Your goal: **reach the mark**.*
Your available options — Up / Down / Left / Right / Forward / Backward

Simulation Environment

Self-Referential Inference Loop

MLLM-Powered Embodied Agent

Toward Higher-Order Intelligence

In **Level 3**,
*I need to **recognize** myself versus my reflection; otherwise, I'll move in the wrong direction.*

In **Level 2**,
*I need to **discover** the mirror and use it to address visual challenges such as* occlusion.

In **Level 1**,
*I need to establish **mirror reasoning**: inferring real-world spatial relationships from mirror-space positions.*

In **Level 0**,
*I only need to **distinguish** my real hand from its reflection.*