

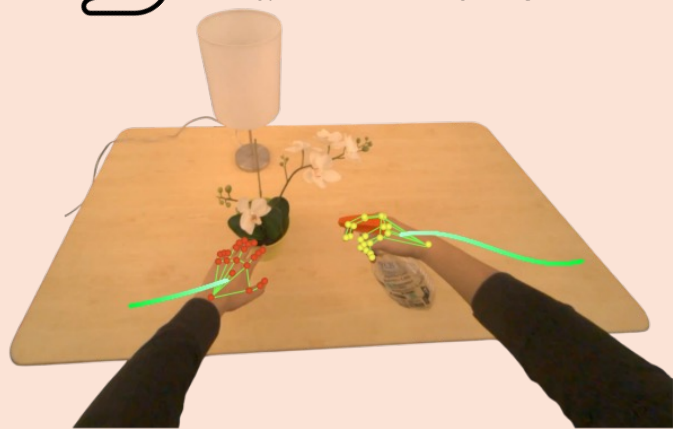
Egocentric Human Videos



Human Videos



Human Action



EgoEngine

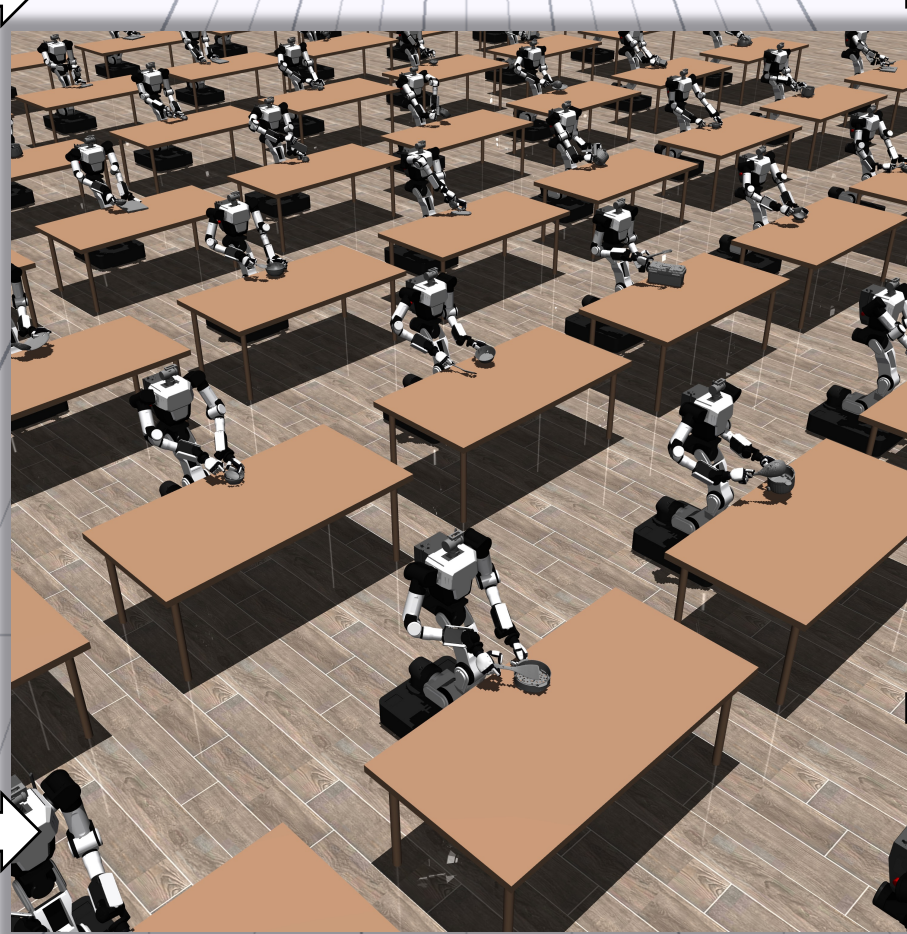
Real to Sim

Digital Twin



3D Lifting

Simulation Assets



Human Videos to Robot Simulation

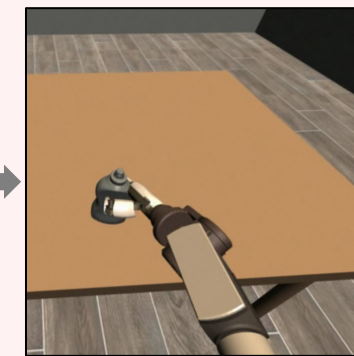
Visual Generation

1) Video Inpainting



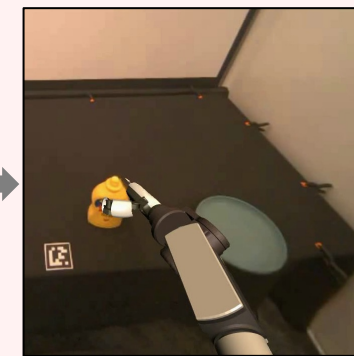
Human Mask

2) Robot Rendering



Digital Twin

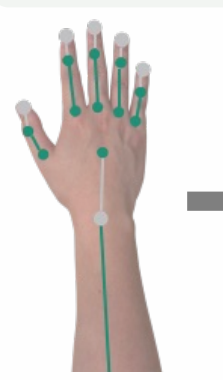
3) Video Blending



Occlusion-Aware

Action Generation

1) Human-centric Retargeting



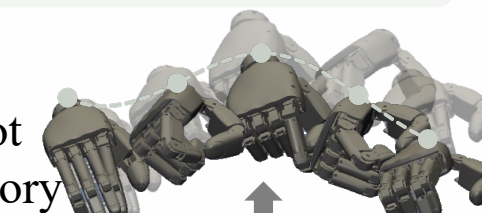
Human Hand Motion



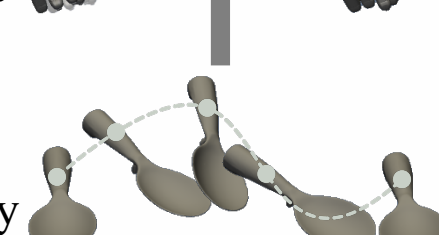
Reference Trajectory

2) Object-centric Optimization

Robot Trajectory



Object Trajectory



Robot Demonstrations



Robot Observation



Executable Robot Action

