

Transforming Logistics with Cutting-Edge AI & Robotics Technology Based on Global Patents

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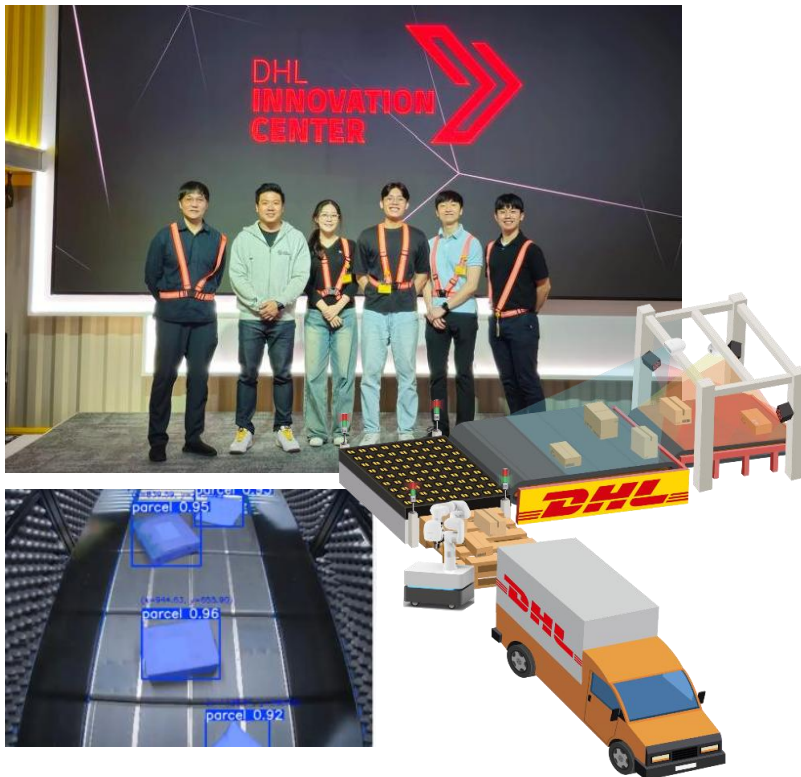
piRobot ™

Logistics-as-a-Service

Introducing
Our
Solution



A Great Start: Global Recognition and Growth



2023



Top Excellence in NVIDIA Collaboration



ASUS Global Startup Challenge Award

2024



K-Startup Center Excellence Award



AI Robot Vision Development Contract

2025



AI Logistics Automation Contract



Target Market

Global logistics operations are rapidly automating repetitive manual processes using AI vision and robotics.



Our Solution

piRobot™ – A full-stack AI logistics automation solution using edge devices and cloud platforms, automating the entire process from inbound to outbound.



Key Differentiators

Modular, patent-backed architecture for easy integration with diverse systems and Flexible “Pay-as-you-Use” SaaS pricing.



Social impact

Reduces manual labor, enhances safety, and supports vulnerable workers.



External Drivers – Industrial Transformation and Societal Challenges

- 43% of logistics time wasted in manual sorting
- 16 annual deaths from overwork in parcel delivery
- Industry-wide push to replace repetitive labor with automation



Internal Drivers – Strategic Shift in Technology and Global Demand

- Strategic shift from generic AI to Deep Tech (AI Vision + Robotics)
- Developed in response to specific requests from DHL, CJ, etc.
- Verified by national accelerator programs – now scaling to contracts





Logistics Automation Market Expansion

- Post-COVID shift from public transit to logistics.
- Logistics automation market is 8x larger than transport.
- Software/Edge-focused flexibility as key differentiator



Target Market & Clients

- Key verticals: logistics centers, sorting & automation
- Key clients: DHL, CJ Logistics, UAE Emirate Post
- High demand for modular AI-vision robotics

\$1.25 Trillion

Logistics Automation



Proof of Demand

- DHL: Ongoing PoC for automated sorting and inspection
- CJ: Vision module integrated into conveyor system
- UAE Post: Partnered for AI-powered postal automation

\$3.8 Billion

Robot Vision





AI Robot Vision Capabilities

- Government-funded R&D: KRW 500M+, TRL 8 validated
- Developed object detection, inference & tracking without rules
- 11 domestic/international patents on AI edge, cloud, and robotics



Market-Ready Use Cases

- CJ Logistics: Contracted conveyor automation project
- DHL: PoC → Contract (SGD 40K) → Expansion roadmap
- UAE Post: Partnership in field trials



Product Maturity

- Lightweight modular design
- Compatible with On / Off-Robot setups
- Branded & refined as piRobot.





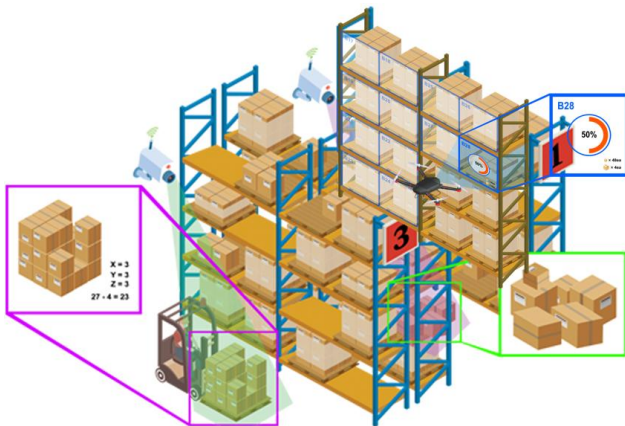
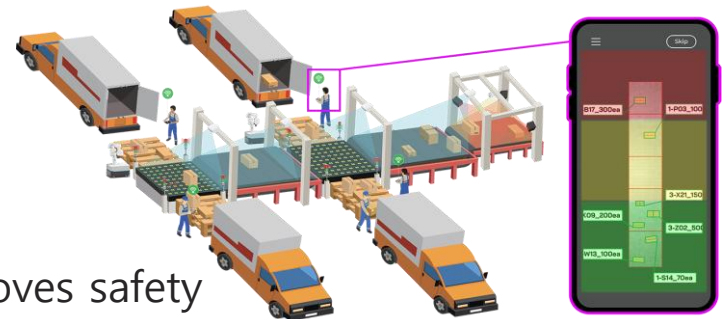
Strategy: Co-develop with Global Clients (DHL, YCH)

- Verified demand across varied logistics environments
- Supports conveyor (DHL), fixed-position (YCH), mobile workflows
- Unique Pick-to-Mobile method for flexible and accurate automation



APSR (Advanced Parcel Scanning and Routing)

- Sorting with a Pick-to-Mobile System
- AI vision to detect and classify parcels
- Automates up to 80% of sorting, improves safety



AIIR (AI Inspection by Robots)

- Real-time inspection of inventory
- Anomaly detection via AI
- Visual AI Agent linked with AI cameras



Deep Tech Export without Investment or Loans

- Achieved USD 610K exports and KRW 1.8B revenue using only tech assets
- Established legal entities in the US and Singapore



A Scalable Business Model for the Global Market

(B2B) Cloud Subscription & Hardware Sales

DHL PoC \$35,000

1,000

Clients

\$ 150

Monthly per client

\$ 150,000 / month

$1,000 * \$150 = \$210,000$

100

Devices

\$ 20,000

per device

\$ 2,000,000

$100 * \$20,000 = \$2,000,000$

(B2G·etc.) Site License, Consulting, Data Services

Visa Project \$96,210

\$ 20,000 + / Month

Average monthly contract value



Expansion via Captive Clients

- Scale contracts with CJ, DHL, YCH, UAE Post
- Roll out global SaaS model via US/Singapore base



Hybrid Revenue Model

- Subscription + Device Sales + Licensing
- Powered by NVIDIA Inception Program partnerships



Intellectual Property Holding Model

- Core patents support future M&A potential
- Global business-friendly intangible asset structure





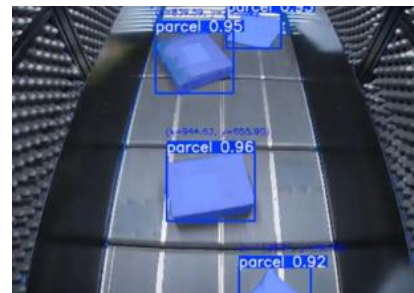
3-Phase Roadmap

1

Product Phase (2025.01 ~ 2026.06)

APSR·AIIR service with DHL, CJ

Product optimization & logistics adaptation

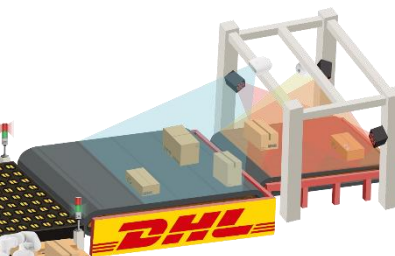


2

Position Phase (2025.11 ~ 2026.12)

Tech validation via NVIDIA partnership

Expand cross-selling channels



3

Market Phase (2026.06 ~ 2027.06)

Global piRobot brand launch

Secure contracts & partners



R^G

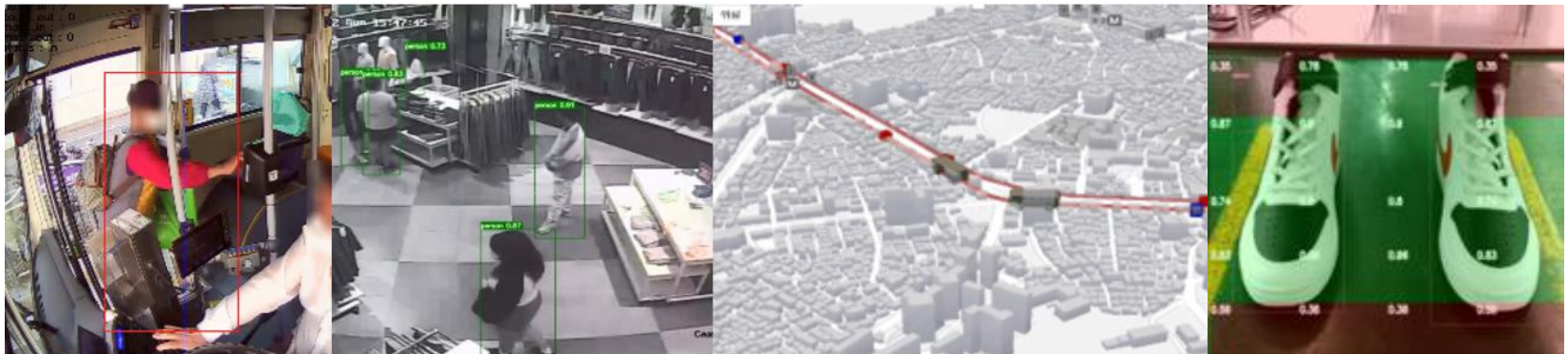
R&D-Driven Technological Capabilities

- Successfully completed TRL 8 validation through national R&D projects
- PoC and commercial projects with DHL, CJ Logistics, Nike, and Parkson
- Winner of the 2023 Global Startup Challenge with AI + Robotics solution

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Core Technologies of the piRobot Platform

- Edge-based AI for precision location tracking and robot coordination
- 11 patents filed globally across edge AI, cloud, and robotic vision systems
- Scalable to quality inspection, classification, and logistics via distributed AI





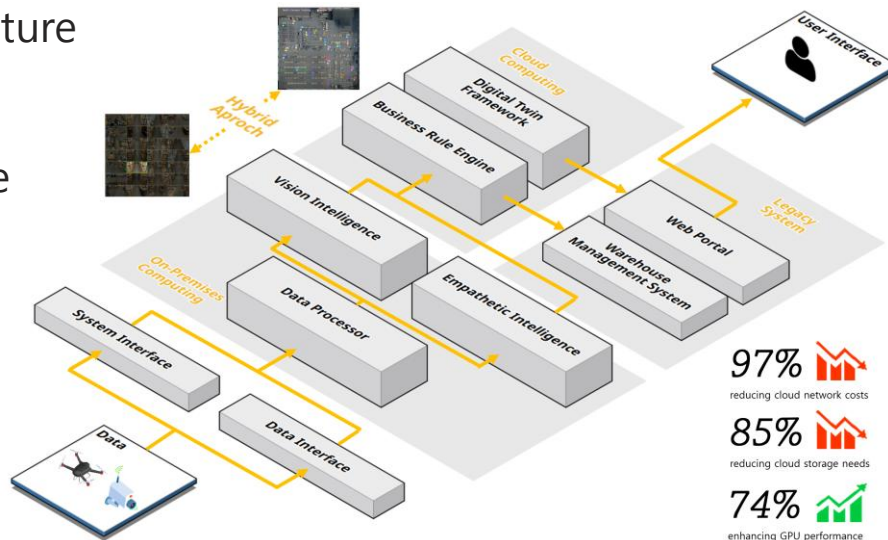
Fundamental Differentiation vs. Competitors

- Integrated AI vision and robotics platform vs. hardware-only competitors
- Flexible On/Off-Robot support + open API for broad customer compatibility
- Real-time control with edge-cloud distributed AI, globally scalable architecture



Optimized for both performance and cost

- Patent-Based Hybrid Architecture
- "pi-Intelligence" patented in Korea, the U.S., and Singapore
- 97% network cost reduction
- 85% cloud storage savings
- 74% GPU improvement





Deep Tech Startup with Strong R&D Focus

- Certified venture company investing 38%+ of revenue into R&D.
- Rapid trajectory: 2021 founded → NVIDIA collaboration · K-Startup excellence
- CEO with 30+ years in IT and 22+ years in mobility innovation



Strategic Global Partnerships

- Tech alliances with NVIDIA, VISA
- Joint research with NUS, Korea University
- PoC and contracts with DHL, CJ Logistics, UAE Post
- Operating local entities in Korea, Singapore and the U.S

2019.06



2019.09



2021.06



2021.08



2021.10



2022.03



2023.05



2023.10



2023.11



2023.12

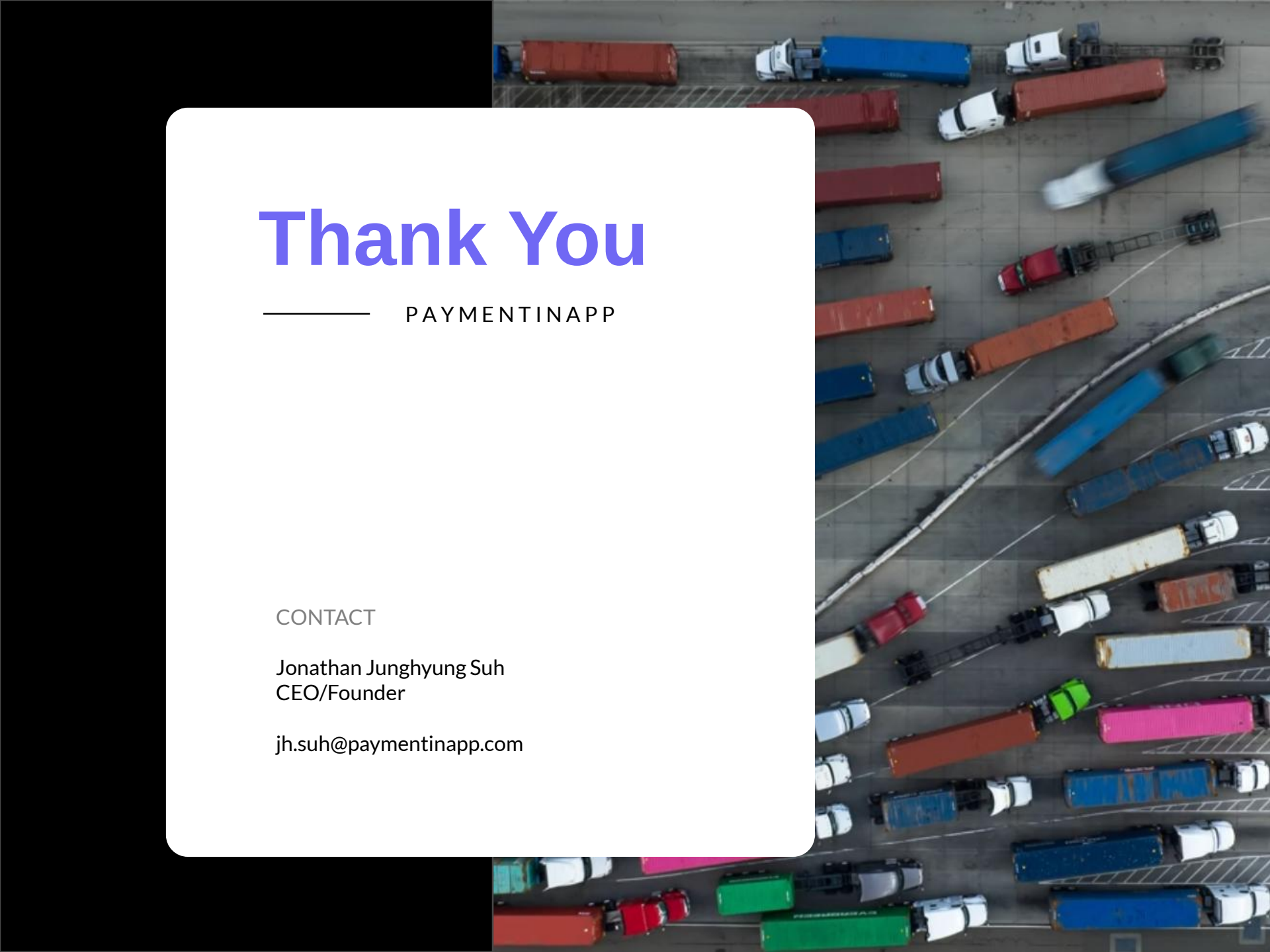


2024.01



2024.10





Thank You

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