

Robot-Free Data Collection Device Business Overview

June 16, 2026

1 About Orbbec

Founded in 2013 · Listed on the STAR Market

Market cap over RMB 30B · Annual revenue growth over 50% (2024 & 2025)

Headquarters: China · Branches / business units: U.S., Europe, Korea, Japan, Vietnam

Comprehensive vision product portfolio

Structured Light · Stereo · iToF · dToF ·
LiDAR · RGB



Full-stack vision capabilities

Chips → Cameras & LiDAR → Algorithms →
Manufacturing



Robotics vision deployed at scale

- 71% market share in China's service robot vision market
- 70% share of South Korea's commercial robot vision market
- Leading vision supplier for humanoid robots in China



Industry Platform for Robotics and AI Vision



Vietnam Factory



Shunde Factory



Shenzhen Headquarters

2 Embodied AI Customer Base



Humanoid Half-Marathon Winners

Winners of two consecutive Beijing Humanoid Half-Marathons, equipped with Orbbec depth cameras

Humanoid Robots

Orbbec works with leading humanoid robotics companies. (See below.)

NVIDIA Jetson Thor

Gemini 330 series is integrated with major platforms including NVIDIA Jetson Thor.

Customer Wall — Embodied AI & Humanoid Robotics



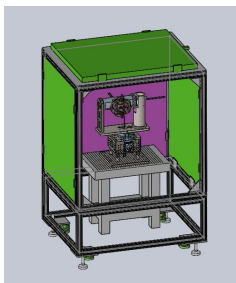
3 Data Collection Device Related Capabilities

Only vendors that combine a broad robotic vision product portfolio, multi-sensor fusion expertise, and large-scale manufacturing capacity can deliver data collection systems at production-grade, training-ready quality.

A

Camera Calibration

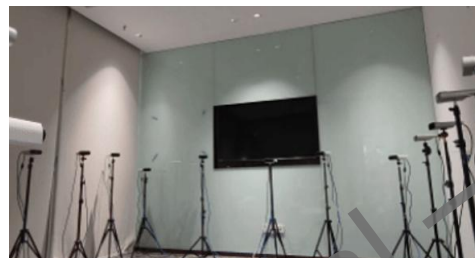
- Fisheye / high-distortion lens calibration
- RGB / depth / IMU intrinsic and extrinsic calibration
- In-house calibration equipment



B

Multi-Camera Synchronization and Triggering

Multi-camera hardware sync, external trigger, and primary-secondary timing design for synchronized multi-view capture and playback.



C

Panoramic Stitching

In-house panoramic camera capabilities, with stitching algorithms covering fisheye calibration, image stitching, color blending, feature tracking, anti-shake and more key technologies.



D

Product & Technology Matrix

- Full product lines covering RGB, structured light, stereo, ToF, and LiDAR. Capability to provide the optimal vision solutions for different data acquisition scenarios.
- extensive experience in multi-sensor fusion design



E

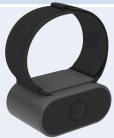
Capabilities in manufacturing and large-scale delivery

- Delivered multiple million-unit mass-production projects
- Built a comprehensive quality management system
- End-to-end quality control across R&D, suppliers, IQC, manufacturing, OQC, reliability testing, and after-sales service



4 Orbbec Solutions Matrix



Solutions	Product Images	Hardware Configuration	Key Value Proposition	Demo Unit Ready
Dual-RGB EGO		RGB Stereo: Data Collection + SLAM	Low-cost, rapid POC deployment	Late June. 2026
Quad-RGB EGO		RGB Stereo Data Collection + RGB Stereo SLAM	Decoupling of data stream and localization stream	Late July. 2026
RGB-D EGO		Gemini 330 + RGB Tri-Camera SLAM	Depth sensing + robust localization	Early August. 2026
WristCam		Single RGB Camera + Wristband	Close-range hand-view supplementation	Early July. 2026
UMI Finger		Single-Camera Data Collection + Stereo SLAM + Finger-Worn Gripper	Low-cost dexterous manipulation	Early August. 2026
UMI Gripper		Single-Camera Data Collection + Stereo SLAM + Gripper	End-effector actions closer to real robot behavior	Early August. 2026

4a Dual-RGB EGO



Module	Specification
Captured Data	Stereo RGB, IMU, Audio
Modularity	Camera and head-mount are replaceable
Typical Use Cases	Crowdsourcing scenarios, lightweight deployment, cost-effective applications
Total Device Weight	< 220g
Camera Resolution	2MP
Frame Rate	30fps / 60fps
Shutter Type	Global Shutter
Field of View (FOV)	H 160° / V 130°
Video Encoding	H.264
IMU	6-axis
IMU Sampling Rate	400 Hz
Wired Interface	USB2.0 Type-C
Local Storage	Supports up to 128 GB TF Card
Synchronization Accuracy	IMU-to-image synchronization error < 1 ms

4b Quad-RGB EGO



Module	Specification
Captured Data	Quad RGB Cameras, IMU, Audio
Typical Use Cases	Crowdsourcing scenarios, lightweight deployment, cost-effective applications
Total Device Weight	< 300g
Camera Resolution	2MP
Frame Rate	30fps / 60fps
Shutter Type	Global Shutter
Field of View (FOV)	H 160° / V 130° (After stitching 4 RGB cameras, the HFOV is $\geq 270^\circ$)
Video Encoding	H264
IMU	6-axis
IMU Sampling Rate	400Hz
Wired Interface	USB3.0 Type-C
Local Storage	Supports up to 256 GB TF Card
Synchronization Accuracy	IMU-to-image synchronization error < 1 ms

4c RGB-D EGO



Module	Specification
Captured Data	Triple RGB cameras + Depth, IMU, Audio
Typical Use Case	High precision manipulation scenarios within 1.5 m range
Total Device Weight	< 400g
Depth Module Gemini336/336L	1280x800 @30 Y16
	848x480 @60 Y16
	640x480@90 Y16
	FOV: H 90° / V 65°
RGB Module	Spatial accuracy: < 0.5% at 1 m
	3* 2MP
	Global shutter
	FOV: H 160° / V 130°
IMU	Encoding: H264
IMU Sampling Rate	6-axis IMU
Synchronization Accuracy	400Hz
Interfaces	IMU-to-image synchronization error < 1 ms
Local Storage	USB3.0 Type-C
	Supports up to 256 GB TF card

4c RGB-D EGO

Powered by the Orbbec Gemini 330 series stereo 3D camera and the Robbyant LingBot-Depth spatial perception algorithm, it enables high-fidelity depth image capture with rich details and precise depth accuracy.

1 Hardware Foundation

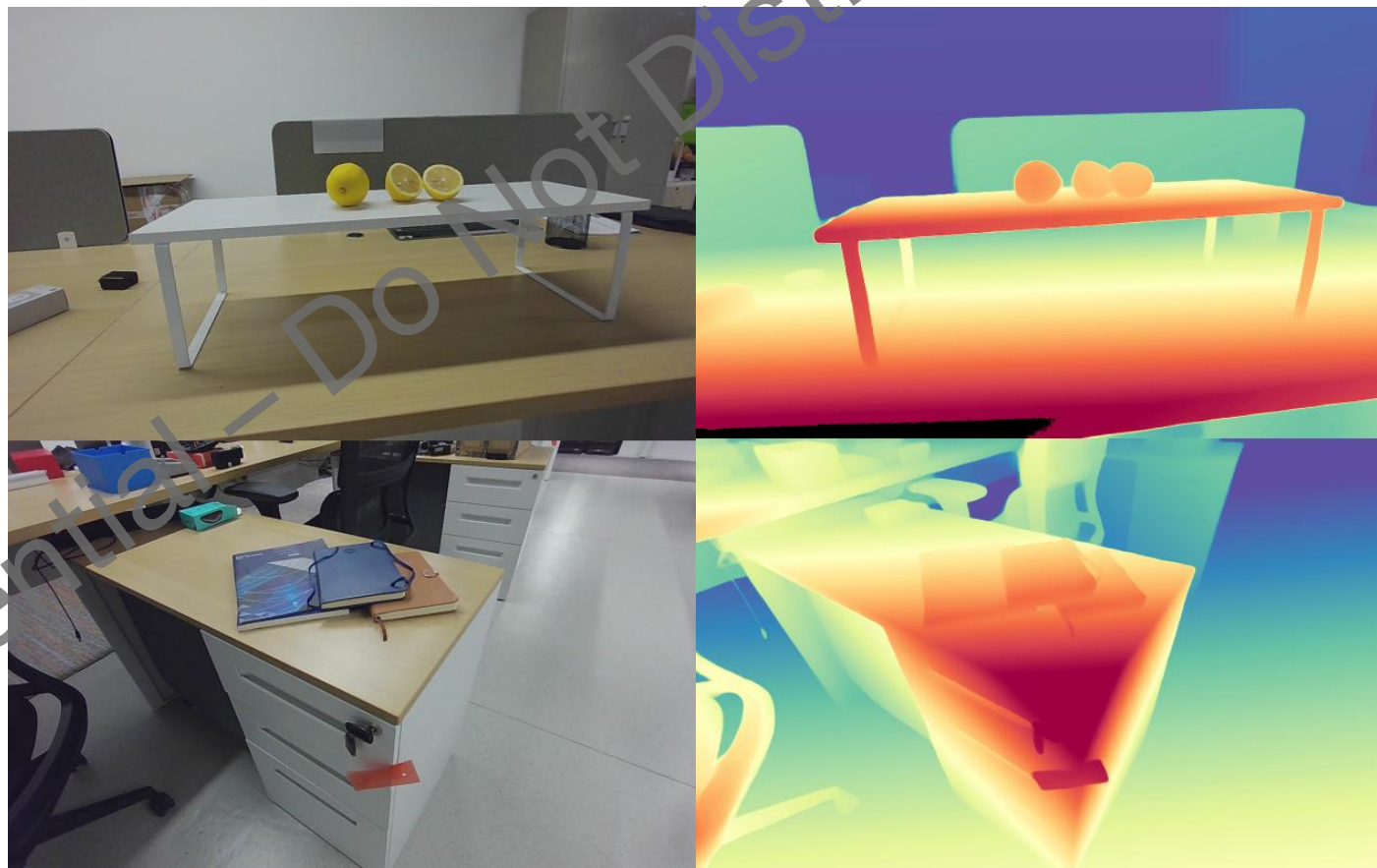
The Gemini 330 series features the in-house depth engine ASIC MX6800, which outputs depth data directly at the chip level, achieving high accuracy and low latency.

2 Algorithm Enhancement

Based on hardware depth, LingBot-Depth integrates RGB texture and contextual information to intelligently fill in missing data, delivering sharper edges.

3 VLA Advancement

Compared to VLA without Depth, VLA with Depth significantly improves the success rate of grasping reflective and transparent objects.



RGB Image

Depth Image
(Gemini 330 + LingBot-Depth)

4d WristCam



Module	Specification
Captured Data	Wrist-mounted RGB images
Modularity	Camera and mount are replaceable
Typical Use Case	Crowdsourcing scenarios, lightweight deployment, cost-effective
Total Device Weight	< 60g
Camera Resolution	2MP
Frame Rate	30fps / 60fps
Shutter Type	Global shutter
Field of View (FOV)	H 160° / V 130°
Video Encoding	H.264
IMU	6-axis
IMU Sampling Rate	400 Hz
Wired Interface	USB3.0 Type-C
Local Storage	Supports up to 128 GB TF card
Synchronization Accuracy	IMU-to-image synchronization error < 1 ms

4e UMI Finger



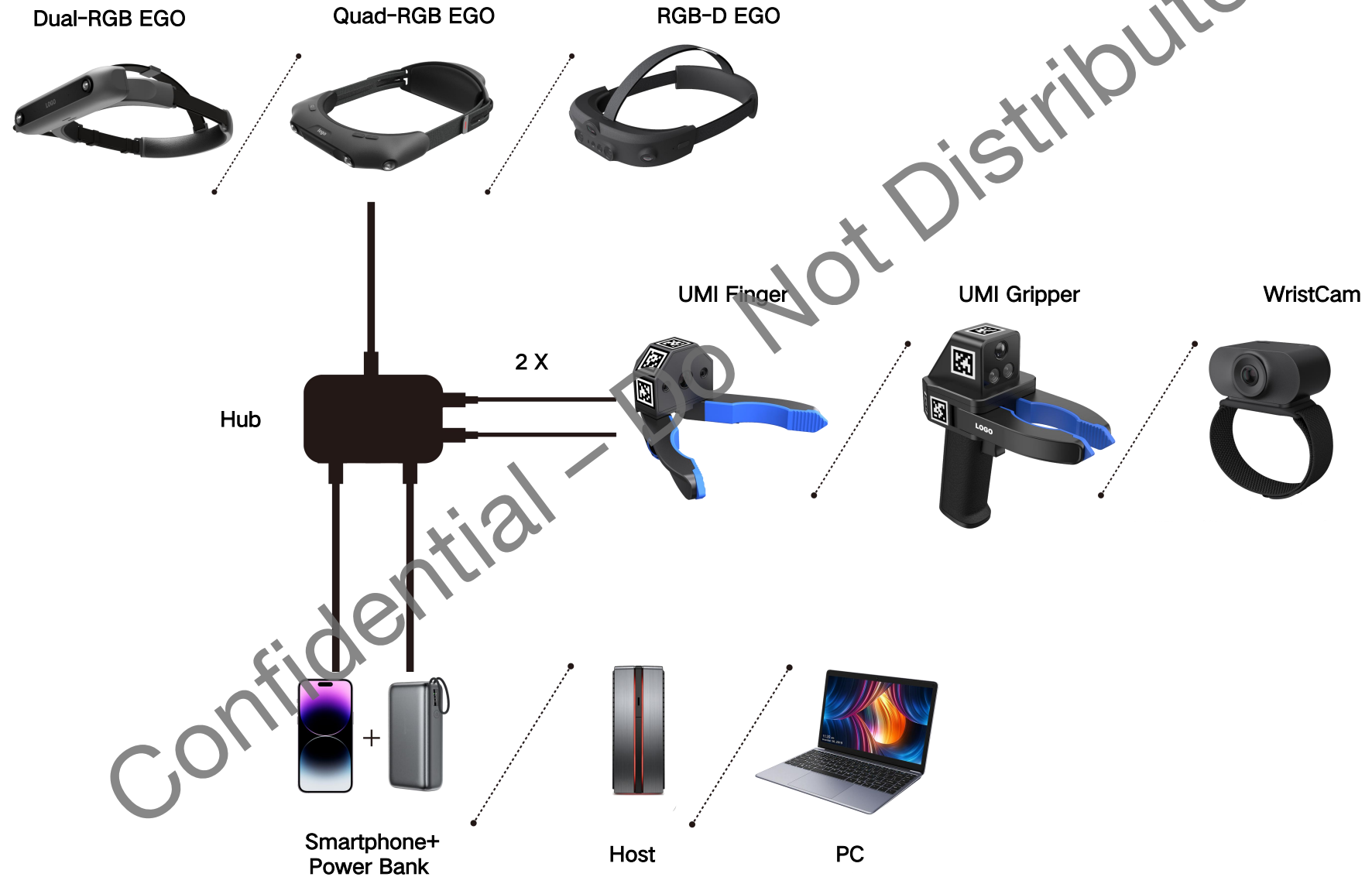
Module	Specification
Captured Data	Fisheye images, IMU and gripper opening/closing
Modularity	Gripper is replaceable
Typical Use Case	Lightweight and low-cost, enabling dexterous manipulation
Total Device Weight	< 200g
Camera Resolution	Fisheye RGB: 2MP Mono SLAM: 1MP
Frame Rate	30fps / 60fps
Shutter Type	Global shutter
Field of View (FOV)	Fisheye RGB: H:165° / V:137° Mono SLAM: H:130° / V:95°
Video Encoding	H.264
IMU	6-axis IMU
IMU Sampling Rate	400Hz
Wired Interface	USB3.0 Type-C
Local Storage	Supports up to 256 GB TF card
Maximum gripping force	2 kg
Synchronization Accuracy	IMU-to-image synchronization error < 1 ms

4f UMI Gripper



Module	Specification
Captured Data	Fisheye images, IMU, audio, and gripper opening/closing
Typical Use Case	Hand interaction details such as grasping and gripping
Total Device Weight	< 500g
Camera Resolution	Fisheye RGB: 2MP Mono SLAM: 1MP
Frame Rate	30fps / 60fps
Shutter Type	Global shutter
Field of View (FOV)	Fisheye RGB: H:165° / V:137° Mono SLAM: H:130° / V:95°
Video Encoding	H.264
IMU	6-axis IMU
IMU Sampling Rate	400Hz
Wired Interface	USB3.0 Type-C
Local Storage	Supports up to 256 GB TF card
Maximum gripping force	2.5 kg
Synchronization Accuracy	IMU-to-image synchronization error < 1 ms

4g System Kit



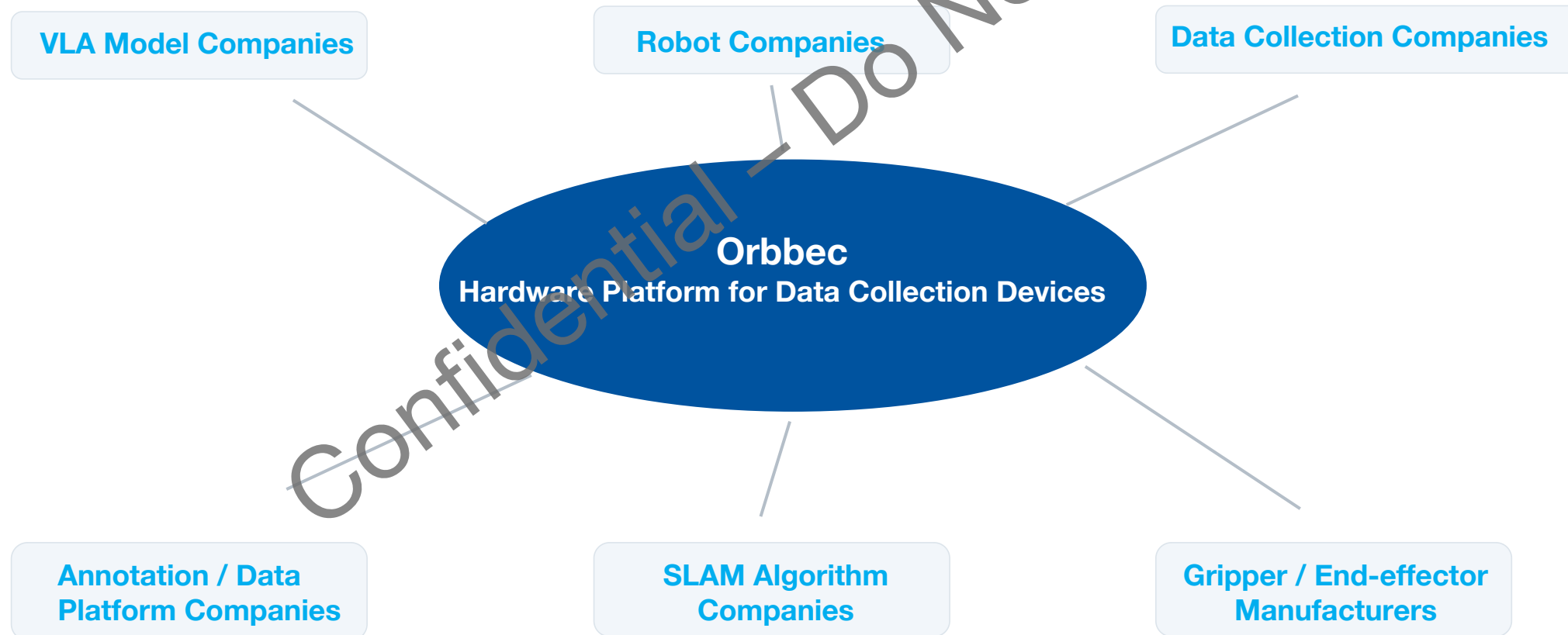
* Kit includes Hub and custom cables.

5 Our Collaboration Model



We position ourselves as a hardware platform provider for data collection devices, offering hardware OEM/ODM services to VLA model companies, robot companies, data collection service providers, and other algorithm-driven companies.

1. If you already have a designed data acquisition device, our own factory can handle professional OEM manufacturing. (Orbbec Factory features industry-leading calibration expertise and mass production capacity for millions of multi-sensor vision devices.)
2. If you need a manufacturer to design and build your data acquisition devices, we provide ODM services. The brand is yours; we handle hardware design and production. (We have rich experience in robotic vision deployment to fully understand your needs.)



THANK YOU