FOORIR

Product Manual

3D People Counter

HX-CCD20

AI

PoE

AI

IN +1

OUT +1

P S L

POE

Core Technology

3D Binocular Vision

3D Binocular vision technology, as an important branch in the field of three-dimensional vision, is deeply inspired by bionics. It simulates the visual mechanism of human binoculars and captures and fuses three-dimensional image information of the surrounding environment through two lenses facing the same direction. This technology is based on the principle of triangulation and obtains the three-dimensional information of the object by constructing triangles between the observed object and the image planes of the two lenses. In a binocular vision system, as long as the relative position relationship between the two lenses and the coordinates of the object in the left and right images are known, the three-dimensional size of the object in the common field of view and the spatial position of the coordinate feature points can be calculated. Therefore, a typical binocular vision system usually consists of two lenses and corresponding image acquisition equipment.
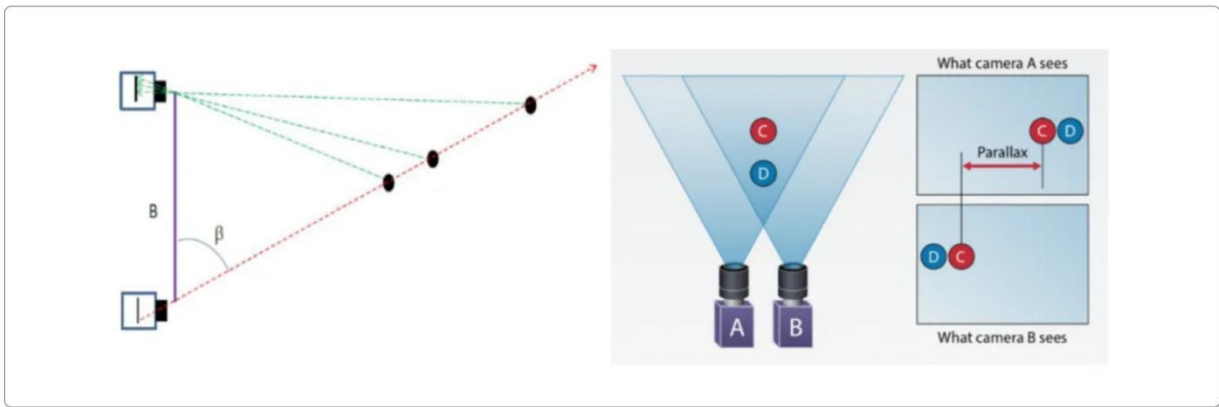
People Counting Based on Head and Shoulder Detection

The head and shoulders are used to detect and track human figures. When the center point of the head and shoulders crosses the pre-determined line segment, the passenger flow count is increased; as shown in the figure, action ① is entering, action ④ is leaving, action ②③ is passing, and action ⑤⑥ is turning back. It can also count the number of people staying in the passenger flow detection area in real time.
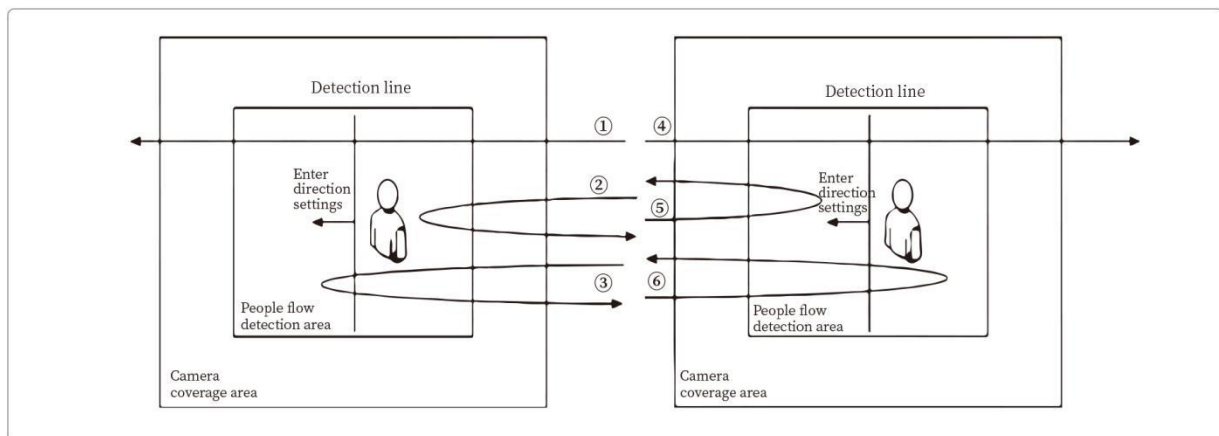
▌Core Highlights

The 3D people counter (HX-CCD20) uses high-precision 3D imaging technology to count the number of people in real time with an accuracy rate of up to 99%. It can identify people entering, exiting, passing through, staying, and returning, as well as collect data on adults and children, enabling in-depth data analysis. It is widely applicable in shopping malls, retail stores, public transportation, scenic spots, libraries, museums, restaurants, factories, supermarkets, industrial parks, buildings, and restrooms.

▌Privacy Protection

This 3D people counter, relying on stereo vision technology, is deployed in public places, focusing on accurate passenger flow statistics, and providing data support for efficient operation of the venue.

The device adheres to the bottom line of privacy protection, does not collect face recognition data, and only collects anonymous passenger flow data, such as personnel flow trajectory, length of stay, etc., for passenger flow statistics, and does not involve any personal information, which complies with GDPR.
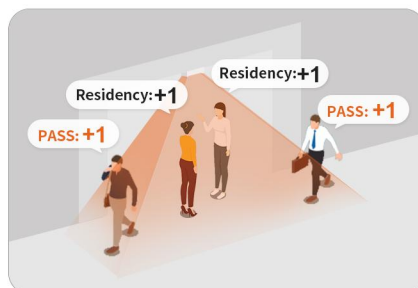
Product Features

FOORIR
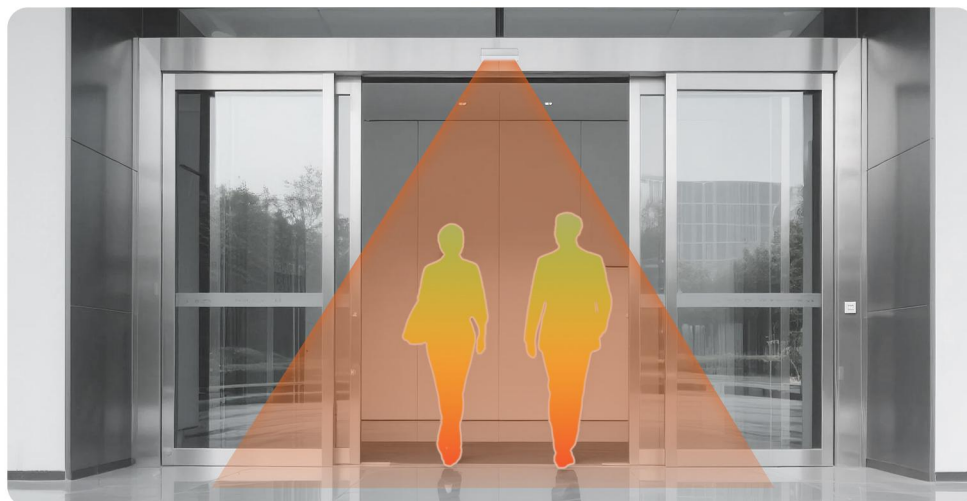
Real-time and Accurate Statistics

Real-time and accurate human body recognition with an accuracy rate of up to 99%, accurately filtering out children and other large objects.


Resident and Passing People Counting

Multi-dimensional statistics of the number of people staying in the specified area. People who enter the device detection area but do not actually enter the store and then leave will be identified as "passing by".
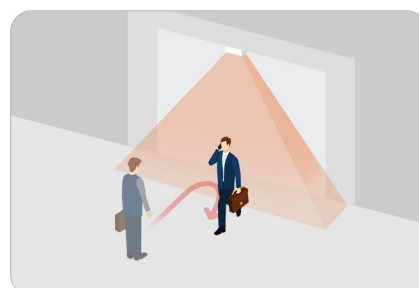

Reentry Statistics

Store personnel who enter the device detection area but do not completely leave the store and then return to the store will be identified as "returning".
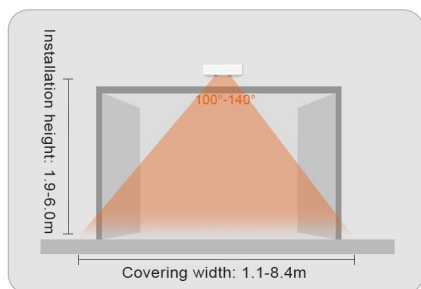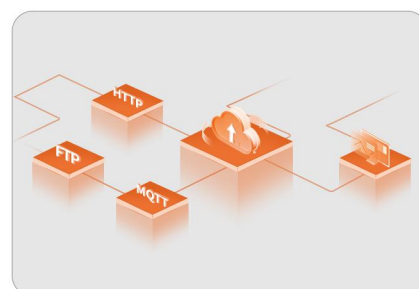

Automatic Zoom Wide area Coverage

Supporting software automatic zoom, the device supports an installation height range of 1.9-6m, a coverage range of 1.1-8.4m, and can adapt to different installation environments.
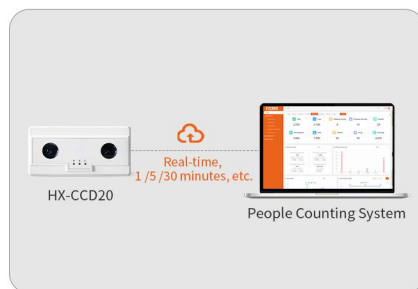
Data Upload Timeliness

The data upload server time can be customized to support real-time, 1 minute, 5 minutes, 30 minutes, etc.
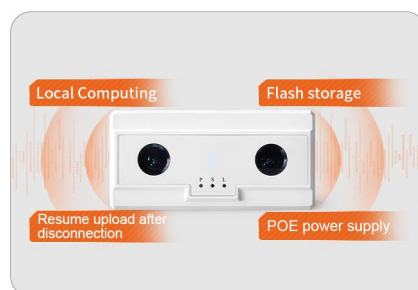

Multi-protocol Support

The device provides HTTP POST / HTTPS POST / FTP / SFTP / MQTT protocol data transmission, and supports secondary development data docking of the device.

Rich Open Interfaces

The device has rich local open application interfaces and RS-485 expansion support, allowing developers to integrate and develop flexibly and quickly.

Network Smart Devices

Supports local computing, no local server required, supports Flash offline storage, supports continued transmission after network disconnection, supports POE power supply, and supports wired/wireless connection.

IP66 Waterproof

The device adopts a splash-proof casing design to reduce equipment failure rate and enhance hardware reliability.

Functional Mode

FOORIR

Capacity Limitation Mode

When the number of people exceeds the set value, the device sends a signal to the alarm and the alarm sounds.

Limited number of people: 5

Number of people present: 6

Child Mode

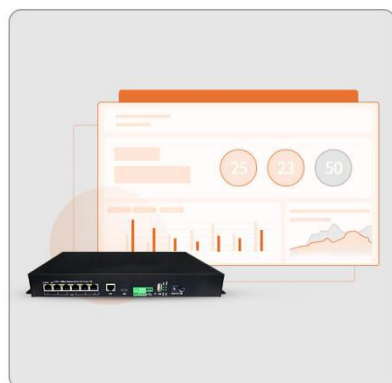After setting the height of children, people who are lower than the height will be recognized as children.

Child: +1

Aldult: +1

Control Mode

equipment works with relay, control a variety of electrical appliances.

Indicator Lights

Alarm

Access Control
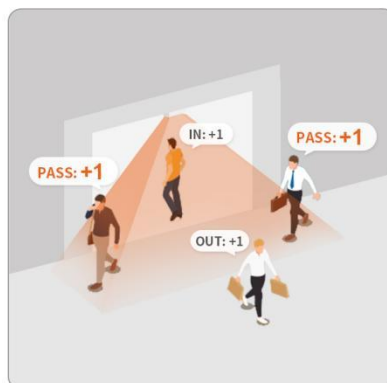
Light board

Induction door

Data Display Mode

The device and the host are matched to visualize the data.

25 23 50

Channel Mode

which can detect the number of people passing by the door and the number of people entering the store.
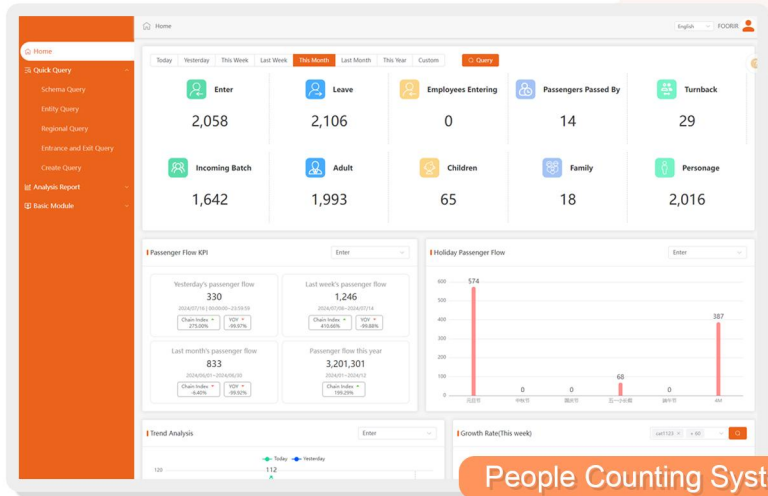
IN: +1

PASS: +1

PASS: +1

OUT: +1

Standalone Mode

The local data of the device can be stored for 90 days, can be exported, and can be used without network.

90 DAYS

Data Display

FOORIR

People Counting System

3D people counter data is uploaded to the cloud platform for visual management.
The cloud platform provides users with real-time quick query and multi-dimensional analysis reports to help make accurate operational decisions.

The query indicators include the number of people entering, leaving, passed by, turning back, adult and children, Employee in and out, gender, age, incoming batch, outgoing batch, the number of families and individuals, etc.

Quick query includes schema query, entity query, regional query, entrance and exit query, and users can also create custom queries.

The query dimensions can be selected as 5 minutes, half an hour, hour, day, week, month, year, and can be displayed according to user needs.
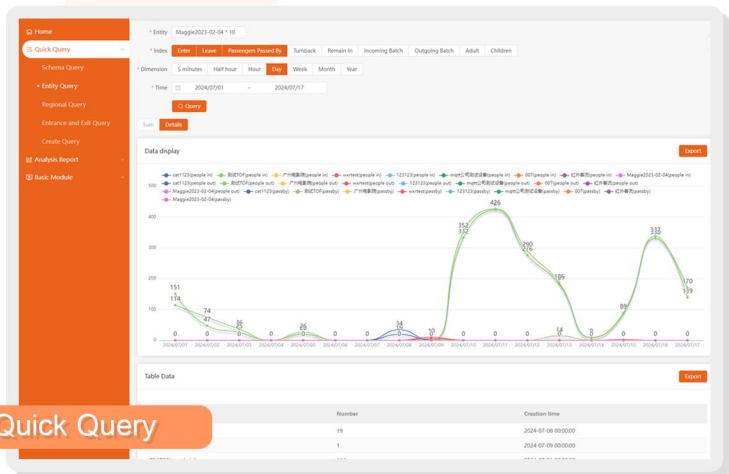
Quick Query
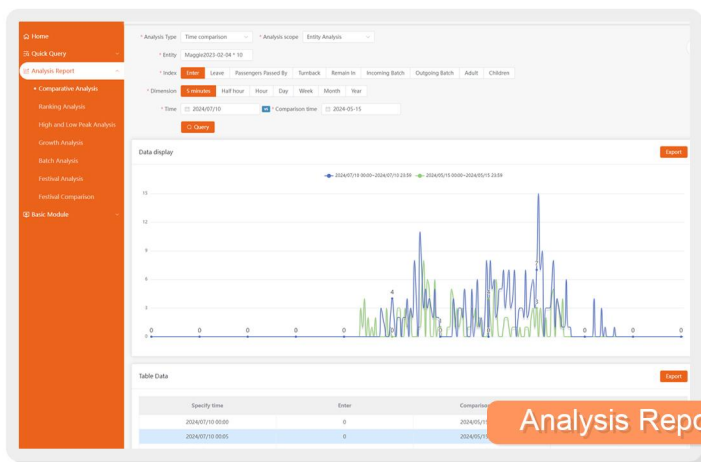
Analysis Report

The analysis report covers comparison analysis, ranking analysis, high and low peak analysis, growth analysis, batch analysis, festival analysis and festival comparison, presenting the analyzed passenger flow data in multiple dimensions.

Applicable Scenarios

The device acquires 3D depth information in real time through binocular stereo vision AI sensors, identifies head and shoulder features in complex scenes based on head and shoulder feature algorithms, and achieves accurate passenger flow statistics through human body tracking algorithms. It is widely applicable to shopping malls, retail stores, buses, scenic spots, libraries, museums, restaurants, factories, supermarkets, parks, buildings, smart toilets, exhibition halls, gyms, etc.

- Retail Stores
- Smart Toilet
- Library
- Bank
- Office Buildings
- Shopping Center
- Hotel
- Bus
- Factory
- Business Hall
- Clean Workshop
- Exhibition Hall
- Dining Room
- Gym
- Scenic Spots

Partners

FOORIR

We provide enterprises with expert teams, technical teams, marketing strategies, training support, product guarantees, and considerate services.

Clients	Public Transport	Retail Business	Smart Culture and Tourism
10000+	50+	400+	500+

CENTRALRETAIL | reeDer | A-SECURE | FORT DIGITAL (A SBO Licensed SMS Telecommunication Company) | GoDaddy

Inkryptis AI | pentagone™ | Nike | EYERIDE™ | RETAILOGISTS

www.ANTIvor.ru® (СОВРЕМЕННЫЕ РЕШЕНИЯ ДЛЯ РЕТЕЙЛА И ТОРГОВОЙ НЕДВИЖИМОСТИ) | BFL Best Buy® | Sumith | ZANDO. | Bata

PRODUCT.ME | Lippi | ts | DISTRI SEGURIDAD | CITITEX