

OmniHand 3 Lite

Compact · Robust · Accessible

OmniHand 3 Lite measures 140*70*32mm, about the size of a computer mouse. At 350 grams, it brings full dexterous manipulation into half-scale humanoid platforms, mobile manipulators, and developer ecosystems that previously had no choice but grippers.

Validated through rigorous impact and drop testing, Lite stays reliable through dynamic motions - including single-arm cartwheels and full-body acrobatics that traditionally require removing the hands. Natively compatible with Dex-UMI data-collection systems, supported by an open-source kit and toolchain — built for rapid integration, prototyping, and large-scale developer programs.



Features and Benefits

Designed for Half-Scale Humanoids

The **smallest** production-grade dexterous hand today, built for half-scale humanoids, mobile manipulators, and compact service robots — where full-size hands have never fit.

Built to Stay On the Robot

Aerospace-grade metal frame with one-piece silicone overmold. Validated through impact, drop, and collision testing — supporting cartwheels, acrobatics, and falls with the hand staying assembled.

Open Developer Platform

Dex-UMI compatible, optional wrist-mounted camera, and a fully open-source toolkit. Built for rapid prototyping, classroom adoption, and developer programs.

Specifications

Degrees of Freedom

4 + 7
active passive

Dimensions

140*70*32mm

Opening/ Closing Time (Typ.)

0.5s

Payload

1kg
stable grasping

Repetitive Positioning Accuracy

±0.5mm

Communication Interface

CANFD/ RS485

Weight

350g

Compatibility: Half-scale humanoid platforms · Mobile manipulators · Dex-UMI · Open-source kit · ROS 2

Application Scenarios

Service Robotics



Hospitality, healthcare, and food service deployments

Mobile Manipulation



Inspection, delivery, and Last-mile dexterous manipulation

Educational Platforms



University programs, robotics competitions, student projects