



X-DYNAMICS

Providing the world's leading high-precision 3D industrial vision system

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X-Dynamics Profile

- About X-Dynamics
- X-Dynamics Milestones

 Founded in 2021 100+ Countries Served 50,000+ Units Deployed OEM/ODM Support

About X-Dynamics



X-Dynamics is a leading innovator in **high-precision 3D vision sensing** technologies, dedicated to transforming real-world data into actionable insights. Leveraging **self-developed ToF sensing, AI algorithms, and integrated hardware-software** solutions, we deliver reliable and privacy-compliant analytics for **passenger flow monitoring, smart transportation, retail intelligence, industrial automation, and robotics**.

Driven by continuous innovation and customer-centric development, X-Dynamics provides scalable OEM/ODM solutions and supports global partners with advanced sensing technologies, helping organizations improve operational efficiency, safety, and decision-making in increasingly connected environments.

X-Dynamics JOURNEY

DTOF laser range finding

- ◆ Long range (> 30m)
- ◆ Outdoor scenes



Applications scenarios: outdoor robots, humanoid robots, mobile robots, UAV, automatic production line

iToF people counter

- ◆ Installing height: 1.9m~7m
- ◆ accuracy: $\geq 98\%$
- ◆ both indoors and outdoors
- ◆ Passed CE, FCC certification



Application Scenarios: subways, buses, shopping malls, gate machines, room occupancy intelligent services

iTOF 3D area-array cameras

- ◆ Indoors, semi-outdoors
- ◆ Medium range(15m)
- ◆ Short range(5m)



Applications scenarios: logistics management, robots, rail traffic, safety protection, intelligent heavy industry, intelligent cockpit

- **Public transportation**
- **Shopping malls**
- **Building occupancy management**
- **Logistics**
- **Robotics**
- **Industrial automation**

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Why X-Dynamics

- X-Dynamics CAPABILITY & STRENGTH
- Core Technologies



X-Dynamics CAPABILITY & STRENGTH



R&D STRENGTH

- **50+** R&D Engineers
- **15%+** of sales revenue invested in R&D
- Self-developed ToF core technology & AI algorithms
- Hardware + Software integration



Founded in
2021



100+
Countries
Served



50,000+
Units
Deployed



OEM / ODM
Support



CERTIFICATIONS



REACH
COMPLIANT



CORE TECHNOLOGIES



3D ToF Sensing

Accurate depth, robust in
bright & dark environments



AI Analytics

Bidirectional counting,
occupancy, tailgating detection



Privacy Protection

No images captured,
GDPR friendly



Industrial Design

IP67, outdoor ready,
anti-light interference



GLOBAL PRESENCE

- Serving **100+** countries worldwide
- Local partners & system integrators
- Fast response & technical support



PRODUCT PORTFOLIO



People Counter



iTOF Camera



dTOF Module



Sensor Module

APPLICATIONS



Smart
Transportation



Retail
Analytics



Smart
Buildings



Industrial
Automation

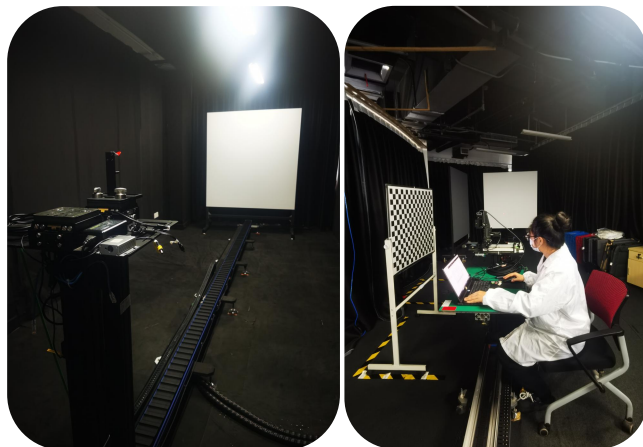


Robotics
& Drones

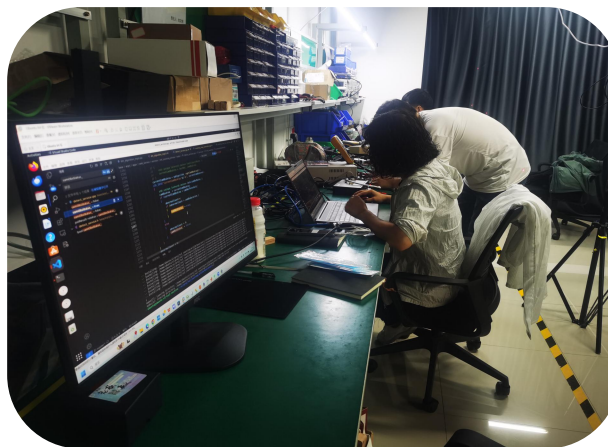


Logistics
Management

Self-developed Technology



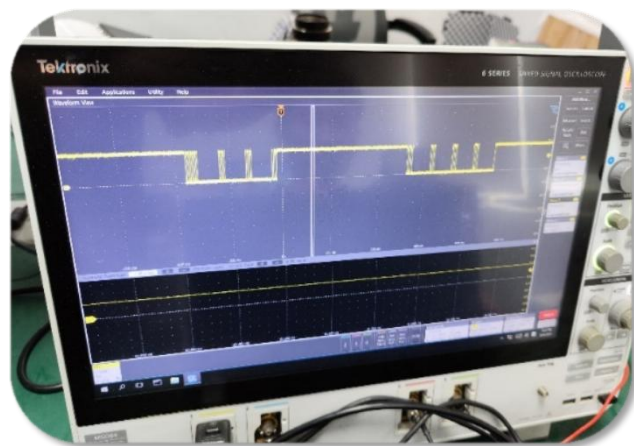
Calibration darkroom



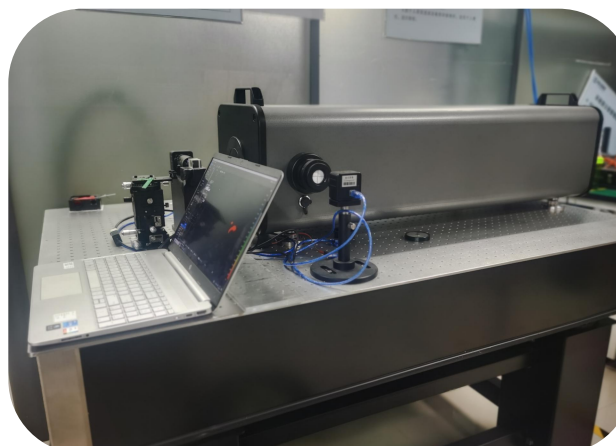
Test laboratory



Production department



High-speed oscilloscope



Collimator



Temperature & humidity chamber

X-Dynamics Core Technologies

Systematized solutions

- We accept customization based on user scenarios to deeply determine our software, algorithm
 - One stop service for both hardware and software providing

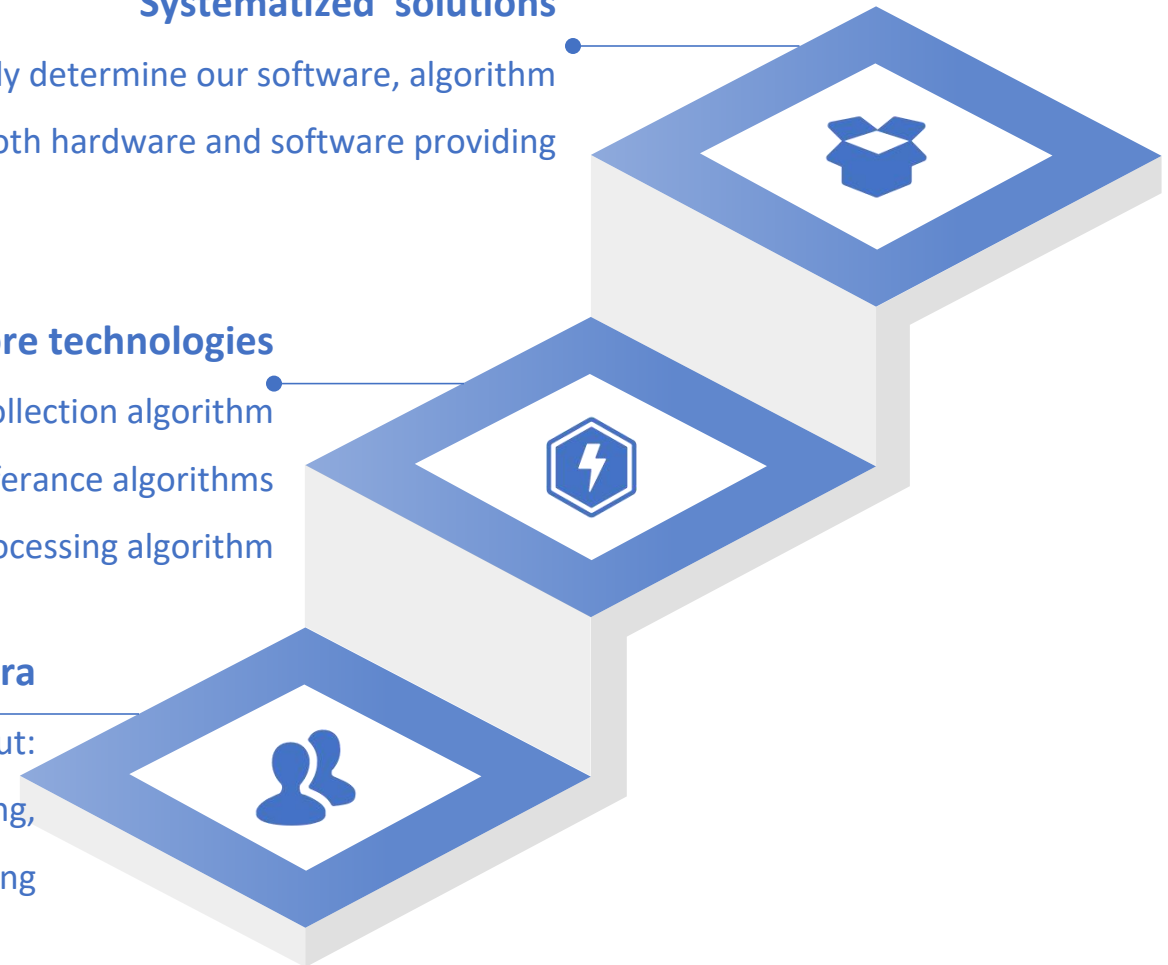
Self-owned core technologies

- Self-developed high precision calibration algorithm and collection algorithm
 - Anti-interference algorithms
 - Self-owned post-processing algorithm

Professional 3D industry camera

We have a variety of cameras, can meet all kinds of needs about:

Large field of view, High precision, Far detection ranging,
Standardized products, High reliability, Array imaging





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Product Portfolio

- Product Matrix
- X-D535 People Counter

Product Matrix

3D Depth Camera



Laser Range Finder Module



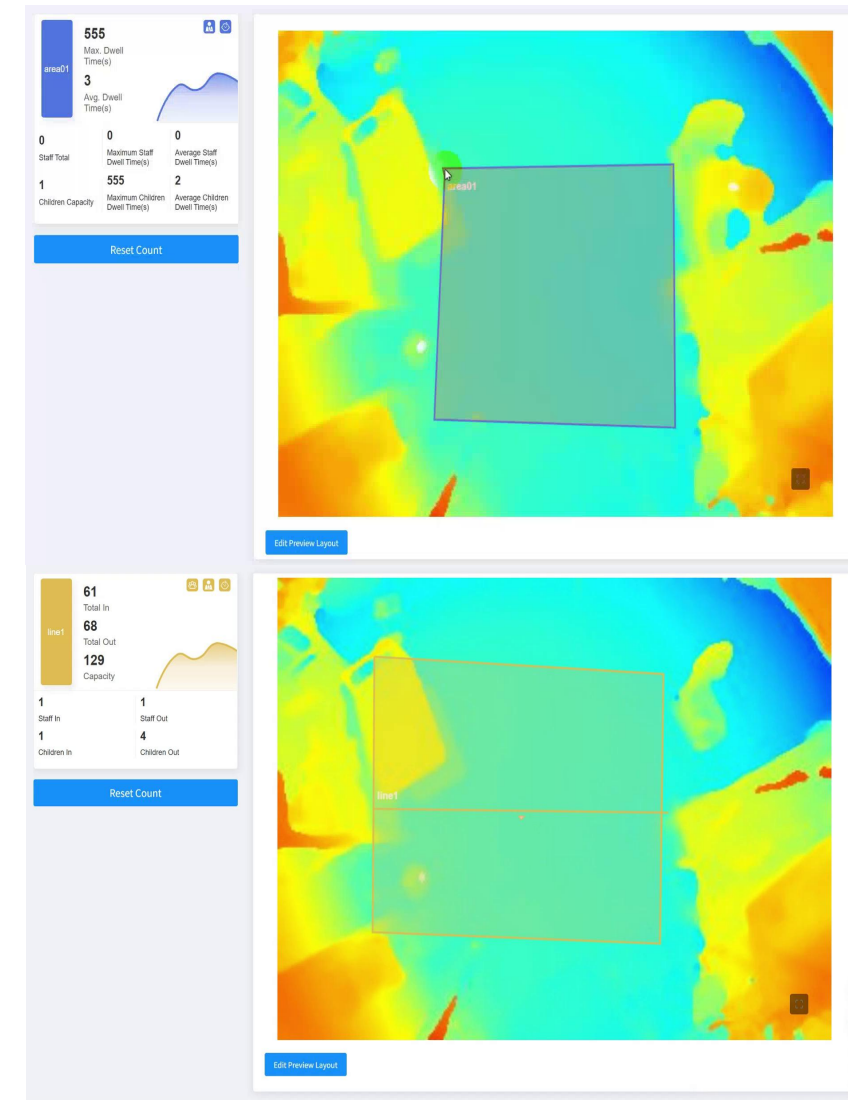
Product Family	Application
People Counter	Passenger Flow
iTOF Camera	Robotics
dTOF Module	Range Finding
Sensor Module	OEM Integration

MIPI Module



X-D535 People Counter

- ✓ 99.8% Accuracy
- ✓ Installation Height 1.9m–7m
- ✓ Bi-directional Statistics
- ✓ Tailgating Alarm
- ✓ Multi-zone Counting
- ✓ 1 Million Records Storage
- ✓ U-turn Detection/Loitering Detection



99.8% High Accuracy People Counting



01. Advanced 3D iToF sensing technology

02. Up to 99.8% counting accuracy

03. Reliable in high-density traffic scenarios

04. Supports bidirectional counting and multiple entrances/exits

05. Wanderer filtering to avoid duplicate counts

Unaffected by Ambient Lighting

Consistent performance 24/7, regardless of environmental lighting conditions



Based on active 3D ToF technology



Accurate detection in daylight and darkness



Immune to shadows and lighting changes



Ideal for indoor and semi-outdoor deployments



100% Privacy Compliant



No image storage



No facial recognition



Anonymous passenger flow analytics



GDPR-friendly solution

Advanced Analytics Beyond Counting



Turn traffic data into actionable business intelligence



Occupancy Monitoring



Dwell Time Detection



Heat Map Analysis



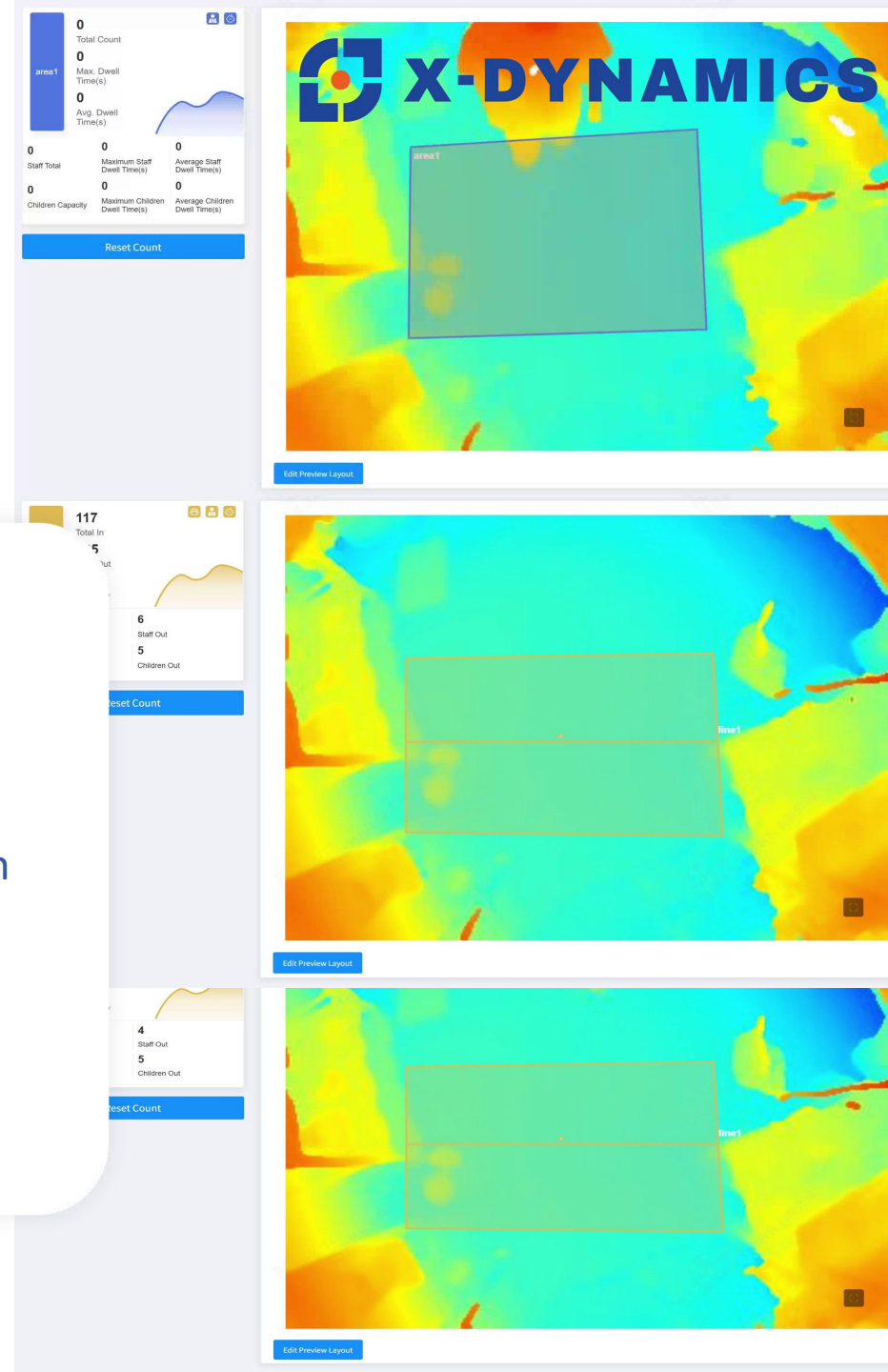
Adult / Child Classification

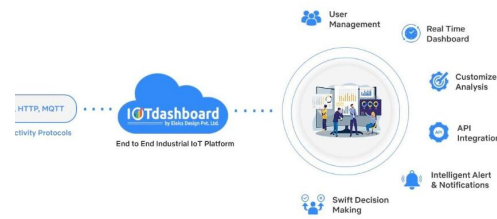
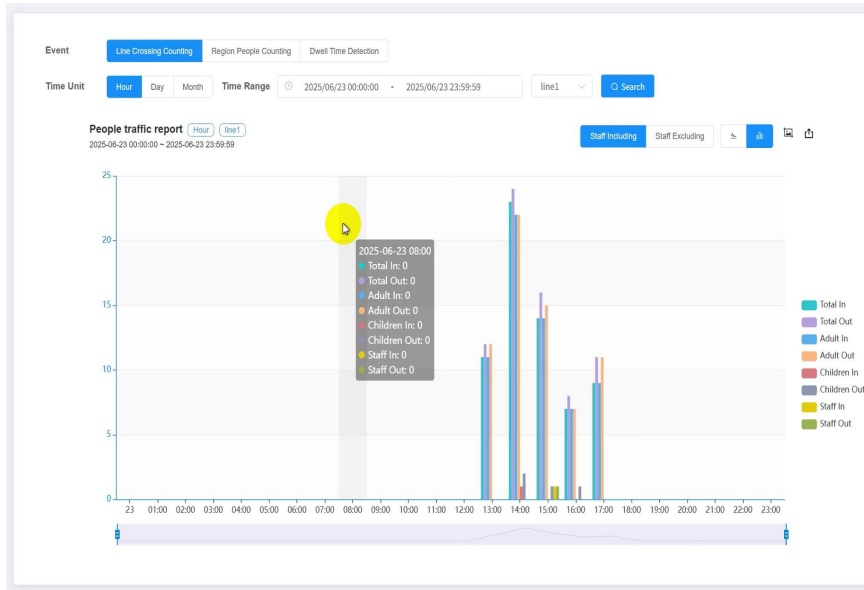


Employee Identification



Regional People Counting





Easy Integration for Any Platform

Seamlessly connect data to your existing platform



MQTT / HTTP
Data Push



Ethernet &
Wi-Fi
Connectivity



RS485
Communication



Cloud
Platform
Ready



API
Integration
Support

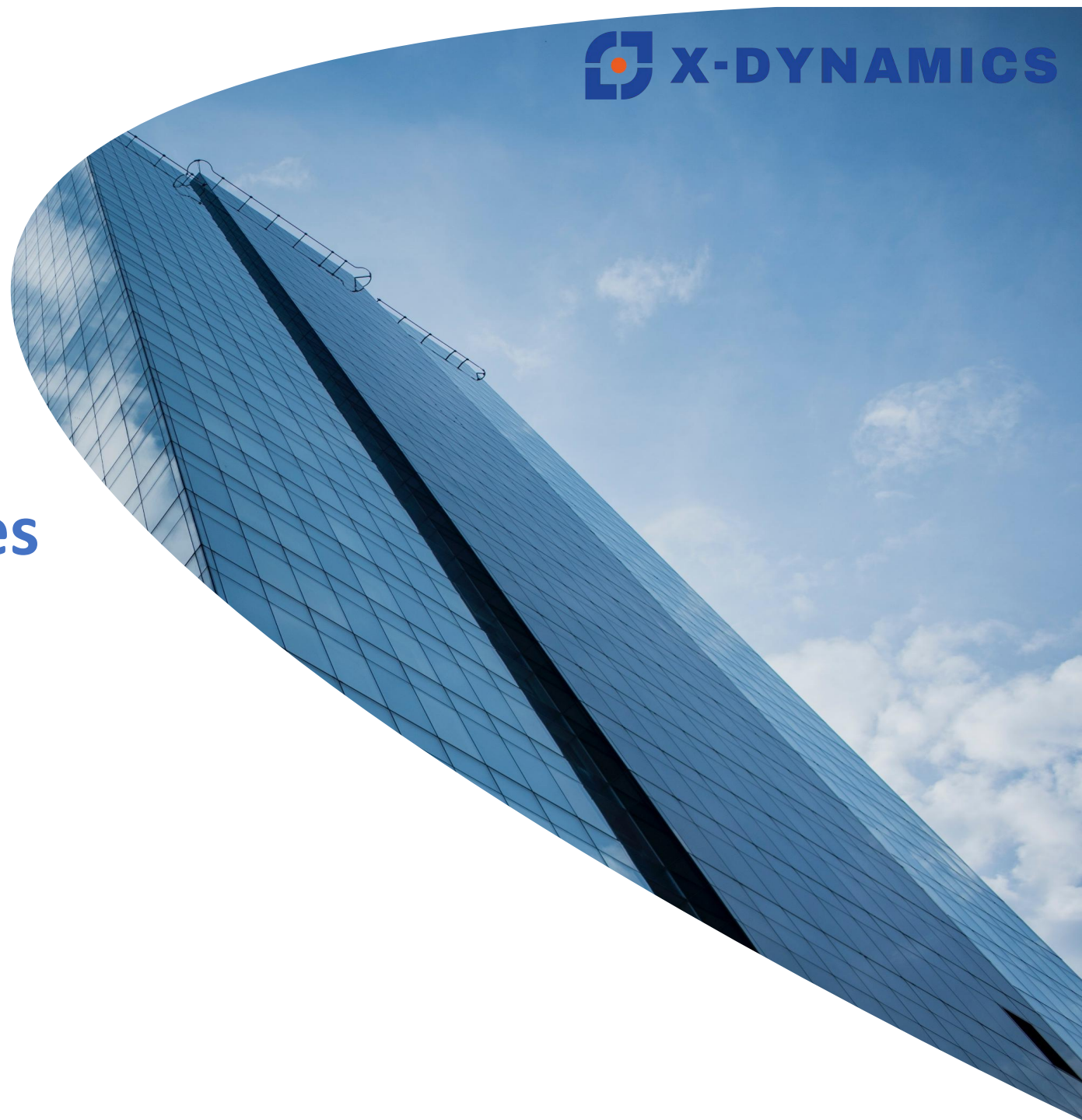
X-D535 Parameter

X-D535	TOF	Parameter	X-D535L	X-D535H
		Installing height	1.9m~3.5m	3.5m~7m
		Detection distance	0.2m~3.5m	0.2m~7m
		FOV	H 98°x V 80°	H 60°x V 45°
		Area headcount	Support, up to 4 detection zones plotted simultaneously	
		Headcount statistics	1,000,000 records	
	Interface	Ethernet port	Million Ethernet, Interface100Mbps(4g alternative)	
		Power supply	12V	
	Work environment	Operating temperature	-20℃ ~ 50℃	
		Safty class	CLASS I	
		IP grade	IP 67	
		certification	CE, FCC	
	Functional parameter	Accuracy rate	100%	
		Built-in algorithm	People counting algorithm,bothway statistics algorithm,trailing warning algorithm	

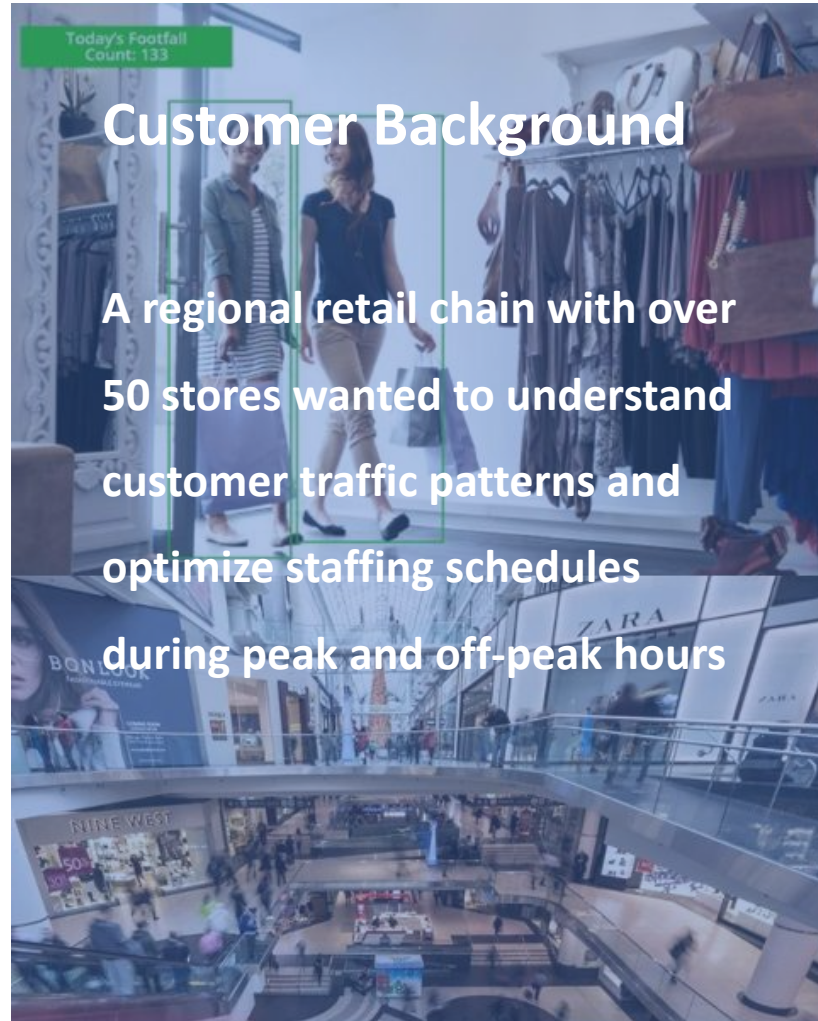
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Success Stories

- Bus
- Bosch Warehouse



Retail Chain Traffic Analytics



Challenge

- Manual counting was inaccurate and labor-intensive
- Existing video-based solution suffered from lighting variations
- Need for GDPR-compliant people counting

X-Dynamics Solution

- Installed X-D535 at store entrances
- Enabled bidirectional counting and dwell time analysis
- Integrated traffic data into the retailer's BI platform through HTTP API

Results

- ✓ 99%+ counting accuracy
- ✓ Reduced manual reporting workload by 90%
- ✓ Improved staff scheduling efficiency by 20%
- ✓ Increased conversion rate through traffic-to-sales analysis

Smart Restroom Monitoring

01

Challenge

- Traditional PIR sensors could not provide accurate visitor counts
- Cleaning schedules were fixed rather than demand-based
- Facility managers lacked real-time occupancy visibility

02

X-Dynamics Solution

- Installed X-D535 at restroom entrances
- Configured real-time occupancy monitoring
- Connected visitor count data to the facility management platform

03

Results

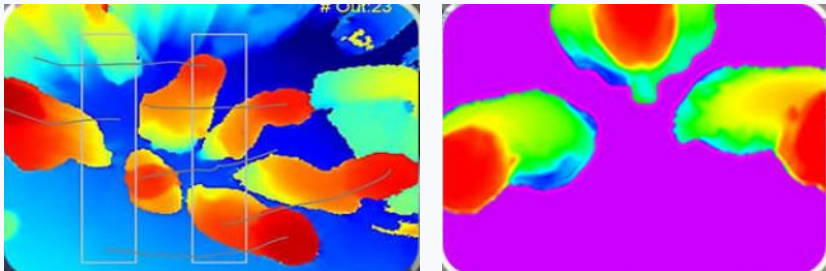
- ✓ Real-time occupancy visibility
- ✓ Automated cleaning alerts after predefined visitor thresholds
- ✓ Reduced unnecessary cleaning operations by 30%
- ✓ Improved user satisfaction and facility efficiency

Customer Background

A smart building operator needed a solution to monitor restroom usage and trigger cleaning operations based on visitor volume.



Public Transportation Passenger Counting



01

Customer

Urban Public Transportation Operator

02

Challenge

- Lack of accurate ridership statistics
- Difficulty optimizing routes and fleet allocation
- Requirement for reliable day/night operation

03

Solution

- Installed X-D535 onboard buses
- Enabled boarding/alighting counting
- Uploaded passenger data to central management platform

04

Results

- 98%+ passenger counting accuracy
- Improved route planning efficiency
- More accurate fleet deployment decisions



THANKS FOR WATCHING



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