

智能仓储 匠心慧制

SMART WAREHOUSE INTELLIGENCE MANUFACTURE



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高速立体智慧仓储开拓者

PIONEER OF HIGH SPEED 3D WAREHOUSE AUTOMATION

浙江慧仓智能科技有限公司

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慧仓机器人

HC ROBOTICS

高速立体智慧仓储开拓者
PIONEER OF HIGH SPEED 3D WAREHOUSE AUTOMATION

慧仓机器人 (HC ROBOTICS) 成立于 2016 年, 创立至今, 公司始终执着于物流自动化设备的创新, 在智能仓储和立体分拣两大关键领域发力, 为市场带来了众多卓越设备, 包括“穿云箭”、“闪电播”等, 在仓储物流中均有着独特优势。

慧仓产品广泛应用于制造、流通和终端等环节, 以“省人省地、双管齐下”为突出优势, 可节省 70% 以上的人工和占地。慧仓产品具备快速实施、灵活搬迁的显著特点, 为客户提供高投入产出比、高灵活性的仓储自动化解决方案。

慧仓机器人秉承“技术为本, 客户为先”的发展理念, 客户从世界五百强到中小企业, 涵盖工业制造、电商、工业品流通、冷链生鲜、前置仓等诸多领域。慧仓机器人胸怀“中国智造, 服务全球”的发展愿景, 销售服务网络覆盖全国, 并与日本、韩国和美国的行业龙头合作, 成功打入日韩和欧美市场。

慧仓机器人将不断提供高可靠性、高性价比的高速立体仓储产品, 为您的仓储智能升级助力。

Founded in 2016, HC Robotics has remained steadfast in its commitment to innovating logistics automation equipment. The company focuses on two key areas—intelligent warehousing and 3D sorting—and has introduced a range of exceptional products to the market, such as "OmniFlow", "OmniSort", each offering distinct advantages in warehousing logistics.

HC Robotics' products are widely used in manufacturing, distribution, and terminal operations, known for their significant benefits in labor and space efficiency. These solutions can achieve over 70% savings in both labor and space, with rapid implementation and flexible relocation capabilities providing customers with automated warehousing solutions that deliver high returns on investment and remarkable flexibility.

The existing customers of HC Robotics range from Fortune 500 to small businesses, and include manufacturers, E-commerce, MRO suppliers, cold chain logistics, micro-fulfillment centers, etc. HC Robotics has established strategic cooperation with our partners in Japan, South Korea, United States, Europe, among others.

We are glad to provide highly reliable and cost-effective warehouse automation products and services for our customers all around the globe.

应用行业 / Application Industry



精密制造
Precision Machining



快递
Delivery



电商
E-commerce



服装
Apparel Industry



零售
Retail



医药
Medicine



图书
Books



生鲜冷链
Cold Chain



印染
Dyeing Industry



汽车
Auto Industry



MRO
MRO



前置仓
Front-line Storage

核心优势 / Core Advantage



卓越研发能力
Outstanding R&D Ability



完善制造体系
Complete Manufacturing System



全球服务网络
Global Service Network



灵活方案规划
Flexible Solution



严格质量管理体系
High QC System



全面售后服务
Comprehensive After-Sales Service

合作伙伴 / Partnership



H C R O B O T I C S

慧仓产品 HC Products

慧仓机器人围绕智能仓储核心应用场景，推出两大产品系列：存储系列“穿云箭”与分拣系列“闪电播”，打造高速立体存储与分拣一体化系统。方案已成熟应用于众多场景，可节省70%以上人工与空间成本，帮助客户以更低成本实现高效率、高灵活性的自动化升级。

HC ROBOTICS specializes in innovative intralogistics automation, featuring our core offerings of OmniFlow for tote storage and OmniSort for item sortation. Our systems are designed to boost productivity while reducing footprint and labor costs, addressing order fulfillment challenges with cost-effective and flexible automations.

存储系列 / Storage

分拣系列 / Sorting



慧仓穿云箭 OmniFlow

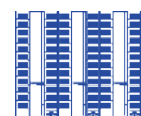
慧仓闪电播 OmniSort



部署时间最快 7 天
Rapid Deploy
模块化设计，易扩容
Modular design
and future proof



人工效率提高 2-3 倍
Boosted Efficiency
多机并行，效率提升
Robot fleet working
in parallel



提高存储密度
Superior Density
覆盖 3-9m 立体存储空间
Cover 3m-9m vertical
3D storage space



准确率提升至 99.99%
Unparalleled Accuracy
智能机器人，提升准确率
Maximum accuracy for
operational excellence



根据需求灵活规划方案
Flexible Planning
适用于多种场景
Apply to multiple
applications

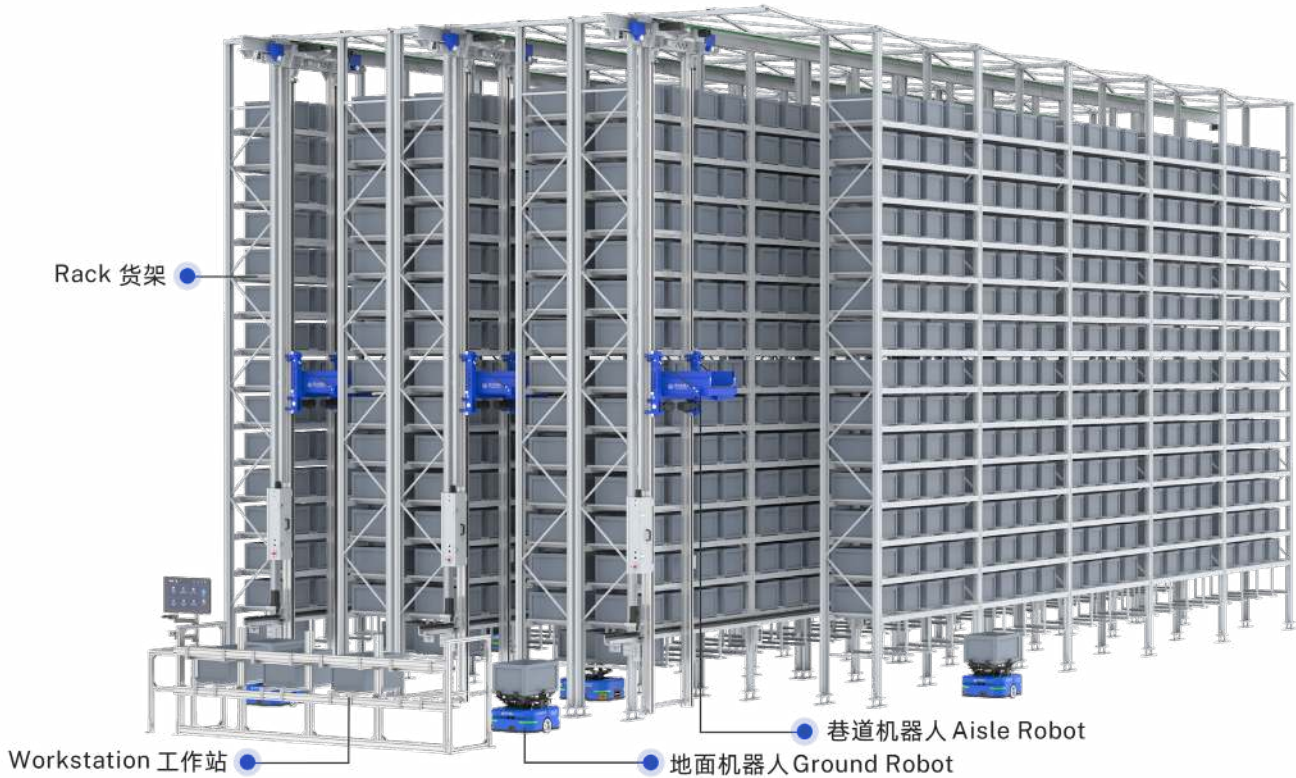


快速收回投资成本
Excellent ROI
提高资金利用率
Improve capital
utilization

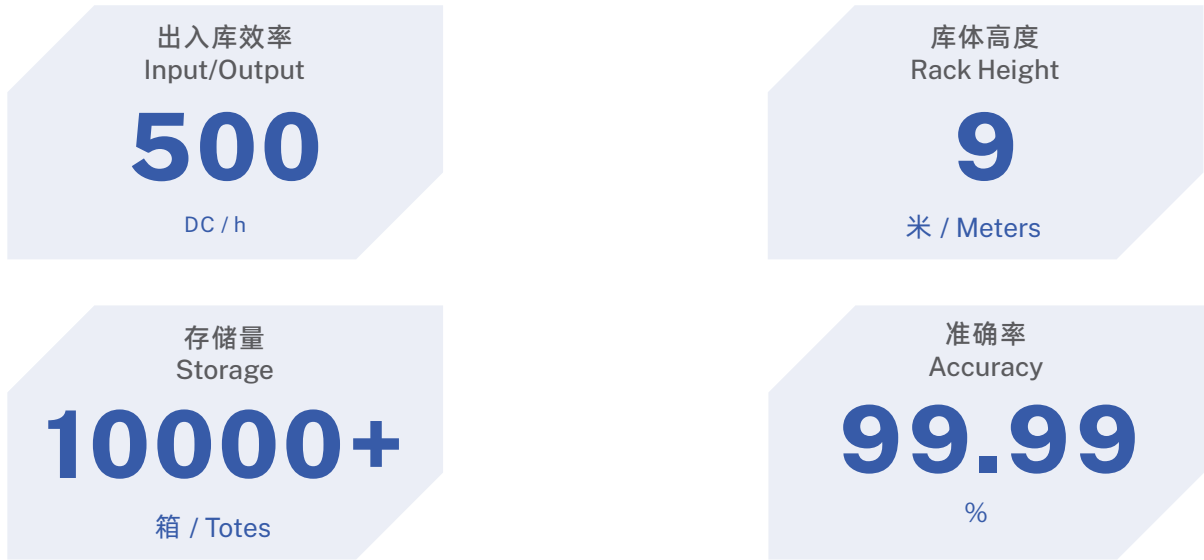
慧仓穿云箭

慧仓穿云箭：根据仓库高度和面积，可灵活定制的大型高速立体存储系统，适用于大型物流仓储中心的拆零拣选、整箱缓存，智能制造厂区的半成品及成品存储等应用场景，同样适用于新零售时代的前置仓等应用场景。

A large-scale high-speed 3D storage system flexibly customized according to the height and area of the warehouse. It is suitable for application scenarios such as splitting, picking and full-box caching of large-scale logistics storage centers, storage of semi-finished products and finished products in intelligent manufacturing plants. It is also suitable for application scenarios such as front warehouses in the new retail era.



产品亮点 / Product Highlight



OMNIFLOW

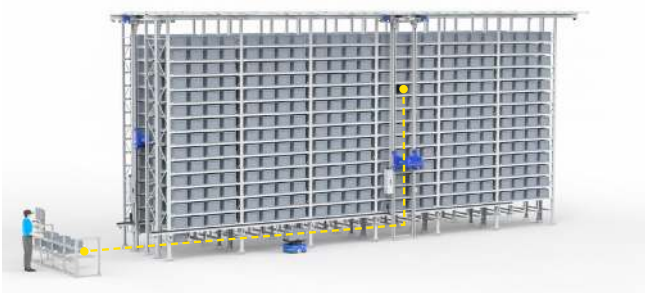
产品特点 / Product Features



机器人集群：机器人集群，充分利用三维空间并行作业，各司其职，协作效率高。
Robot Fleet: Based on different kinds of robots, the division of labor is clear, each performs its own duties and each has a simple structure, low cost, high stability and high efficiency.



便捷安装：安装部署便捷，对场地要求低，货架采用标准安装工艺，结构简单。
Convenient Installation: Convenient installation and deployment, small ground reconstruction needed, standard installation process for racks, simple guide rail structure, no need for high installation accuracy to ensure smooth travelling of robots.



料箱到人：搬运颗粒度更精准，更高效，点对点精准料箱搬运，搬运逻辑更加灵活。
Goods to Person: Tote handling is more accurate and efficient, and eliminates the need for complex work stations and other peripheral equipments. The handling logic is more flexible.



运营成本低：采用高效能部件，整机设备功耗低，一人即可操作设备，人力投入少；标准模块化设计，维护成本低。
Low operating cost: Low power consumption and simple user interaction; Modularization design to save cost and reduce down time.



超高坪效：系统适配楼库、标准厂房、高位仓库等各种场景，采用标准料箱立体库货架，可实现超高密度存储。
Ultra High Space Utilization: 3-9 meters high dense storage by directly using standard racks in various buildings such as factories and warehouses.



无限柔性：可随业务订单结构及订单量，灵活增减机器人和储位数量。
Unlimited Flexibility: The number of storage locations and robots can be flexibly increased or decreased according to business growth, with maximum flexibility.

穿云箭产品参数

OmniFlow Parameter



慧仓穿云箭 OmniFlow

库体参数 Rack Parameter	尺寸 / Dimension		长 : 定制 宽 :2.5 米+ 高 :≤9 米 / Length: Customized Width: 2.5 m + Height: ≤ 9 m	
	机器人数量 / Robot Qty		项目定制 / Customization	
	存储形式 / Type		单深或双深 / Single or Double	
	工作站数量 / Workstation		可配置 / Configurable	
	存储量 / Storage Space		可配置 / Configurable	
机器人参数 Robot Parameter	机器人类型 / Robot Type		机器人类型 / Robot Type	
				
	巷道机器人 M400 SD		地面机器人 A400	
	尺寸 / Dimension		尺寸 / Dimension	
	800mm×850mm×360mm		☎	
	负载 / Load		负载 / Load	
	30 kg		30kg	
	负载尺寸 / Load Dimension		负载尺寸 / Load Dimension	
	600mm×400mm		600mm×400mm	
	通信方式 / Communication Mode		通信方式 / Communication Mode	
	无线通讯 / Wireless		无线通讯 / Wireless	
	定位方式 / Positioning Mode		导航方式 / Navigate Mode	
	编码器 + 扫码器 / Encoder + Barcode Scanner		惯性导航 + 二维码导航 / Inertial + QR Code	
	料箱检测 / Tote Inspection		避障方式 / Obstacle Avoidance Mode	
	传感器 / Sensor		激光雷达 / LiDAR	
	供电方式 / Power Mode		供电方式 / Power Mode	
	直流滑触线 / Contact Rails		锂电池 / Lithium Battery	
	驱动方式 / Drive Mode		驱动方式 / Drive Mode	
	伺服电机 / Servo Motor		伺服电机 / Servo Motor	
	物料处理 / Material Handling		物料处理 / Material Handling	
	夹抱式 / Push-pull		顶升式 / Lifting	

慧仓闪电播：灵活的高速智能立体分拣系统。适用于正向 / 逆向物流以及产线配料等应用场景。

A flexible high-speed intelligent 3D sorting system. It is suitable for application scenarios such as forward / reverse logistics and production line ingredients.

产品亮点 / Product Highlight

分拣效率
Sort Efficiency

1500+

件 / 小时 / Pieces / Hour

部署时间
Deployment Time

≤7

天 / Days

准确率
Accuracy

99.99

%

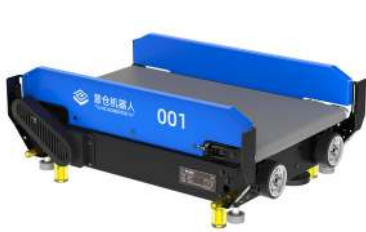
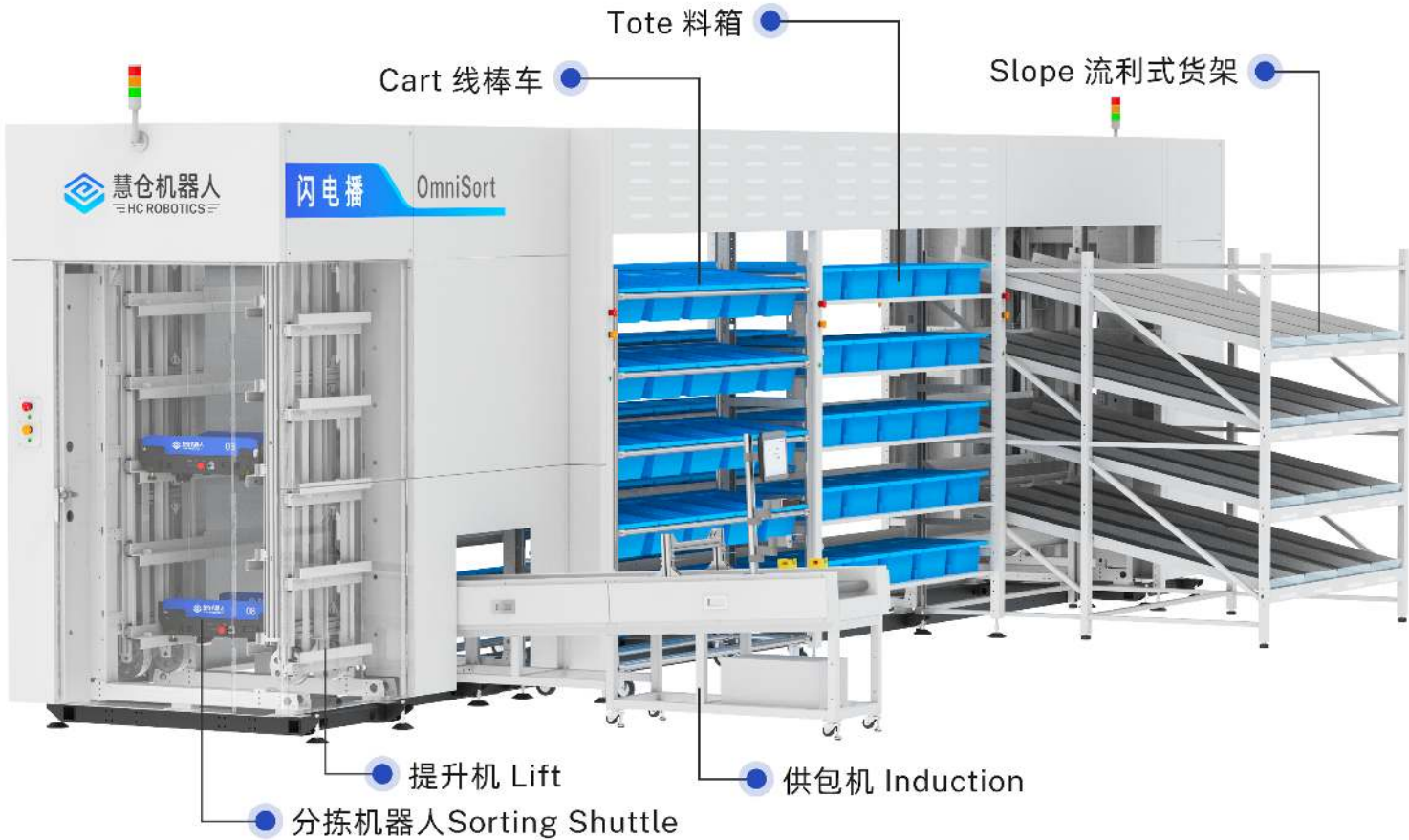
回报周期
Payback Period

≤2

年 / Years

产品特点 / Product Features

- 智能化立体分拣系统
Intelligent 3D sorting system
- 系统化设计，完全匹配客户定制化需求
Systematic design that fully matches customers' customized requirements
- 多元化接口，深度匹配客户系统
Comprehensive interfaces that deeply match customers' systems
- 支持复杂订单分拣、波次分拣及按行分拣
Support complex order sorting, wave sorting and line sorting



小号分拣机器人
Sorting Shuttle S



中号分拣机器人
Sorting Shuttle M



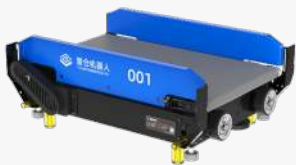
大号分拣机器人
Sorting Shuttle L

闪电播产品参数

OmniSort Parameter



慧仓闪电播
OmniSort

库体参数 Rack Parameter	尺寸 / Dimension	40m×5m×3.5m(长 8 至 40 米, 宽 3 至 5 米, 高 2 至 3.5 米可定制 / Length 8-40m, Width 3-5m, Height 2-3.5m configurable)		
	机器人数量 / Robot Qty	项目定制 / Customization		
	格口形式 / Type	料箱、线棒车或滑槽 / Tote / Cart / Slope		
	投包口数量 / Induction	可配置 / Configurable		
	分拣效率 / Sorting Efficiency	1500+ 件 / 时 / 1500+ pcs / hour		
	格口数 / Destination	项目定制 / Customization		
	扫码方式 / Scanning	手动扫码 / 自动扫码 / Manual Scanning/Automatic Scanning		
机器人参数 Robot Parameter	机器人类型 / Robot Type			
		小号分拣机器人 / Sorting Shuttle S	中号分拣机器人 / Sorting Shuttle M	大号分拣机器人 / Sorting Shuttle L
	尺寸 / Dimension	620mm×490mm×260mm	670mm×570mm×260mm	960mm×660mm×310mm
	负载 / Load	5 kg	5 kg	8 kg
	负载尺寸 / Load Dimension	400mm×320mm×(5-300)mm	500mm×410mm×(5-300)mm	750mm×500mm×(10-300)mm
	通信方式 / Communication Mode	无线通讯 / Wireless	无线通讯 / Wireless	无线通讯 / Wireless
	导航方式 / Navigate Mode	编码器 + 传感器 / Encoder + Sensor	编码器 + 传感器 / Encoder + Sensor	编码器 + 传感器 / Encoder + Sensor
	避障方式 / Obstacle Avoidance Mode	传感器 / Sensor	传感器 / Sensor	传感器 / Sensor
	供电方式 / Power Mode	直流滑触线 / Contact Rails	直流滑触线 / Contact Rails	直流滑触线 / Contact Rails
	驱动方式 / Drive Mode	伺服电机 / Servo Motor	伺服电机 / Servo Motor	伺服电机 / Servo Motor
	物料处理 / Material Handling	皮带式 / Roller Belt	皮带式 / Roller Belt	皮带式 / Roller Belt

智能仓储 / Intelligent Warehousing

解决方案 / Solution



降本增效，赋能智能仓储

Warehouse automation with boosted efficiency

智慧仓储解决方案涵盖了慧仓穿云箭和慧仓旋风库存储 / 拣选系统、慧仓闪电播分拣系统，由“人到货”变为“货到人”模式，变平面为立体，大幅节省人员，提升空间利用率，提高操作效率，降低出错率，实现降本增效。The smart warehousing solutions cover OmniFlow, CycloneStore storage / picking system and OmniSort sorting system, which change the model from "person to goods" to "goods to person". The storage space is changed from plane to 3D, which greatly saves personnel, improves space utilization, improves operation efficiency, reduces error rate, achieves cost reduction and efficiency improvement.

高效货到人 Highly efficient goods to person



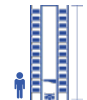
提高 3-4 倍人效
作业准确率高达 99.99%
Improve working efficiency
accuracy could be 99.99%

多业务形态支持 Multi-service mode support



支持 2B/2C/ 退货
等多种业务形态
Support 2B/2C/return
various service

提升存储密度 Improve storage density



提升 100-300% 存储密度
提高仓库空间利用率
Improve 100%-300%
storage density

快速部署 Rapid deployment



急速响应业务需求，
实现 30 天部署，一周上线
achieve 30-day deployment
and go online in one week

提升分拣效率 Improve sorting efficiency



分拣效率
1500+ 件 / 时
Sorting efficiency
1500 pieces / hour

模块化设计 Modular design



易扩展、易升级、易搬迁
从容应对市场及需求变化
Easy extension, easy
upgrade, easy move

可视化人机交互 Visible HMI



配备可视化平板
实现数字化信息化管理
Apply tablet / PC
achieve data visualization

高投资回报率 High ROI



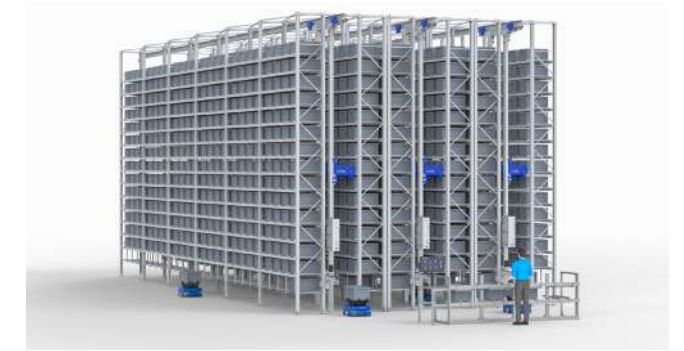
优化流程，提高效率
缩短投资回报周期
Optimize the SOP, improve
efficiency

集成特点 / Solution Features



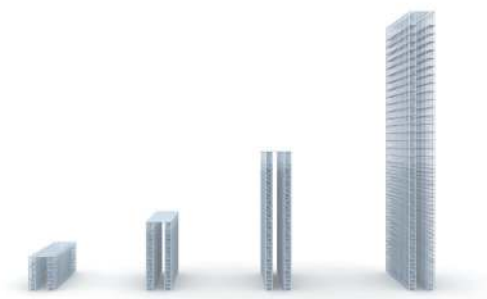
集成经验丰富：超过 300+ 套设备和各集成商配套

Rich in integration experience: Over 300+ sets of equipment have been integrated with various integrators



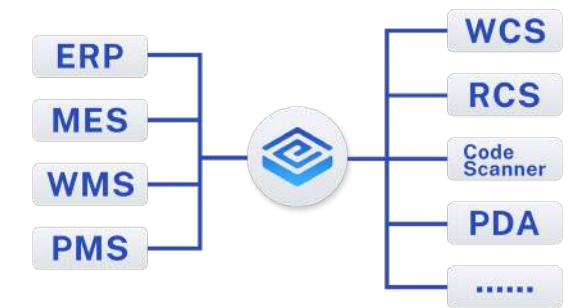
标准的设备配置：穿云箭和闪电播配置标准的设备接口方式，便于和上下游对接

Standard equipment configuration: The "OmniFlow" and "OmniSort" are configured with standard equipment interface modes, which facilitates docking with upstream and downstream systems



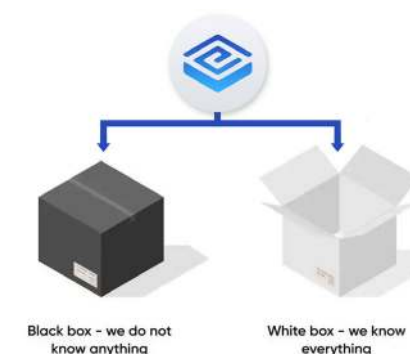
标准的解决方案：采用标准化模块设计，针对不同项目仅做少量调整

Standard solutions: Adopt the design of standardized modules, with only a few adjustments made for different projects



标准的软件接口：系统具有标准、兼容性强的软件接口

Standard software interfaces: The system has standard and highly compatible software interfaces



支持白盒 / 黑盒模式：控制系统支持白盒 / 黑盒模式，满足各种控制要求

Support for white-box and black-box modes: The control system supports white-box or black-box mode, fulfilling various control requirements



定制化：可以根据客户需求做出相应调整，满足集成商、客户需求

Customization: Corresponding adjustments can be made according to customers' needs to meet the requirements of integrators and customers



冷链配送分拣

Cold chain distribution and sorting

慧仓闪电播
HC OmniSort

慧仓闪电播
HC OmniSort

鞋服分拣

Shoes and garments sorting

项目介绍 / Project Introduction

本项目主要处理冷冻食品的分拣和发货任务。项目采用了多套慧仓闪电播设备。这些设备不仅能够大幅提升订单分拣的准确率和效率，还能显著减少对人工的依赖，同时，通过优化仓库的空间利用率，项目场地使用面积也得以减少。

This project mainly undertakes the tasks of sorting and dispatching frozen foods. Multiple sets of HC Robotics' OmniSort equipment have been adopted in this project. These devices can not only greatly improve the accuracy and efficiency of order sorting, but also significantly reduce the reliance on manpower. Meanwhile, through optimizing the space utilization rate of the warehouse, the occupied area of the project site has also been reduced.

项目介绍 / Project Introduction

本项目客户为提升订单分拣效率，降低错误率，增强仓库自动化，从慧仓引入闪电播，为门店配货、线上网店订单和逆向物流提供自动化分拣。慧仓闪电播有效提高了仓库自动化水平，改善了对业主的服务质量。

The project improves the efficiency of order sorting, reduce the error rate and enhance the warehouse automation, the client introduced the "OmniSort" from HC Robotics to provide automated sorting for store replenishment, online store orders and reverse logistics. The "OmniSort" of HC Robotics has effectively improved the level of warehouse automation and enhanced the service quality for the owner.

项目亮点 / Project Highlight

- 分拣效率 1500 件 / 小时
Sorting efficiency 1500 pieces/hour
- 采用纸箱作为格口，直接打包发货
Use carton boxes as destinations, after finished it can be packed and ship directly
- 订单分拣准确率 99.99%
Sorting accuracy 99.99%
- 节省 50% 人工和场地
Save 50% of labor and space



项目亮点 / Project Highlight

- 采用大容量滑槽格口
Slope type destination
- 支持 to B / to C / 退货分拣
Support B2B, B2C and return goods sorting
- 增强的条码识别配置
Enhanced barcode recognition configuration
- 多供包口投递
Multiple Induction conveyor





图书分拣 Book sorting

慧仓闪电播
HC OmniSort

慧仓闪电播
HC OmniSort

食品分拣 Food sorting

项目介绍 / Project Introduction

本项目集成 RFID 产品及应用技术，用于分拣图书商品。配合上游自动来料，实现订单高效分播，格口料箱自动绑定及解绑，减少人工冗余重复操作，优化订单履约时效，提升企业形象。

This project integrates RFID products and application technologies for sorting books. Cooperating with upstream automated material delivery, it enables efficient order distribution and automatic binding and unbinding of bins, reducing redundant manual operations, optimizing order fulfillment timelines, and enhancing the company's image.

项目介绍 / Project Introduction

本项目主要为某品牌咖啡门店配送散货商品分拣项目。慧仓为客户定制系统和研发新的货品处理硬件，优化咖啡散货商品分拣流程，提高分拣效率至 3000 行 / 小时，助力荣庆物流提升仓储运作能力与服务质量。

This project primarily involved sorting bulk goods for delivery to a certain brand's coffee shops. HC Robotics customized the system and developed new goods handling hardware to optimize coffee's bulk goods sorting process, increasing sorting efficiency to 3,000 order lines per hour and helping Rongqing Logistics enhance its warehousing operations and service quality.

项目亮点 / Project Highlight

- 对接上游自动来料
Connect with upstream automatic material
- 料箱自动绑定、解绑
Automatic binding and unbinding of material boxes
- 格口料箱特殊设计，降低图书商品破损率
Special design of the grid material box reduces the damage rate of books and goods
- 提升订单履约时效
Improve order fulfillment time



项目亮点 / Project Highlight

- 人工仓“秒”变自动化仓
Manual warehouse becomes automated warehouse
- 减少分拣错误率
Reduce sorting error rate
- 提高品牌方满意度
Improve brand satisfaction
- 降低门店投诉
Reduce store complaints





鞋服电商分拣

E-commerce sorting of shoes and apparel

慧仓闪电播
HC OmniSort

慧仓闪电播
HC OmniSort

3C 分拣

Sorting of 3C electronic products

项目介绍 / Project Introduction

本项目采用多台慧仓闪电播形成分拣矩阵，用于电商配送中心订单履行。配合订单拣选策略，实现了订单高效分播，并降低人员依赖性，提升订单履行准确率，提高了运营质量。

This project adopts multiple HC Robotics "OmniSort" devices to form a sorting matrix, which is used for order fulfillment in the e-commerce distribution center. In combination with the order picking strategy, it has achieved efficient order sorting, reduced the dependence on personnel, improved the accuracy of order fulfillment, and enhanced the operational quality.

项目介绍 / Project Introduction

本项目用于分拣 3C 小件商品，传统的人工分拣，不仅效率低下，准确率得不到保障，商品外包装容易损坏，而且受限于人员流动性过大，使得人工成本上升。上线慧仓闪电播后，这些缺陷得到了大幅改善。

This project is used for sorting small 3C electronic products. In traditional manual sorting, not only is the efficiency low, but also the accuracy cannot be guaranteed. What's more, the outer packaging of the products is prone to damage. Besides, due to the excessive staff turnover, the labor cost has increased. After the "OmniSort" of HC Robotics was put into use, these shortcomings have been greatly improved.

项目亮点 / Project Highlight

- 采用多台闪电播实现订单的履行
Use multiple OmniSort devices to fulfill orders
- 支持多批次同时分播
Support simultaneous sorting for multiple batches
- 作业方式为批次分播后直接打包，流程简洁
The operation mode is to directly pack the goods after batch sorting, and the process is simple
- 提高了订单履行效率
The efficiency of order fulfillment has been improved



项目亮点 / Project Highlight

- 极致效率，精准分拣
Extreme efficiency, precise sorting
- 安全物流，品质保障
Safe logistics, quality assurance
- 显著降本，空间优化
Significant cost reduction and space optimization
- 灵活轻巧，部署快捷
Flexible and lightweight, quick to deploy





规划设计 / Planning & Design

需求调研、数据分析、系统设计及仿真
Demand survey, data analysis, system design, and simulation



系统集成 / System Integration

细化设计、系统接口、施工方案
Detailed design, system interface, and construction



设计制造 / Design & Manufacturing

软件及电控设计开发、设备设计制造
Software, electronic system, equipment design, and manufacturing



安装调试 / Installation & Commissioning

设备安装调试、项目管理
Equipment installation and commissioning, project management



验收交付 / UAT

用户培训、系统爬坡及验收
User training, system ramp-up, and acceptance



售后服务 / After-sales Service

定期巡访、系统维护、备件供应
Regular visits, system maintenance, spare parts supply

为支持客户对慧仓系统和设备的使用及维护便利，我司配备专业的售后服务团队，成员由机械、电控、软件等相关领域的资深工程师组成，团队骨干具有多年从业经验。所有售后服务人员均定期接受针对不同设备的专业培训，在设备维护、保养及应急抢修方面积累了丰富的实战经验。

In order to support customers to use and maintain HC system and equipment conveniently, our company has established a professional after-sales service team. Our team includes senior engineers in mechanical, electronic control, software, and other related fields. All the after-sales service team members have received professional training for different equipment and accumulated rich theoretical and practical experience in equipment maintenance, and emergency repair.



7 × 24 小时电话服务
24/7 Hotline



远程在线技术支持
Remote online technical support



备件紧急供应体系
Spare parts emergency supply



本地化技术支持
Localization support



技术交流培训体系
Technical exchange training



定期巡访维护
Regularly visit and maintain

服务网络 / Global Footprint

