Industry Solution

Healthcare

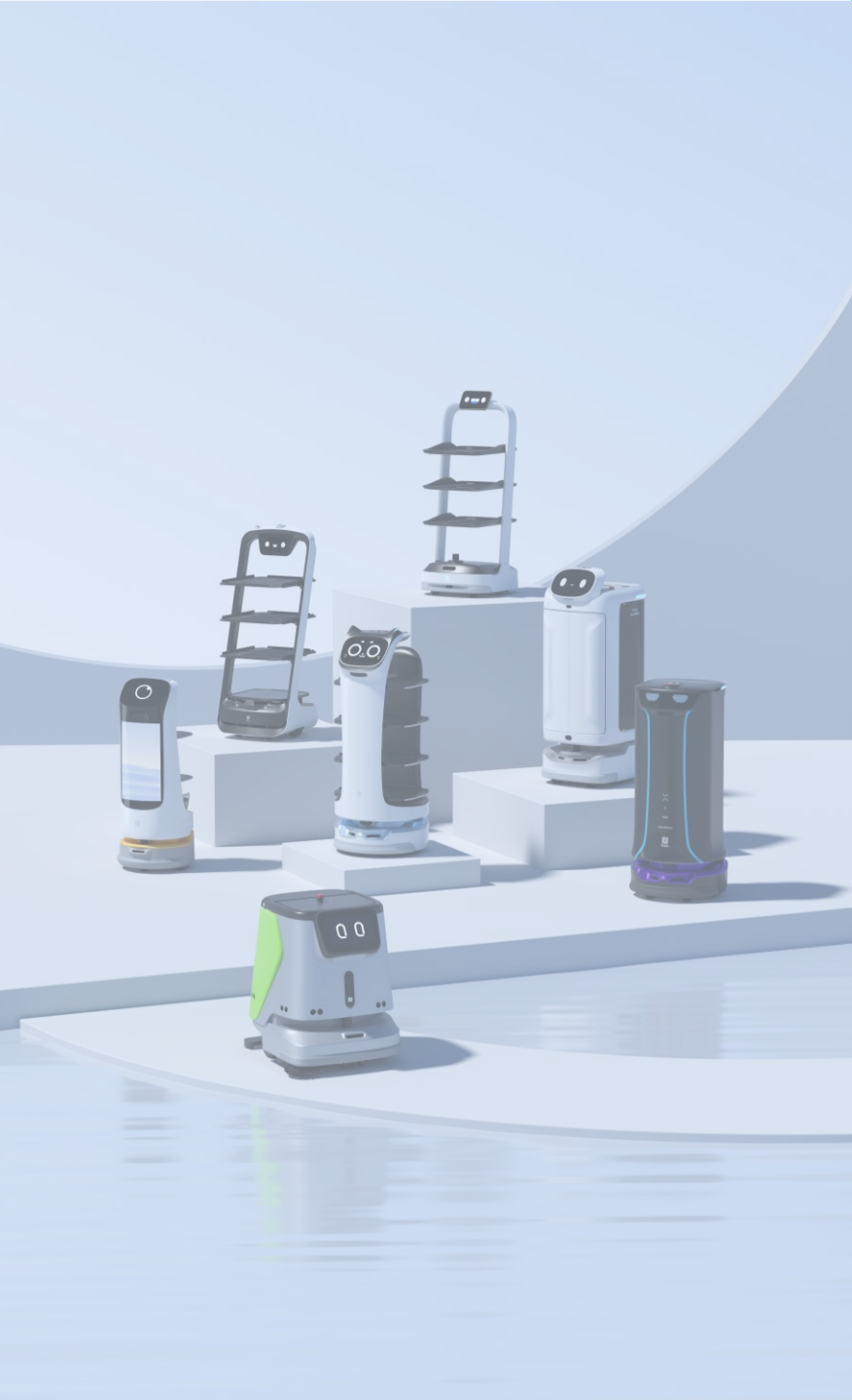/ Global Leading Robotics Company /

CONTENT

PUDU

2023

01

Industry Overview

Equipment

Pharmaceutical

Biotechnology

Veterinary healthcare

What's the healthcare sector ?

Any company involved in products and services related to health and medical care are represented in the healthcare sector and further segmented by type into 5 main industries. The industries include healthcare services, pharmaceutical drugs, medical equipment, biologics, and veterinary healthcare.

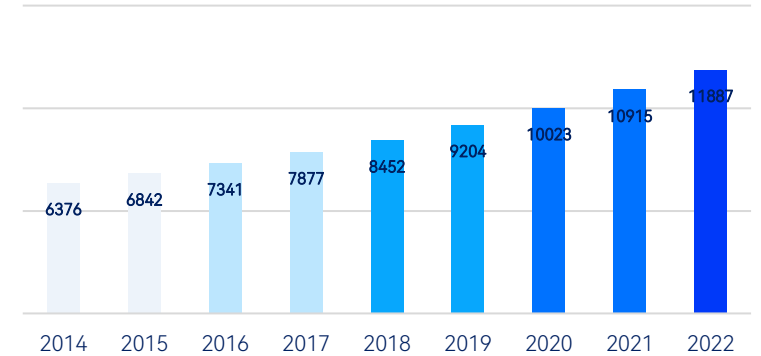* Resource from researchandmarkets.com

Healthcare services

How big is the healthcare sector ?

The healthcare market value reached nearly $8,452 billion in 2018, a growth of 7.3% since 2014. reaching almost $11,908.9 billion by 2022.

➢ Healthcare services were the largest segment of the healthcare market, accounting for **79.4%** .

Global healthcare sector market size
From 2014 to 2022 (USD Billion)

| 2014	2015	2016	2017	2018	2019	2020	2021	2022
6376	6842	7341	7877	8452	9204	10023	10915	11887

* Resource from Research And Markets.com

The global healthcare services market grew from $7,500 billion in 2022 to $7,976 billion in 2023 at a compound annual growth rate (CAGR) of 6.3% and also expected to grow to $9,816.85 billion in 2027 at a CAGR of 5.3%.

➢ The healthcare services is composed of three sections: **professional medical services** (hospital, clinic, ophthalmology, dental, assisted reproduction, etc.), **medical cosmetology** (medical beauty, hair transplant, etc.), and **health management** (physical examination, maternity, sports health care, nutritional psychology, etc.).

Global healthcare service market size
With a forecast from 2022 to 2027 (USD Billion)

2022	2023	2024	2025	2026	2027
7500	7976	8237	8673	9133	9617
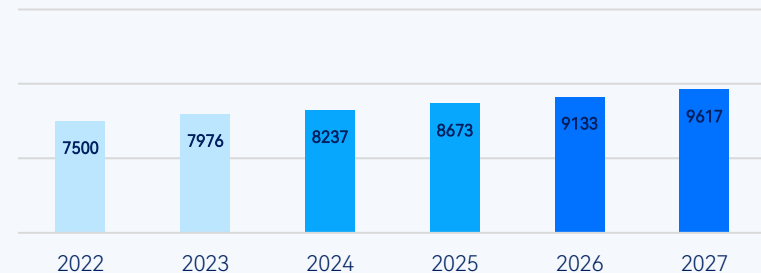
* Resource from ReportLinker

PUDU

2023

Pain points in healthcare service

Professional medical services

Challenges of an aging society

With the increasing trend of population aging, the demand for healthcare services continues to grow, putting pressure on the healthcare system.

Medical cosmetology

Unequal distribution of healthcare resources

Some regions suffer from a lack of medical resources and face a shortage of healthcare professionals, making it difficult for patients to access timely and high-quality healthcare services.
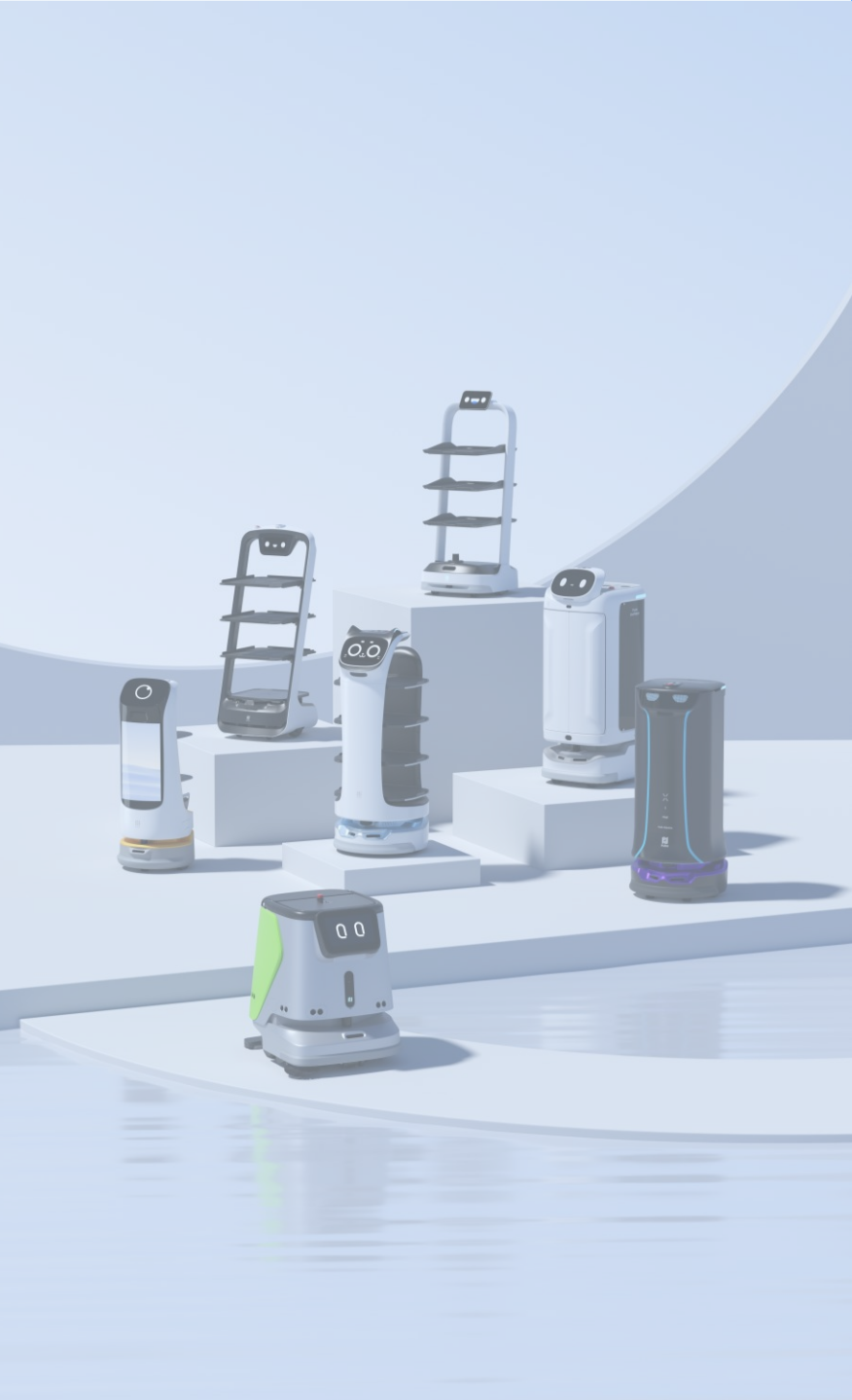
Health management

Bad patient experience

Several factors that contribute to a poor patient experience include : Lack of convenience for patients、The atmosphere of the healthcare institution、 Longer wait times 、Lack of transparency
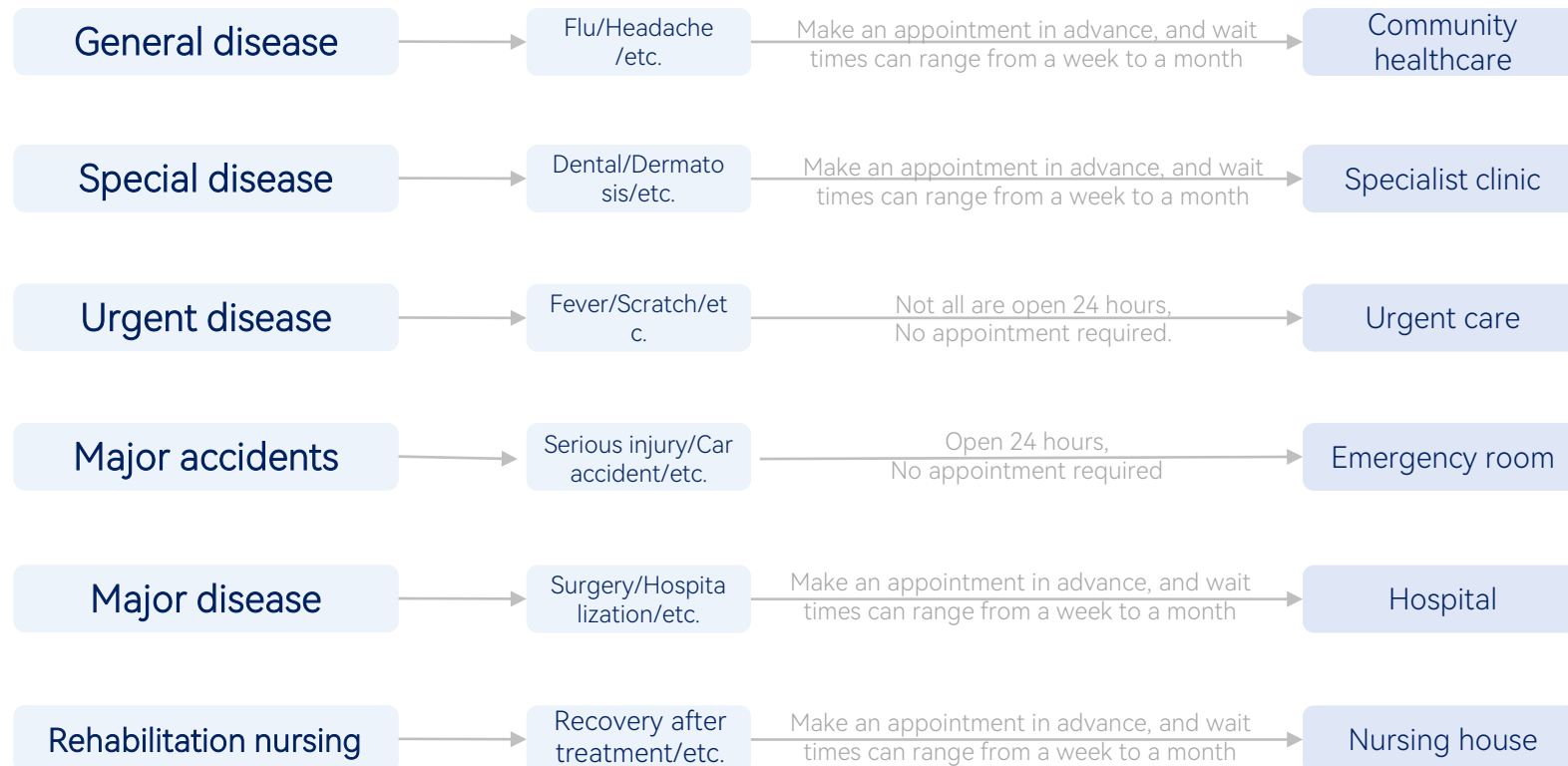
PUDU

02

Scenario Solutions
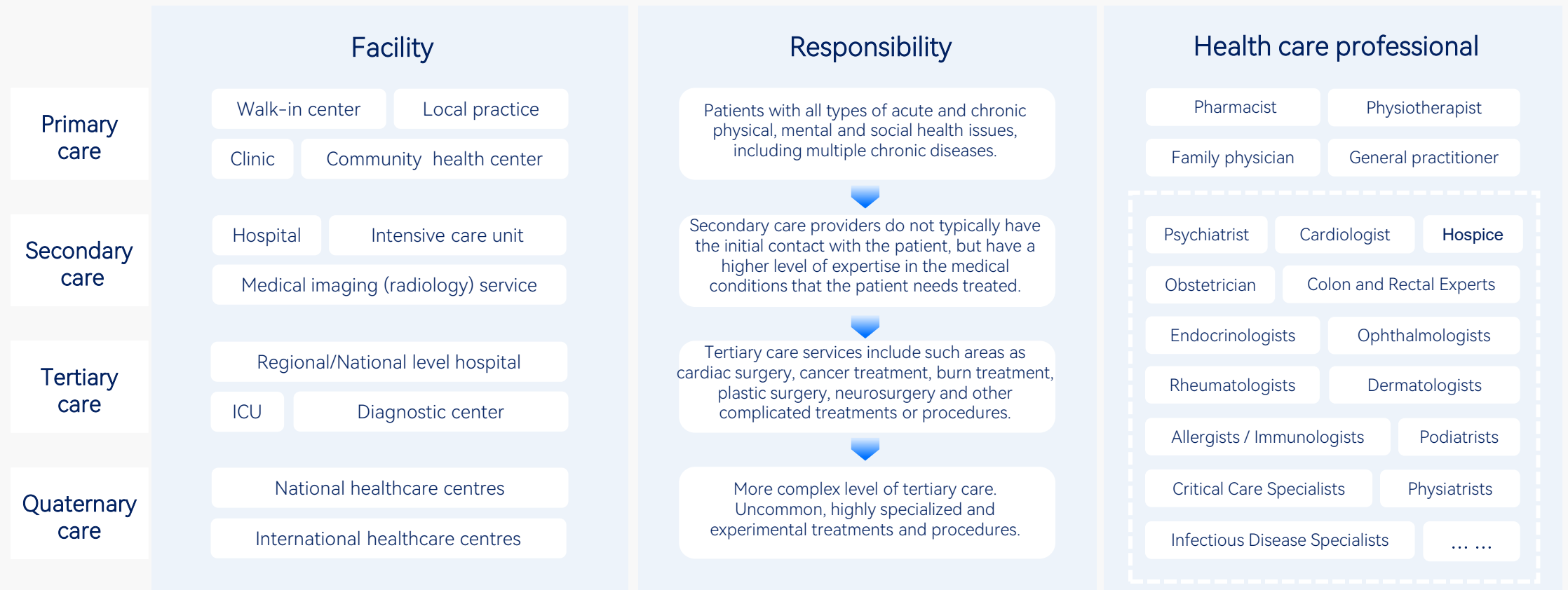
Category of medical institutions

What are the different types of health care facilities ?

The health care infrastructure is a complex system of facilities, insurance plans, professionals, technologies, and more. Health care administrators look after the core facility types: hospitals, outpatient clinics, long-term care facilities, clinical labs, and hospices. These facilities collaborate to deliver high-quality health care to patients and communities.

General disease	Flu/Headache /etc.	Make an appointment in advance, and wait times can range from a week to a month	Community healthcare
Special disease	Dental/Dermato sis/etc.	Make an appointment in advance, and wait times can range from a week to a month	Specialist clinic
Urgent disease	Fever/Scratch/etc.	Not all are open 24 hours, No appointment required.	Urgent care
Major accidents	Serious injury/Car accident/etc.	Open 24 hours, No appointment required	Emergency room
Major disease	Surgery/Hospita lization/etc.	Make an appointment in advance, and wait times can range from a week to a month	Hospital
Rehabilitation nursing	Recovery after treatment/etc.	Make an appointment in advance, and wait times can range from a week to a month	Nursing house

Hierarchical diagnosis and treatment

The triage effect can promote the sinking of high quality resources and improve the capacity for medical services of grassroots medical institutions through the interaction and coordination of medical personnel between grassroots medical institutions and superior hospitals, Its improvement can help improve service efficiency, reduce waste of resources, and promote the coordinated development of medical institutions.

Facility

Primary care
- Walk-in center
- Local practice
- Clinic
- Community health center

Secondary care
- Hospital
- Intensive care unit
- Medical imaging (radiology) service

Tertiary care
- Regional/National level hospital
- ICU
- Diagnostic center

Quaternary care
- National healthcare centres
- International healthcare centres

Responsibility

Patients with all types of acute and chronic physical, mental and social health issues, including multiple chronic diseases.

Secondary care providers do not typically have the initial contact with the patient, but have a higher level of expertise in the medical conditions that the patient needs treated.

Tertiary care services include such areas as cardiac surgery, cancer treatment, burn treatment, plastic surgery, neurosurgery and other complicated treatments or procedures.

More complex level of tertiary care. Uncommon, highly specialized and experimental treatments and procedures.

Health care professional

- Pharmacist
- Physiotherapist
- Family physician
- General practitioner

- Psychiatrist
- Cardiologist
- Hospice
- Obstetrician
- Colon and Rectal Experts
- Endocrinologists
- Ophthalmologists
- Rheumatologists
- Dermatologists
- Allergists / Immunologists
- Podiatrists
- Critical Care Specialists
- Physiatrists
- Infectious Disease Specialists
- ... ...

8 main processes for medical treatment

There are 8 general steps involved in the medical treatment processes, which assisted patients get better soon.

Advertising

Step 1 :
Making an appointment

Guidance

Step 2 :
Registration

Delivery

Step 3 :
Preliminary assessment

Step 4 :
Consultation

Delivery

Step 5 :
Diagnostic tests

Delivery

Step 6 :
Diagnosis

Recycle
Cleaning

Step 7 :
Treatment plan

Step 8 :
Follow-up & monitoring

Overview of scenario-based schemes

PUDU Healthcare Industry Solution

Committed to leveraging intelligent solutions to optimize resource allocation and enhance service capability of healthcare institutions.

Robot + Medical worker ❯ Patient

- Optimized patients healthcare treatment experience
- Reduce the workload of medical workers.
- Assist medical institutions to allocate medical resources rationally

Walk-in center	Local practice	Hospital	Intensive care unit	Regional/National level hospital	National healthcare centres
Clinic	Community health center	Medical imaging (radiology) service	ICU	Diagnostic centre	International healthcare centres

01 "Advertising" scenarios	02 "Disinfection"scenarios	03 "Delivery" scenarios	04 "Recycle " scenarios	05 "Cleaning " scenarios
✓ Pre-Triage Station ✓ Hall of healthcare institution ✓ Nurses station … …	✓ ICU ✓ Surgery rooms ✓ Pathology department … …	✓ ICU ✓ Surgery rooms ✓ Pathology department … …	✓ Surgery rooms ✓ ICU ✓ Clinical lab ✓ Infection Dept . … …	✓ Public area of hospital Inpatient department … …

Overview of scenario-based schemes

Advertising scenarios

Disinfection scenarios

Recycle scenarios

Delivery scenarios

Cleaning scenarios
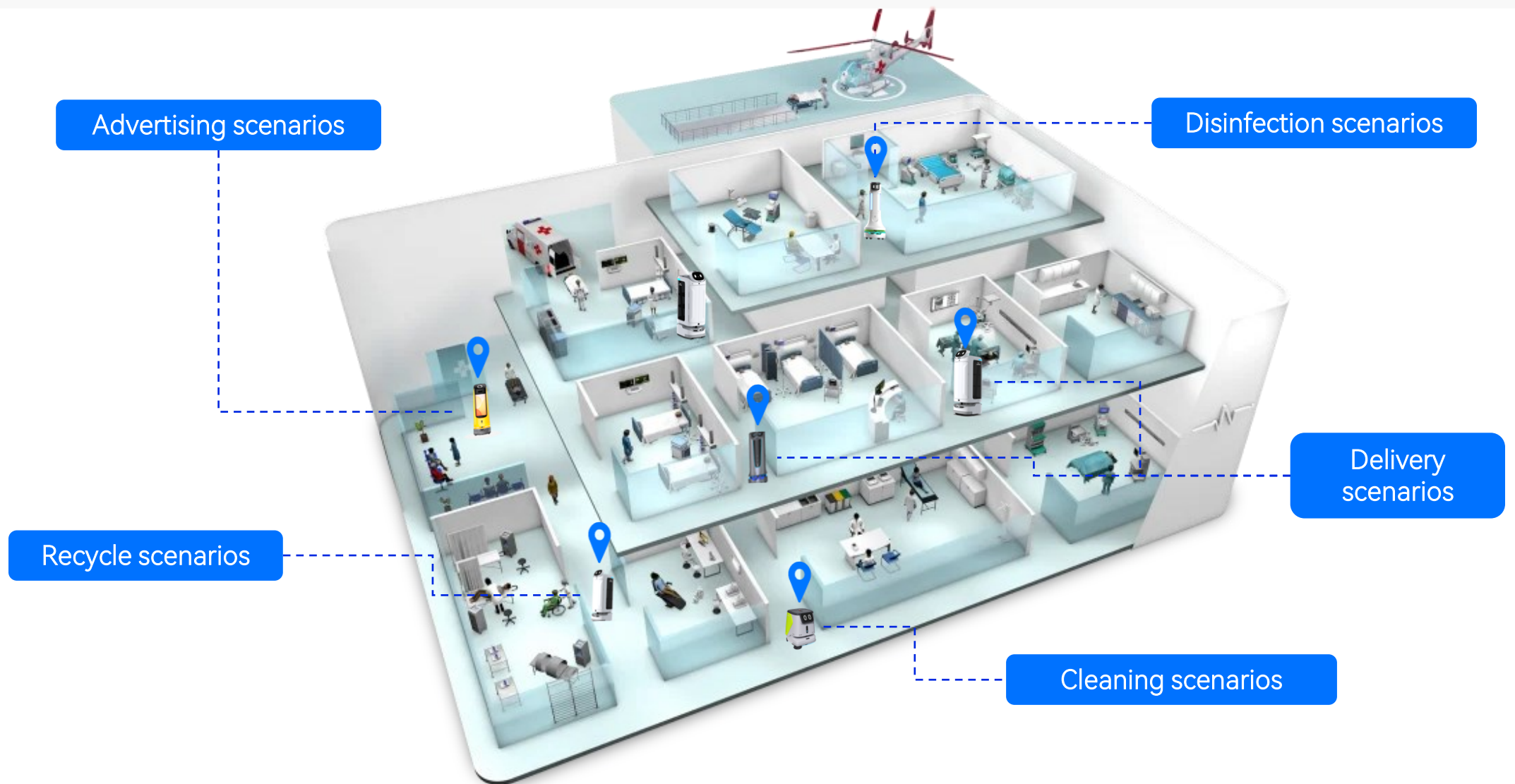
Scenario scheme 1: Advertising scenarios

More attractive, More customizable for specific scenarios

- Preview and triage
- Propaganda and education
- Medication guidance
- Health knowledge
- Hospital information

Ketty

18.5" Ads screen, variety promotion
Promotion more accuracy

- Utilizing intelligent LCD screens to attract patients from all angles
- Large advertising screens better fitting the patients ' perspective
- Combining with speakers to significantly broadcast medical treatment processes & announcements
- Supporting multiple scenarios, allowing for customizable media size and content
- Supporting various types of media, such as audio, video, images, and links

PUDU2

32" Capacitive touch advertising screen
The interaction is diversified

- Seamlessly integrated mobile robots with advertising screens
- Display a variety of videos and showcase promotional content in real time.
- Indoor mobile advertising machine can bring message directly to target audience
- Product promotion, brand promotion, and marketing display, easily achieve marketing objectives

| Department entrance | Information | Nurse station | Registration | Waiting room |
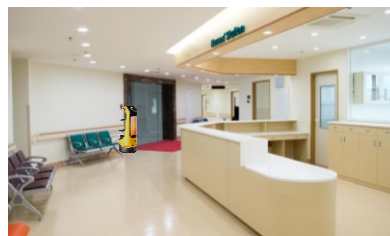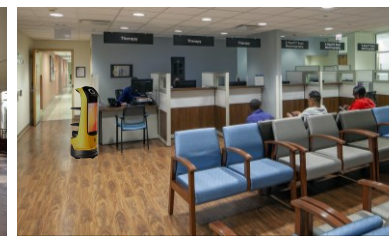
Scenario scheme 1: Advertising scenarios

Professional medical information transmitter

Preview and triage	Propaganda & education	Medication guidance	Hospital information	Health knowledge
Guiding patients one for one to understand treatment procedures including registration, information recording, and accompanying patients to examination rooms, etc.	Speech remind patients of matters that need attention and educates them about area environments, emphasis on inspection process and cautions after receiving treatments.	Help patient to inquire the drug instructions, including functional indications, usage and dosage, adverse reactions, precautions, drug interactions and other related drug information.	The hospital can customize and upload the hospital profile and hospital video that the robot needs to play.	Patients can inquire the life and diet of common diseases, such as disease information introduction, disease prevention, diet health care, health knowledge and other information.

Recommend use

Community health center

Clinic   Hospital

Specialist clinic

Emergency   ...

Min pass width
55cm

Waiting area

Hospital lobby

Registration

Information   ...

Min pass width
80cm
Max weight capacity
35kg

Min pass width
80cm

PUDU

2023

Scenario scheme 2: Delivery scenarios

01 **Closed encryption hatch**

Full of science and technology, the distribution process is safe and worriless , and the distribution of medical stuffs is safe and assured.

02 **Automatic recharge**

Supports automatic recharge without manual assistant, worriless and efficiency, 7x24H unstop working

03 **Cross-floor distribution**

Through the connection with the elevator, access control, gate machine, to achieve cross-layer cross-domain distribution

FlashBot

Ultra-private distribution

➢ Single multitasking
➢ Multi-iot approach
➢ Move dynamic path prompts
➢ Pass by 75CM guest corridors

Multifunctional distribution

➢ Customized projection
➢ Large capacity for more items
➢ Connected Aromatherapy, atomizer, mobile atmosphere accentuated

SwiftBot

Scenario scheme 2: Delivery scenarios

Intelligent logistics solutions for Operating room

Applied for medical materials

| Hospital information system | Electronic health record | ... ... |

Call robots to delivery

| APP | 4G watch | Pager | ... |

PUDU Cloud

IoT: Connect with multiple system

| Automatic access control system | Elevator control system | ... ... |

Preoperative — Material preparation

Intraoperative — Material supplement

Postoperative — Medical waste recycle
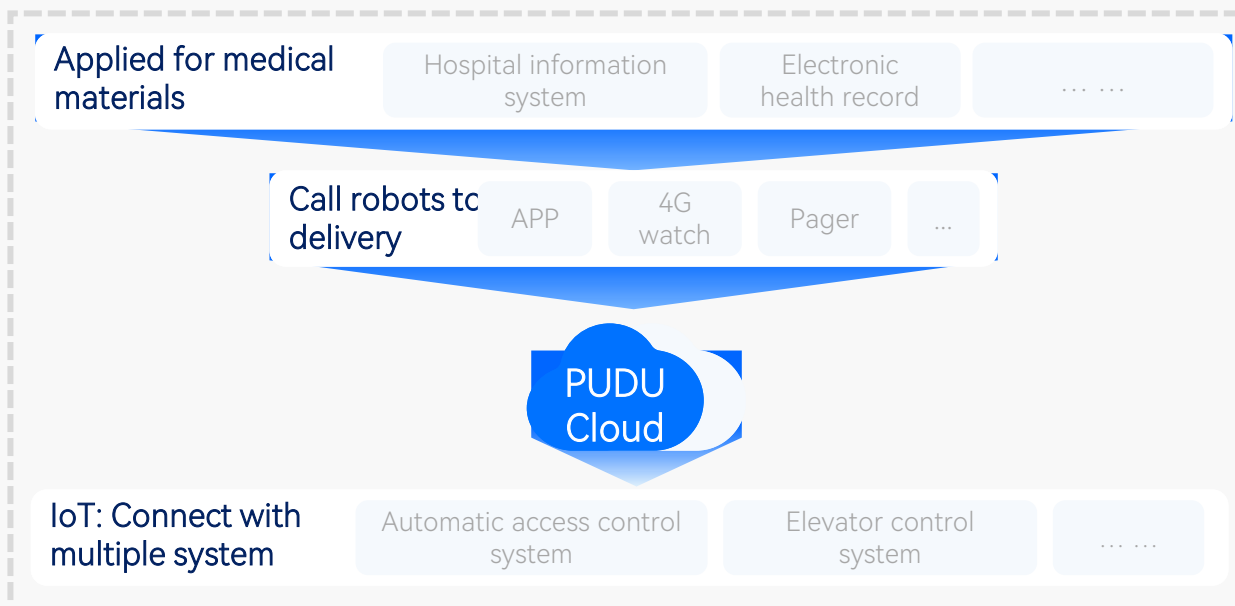
By connecting with the high-value consumables management system in the operating room and HIS (Hospital Information System), the robot can realize the ordering and automatic logistics distribution between the operation and the secondary warehouse, avoid the interruption of the operation caused by the need to take temporary surgical supplies during the operation, **thus shortening the operation time, satisfying the information and accurate management of surgical supplies, and tracing the whole surgical process in a closed loop.**

PUDU

2023

Scenario scheme 2: Delivery scenarios

Intelligent logistics solutions for laboratory
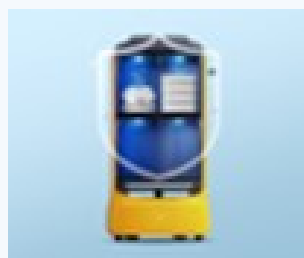
Collect specimens

Collect all kinds of specimens from each ward to the laboratory

Receipt specimens

Receipt the specimens at the specimen reception

Specimen examination

Examination of specimens received

Deliver laboratory test tubes

Call robots to delivery the laboratory test tubes to each ward

Specimen transport closed loop workflow

Deliver test results

Call robots to delivery the test results to each ward.

PUDU provide multiple robots

Suitable for different processes of laboratory

Ensure the standardized intelligent distribution of each specimen, Reduce the heavy specimen distribution tasks of medical staff, Save the time of returning specimens, Optimize the efficiency of specimen distribution reduce the risk of cross-infection between specimens and personnel, Better protect medical staff, And let them return to serving patients

- ➢ Multi-tasking
- ➢ UV sterile compartment
- ➢ Modular adjustable compartment
- ➢ Intelligent arrival notifications, including: telephone / APP / Landline

PUDU

Scenario scheme 2: Delivery scenarios

Intelligent logistics solutions for wards

Two different ways to distribute ward items

Same floor distribution–BellaBot / PuduBot2

1 Call robots to delivery things to patients bedside

2 Robots receive the delivery demands by PUDU cloud

3 Announce patients when robots arrived

Cross floor distribution–SwiftBot / FlashBot

1 Send medical materials demands online

2 Robots receive the delivery demands by PUDU cloud

3 Robots go to the warehouse to pick up stuffs

4 Ride the elevator to delivery

Personal stuffs

Consumable

Wards distribution

Catering

Drugs
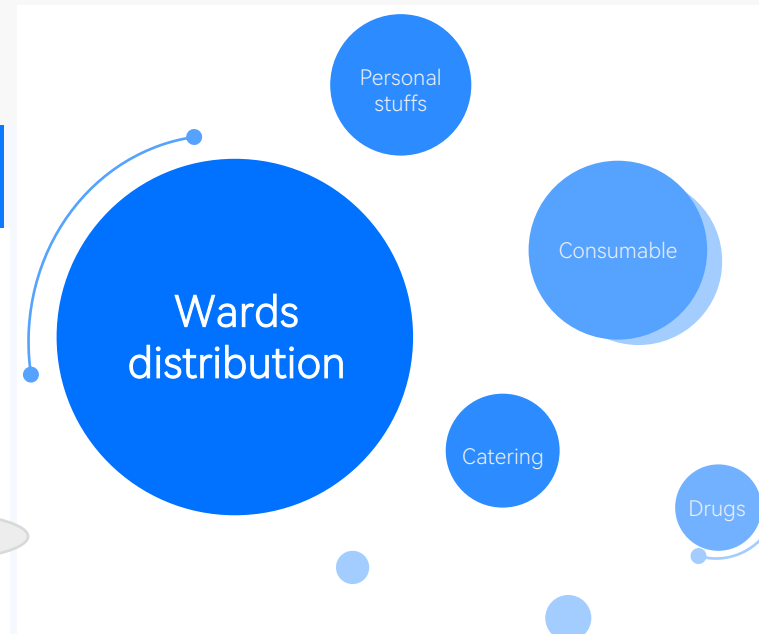
Increase staff management :

Encourages team working and improve staff morale, leading to reduced turnover, sickness and reliance on temporary staff

Scenario scheme 3: Recycle scenarios

Intelligent recycle solutions for medical wastes

Medical wastes

Medical waste refers to the direct or indirect infectious, toxic and other hazardous wastes generated by medical and health institutions in the course of medical treatment, prevention, health care and other related activities.

85%

15%

15%
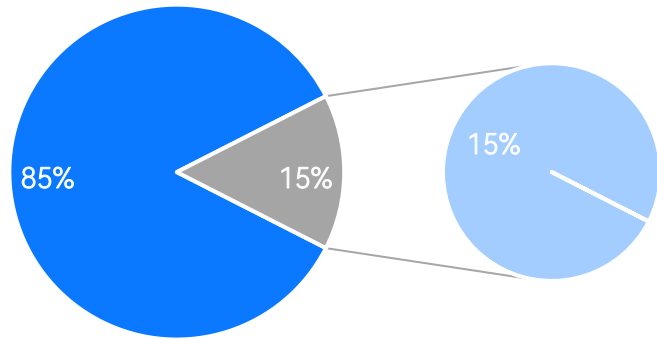
■ Non–hazardous waste ■ Hazardous waste

Of the total amount of waste generated by medical activities, about 85% is general non–hazardous waste equivalent to domestic waste. The remaining 15% are considered hazardous substances that may be infectious, toxic or radioactive.

Medical waste classification

Non-infected waste

Infected waste

Contaminated waste (recyclable)
Anatomical waste
Sharp waste (recyclable)
Sharp waste
Radioactive waste

Drugs, chemical waste, food, paper

Infected dress, aprons, gloves IV sets, pop casts

Pathological waste Soiled (infectious) waste Medical chemical waste Clinical lab waste Pharmaceutical waste

Syringes, ampouls, scalp vein, blades

Needles, broken glass, sharp parts

waste generated by nuclear medicine, radiation oncology

Black container or bag

Red container or bag

Yellow container or bag

Blue container or bag

White container or translucent bag

Sealed lead container

Chemical treatment

Treated by autoclave or microwave

disinfected by autoclave microwave, hydroclave

Disposal

Common treatment facilities

Secured landfilling

Recycling or deep burial

Deep burial

Recycling

Sharp PIT

Scenario scheme 3: Recycle scenarios

Intelligent recycle solutions for medical wastes

01 Cleaners collect garbage by sorts and record handover time, handover person, handover weight.

02 HolaBot execute the task / receive the recycle tasks online at wards and different department .

03 HolaBot delivered all the garbage to the transfer center .

HOSPITAL

PUDU

2023

Scenario scheme 4: Cleaning service

Intelligent cleaning solutions for medical institutions

Pain points

Cleaning is a hard work

Cleaning work usually requires physical labor such as standing and bending for a long time . The high requirements for cleaning in the medical industry are even more over workload, which is not the most young people's employment first choices.

Big security risk

Cleaners are usually old people, disinfectants, cleaners and tools are mixed use during cleaning work in medical institutions, it's difficult for them to clean with the standardizing processes every time which has certain security risks.

Unstable cleaning quality

Different levels of skills , work attitudes of cleaning personnel , variations in experience and training among cleaners and cleaning requirements in different areas of a medical institutions can make it difficult to ensure stable quality of cleaning work.

Lack of supervision and management

Traditional cleaning cannot control the work progress and quality in real time. It is difficult to conduct quantitative supervision and evaluation of cleaning work, and assist medical institutions to pass cleaning-related audits.

PUDU

2023

Scenario scheme 4: Cleaning service

Cleaning requests of medical institutions

Different cleaning standards exist in various area of medical institutions

- The type and frequency of cleaning spaces require, depends on what activities are carried out in them, and the level of infection risk .
- Cleaning plans must recognize the importance of keeping frequently touched surfaces clean in minimizing organism transfer between individuals and surfaces.
- The national standards require all healthcare organizations to meet safe standards of cleanliness to minimize risk to patient safety from inadequate cleaning.

Area : General Wards		Frequency (times / day)	Job duties
Contaminated area	General wards, examination room, sewage room, washroom	2	➢ Water & Cleanser ➢ Use disinfectant if it's necessary
	Toilet , bath room (for patients)		➢ Water & Disinfectant
Semi-contaminated area	Medical staff office, treatment room, nursing station, corridor	2	
Hygienic area	Storage room, medicine dispensing room, medical staff living area (duty room, changing room, demonstration classroom, etc.)	1	➢ Water & Cleanser ➢ Use disinfectant if it's necessary
	Toilet , bath room (for medical staff)	2	

Area : Laboratory, Radiology, B-ultrasound room, etc.		Frequency (times / day)	Job duties
Contaminated area	Examination room, Laboratory, Specimen collection room, Dirt room, Washing room, etc.	2	➢ Water & Cleanser ➢ Use disinfectant if it's necessary
	Toilet , bath room (for patients)		➢ Water & Disinfectant
Semi-contaminated area	Medical staff office, treatment room, nursing station, corridor, Diagnosis room, Waiting area, Endoscopic cleaning and disinfection room, etc.	2	
Hygienic area	Storage room, medicine dispensing room, medical staff living area (duty room, changing room, demonstration classroom, etc.)	1	➢ Water & Cleanser ➢ Use disinfectant if it's necessary
	Toilet , bath room (for medical staff)	2	

Area : Outpatient & Emergency		Frequency (times / day)	Job duties
Contaminated area	Consulting room, sewage room, washing room, waiting area, public lobby, outer corridor	3	
	Toilet (for patients)		➢ Water & Disinfectant
Semi-contaminated area	Treatment room, Nursing station, corridor	3	
Hygienic area	Storage room, medical staff living area (office , changing room, etc.)	1	➢ Water & Cleanser ➢ Use disinfectant if it's necessary
	Toilet (for medical staff)	2	

Area : Isolation wards & ICU , etc.		Frequency (times / day)	Job duties
Contaminated area	Consulting room, Sewage room, Washing room, Waiting area, Public lobby, Outer corridor	3	
	Toilet (for patients)		➢ Water & Disinfectant
Semi-contaminated area	Treatment room, Nursing station, corridor , First buffer, Second buffer	3	
Hygienic area	Storage room, Medical staff living area (office , changing room, etc.)	1	➢ Water & Cleanser ➢ Use disinfectant if it's necessary
	Toilet (for medical staff)	2	

Scenario scheme 4: Cleaning service

Suit various floor types

Quiet

Clean

Harmless

Efficiency

Suitable for different materials and different infection control requirements of the ground

Luxury vinyl tile (LVT)

Vinyl composite tile (VCT)
✓ Corridors , waiting rooms , patient rooms , entryways

Sheet vinyl
✓ Surgical suites , operating rooms , procedural rooms ,ICU ,corridors

Rubber flooring
✓ Stairwells , entryways , vestibules

Bamboo flooring
✓ Offices, chapel, private waiting rooms ,specialty areas

Commercial carpet
✓ Offices , waiting rooms , lobbies , public corridors

Procedural rooms, surgical suites, ICU, etc. areas have the highest level of infection control requirements .

Scenario scheme 4: Cleaning service

Man-robot cooperation cleaning scheme

Robots job responsibilities

- Cross floor cleaning
- Clean large open area
- Floors clean
- … …

Human job responsibilities

- Pollutant clean up
- Bed cleaning
- Cleaning work above ground
- … …
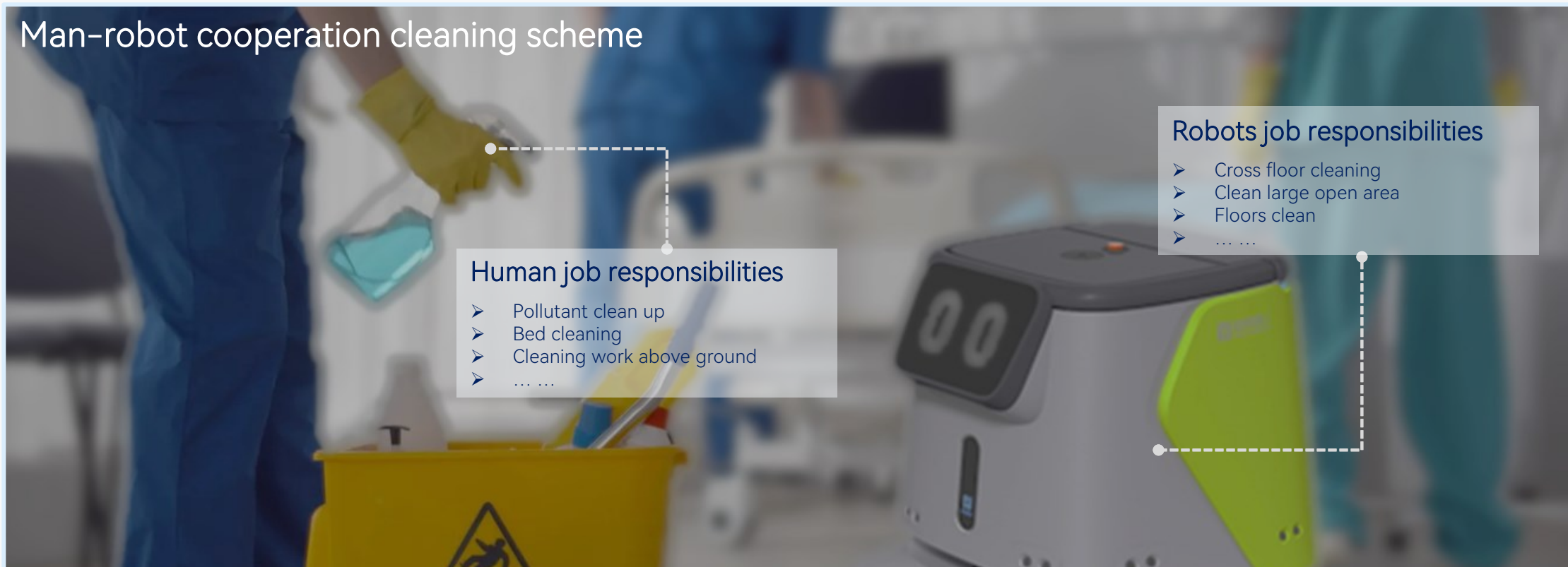
The robots are suited to cleaning large areas in medical organizations and will support their cleaners by **enhancing repetitive cleaning procedures** in open spaces such as corridors (i.e. sweeping , mopping , etc.)which will **free up other cleaners to focus on touch point areas and cross infection hotspots** . This will form the perfect 'cooperation' relationship.

Scenario scheme 4: Cleaning service

7*24 hours task schedule , fully automatic
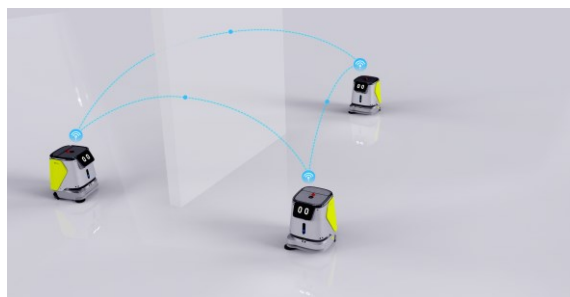
Multi-machine Scheduling

Based on PUDU scheduler technology, it realizes **multi-machine collaborative operation**, and the systematic operation of robots in medical institutions.
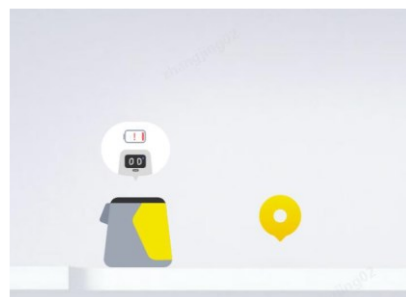
Breakpoint Resume Cleaning

When the power is low and the cleaning task is not completed, the robot **can remember the cleaning progress and resume the previous unfinished task** after being fully recharged .
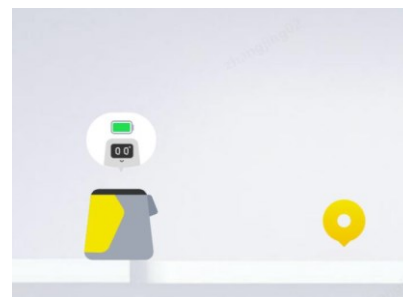
Automatic Addition & Drainage

15L clean water tank and 15Lwaste water tank with an exclusive workstation. **Automatically fill and drain the water** at the workstation.

IoT

An intelligent IoT system makes it easy to connect elevators 、 turnstiles 、 automatic doors , etc. , enabling automatic elevator and entrance guard access, auto-calling of elevators, crossing-floors cleaning and autonomous return trips.

Elevator :
Suitable for outpatient building , inpatient building ,etc.
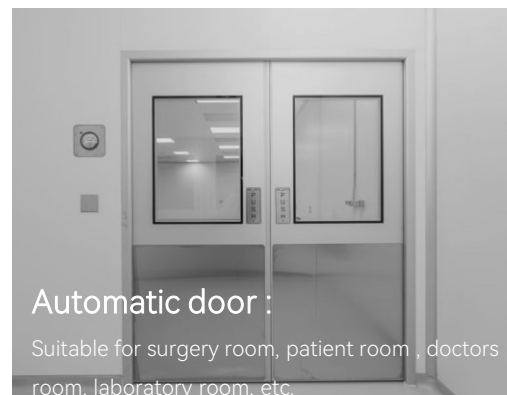
Automatic door :
Suitable for surgery room, patient room , doctors room, laboratory room, etc.

Turnstile gate :
Suitable for public lobbies, medical institutions entrance , etc.

Scenario scheme 4: Cleaning service

7*24 hours task schedule , fully automatic

- Save manpower、time、money
- One machine, multiple cleaning modes, suitable for multiple scenarios.
- 24-hour operation, fully automatic
- Simple, user-friendly, reliable, and stable
- Check the machine status at any time
- Presentation of cleaning reports

one day of CC1

5:00
Perform cleaning schedule

9:00
Finish cleaning，Go back to station to get charging and clean water

19:00
3rd Perform cleaning schedule

4:00
Automatically starts the scheduled cleaning task.

7:00
Automatically send cleaning reports to merchants

13:00
2nd Perform cleaning schedule

1/2
Manpower cost

Save **70%**
Detergent

3times
Frequency

100%
Visualization

PUDU

Scenario scheme 4: Cleaning service

Digital Platform
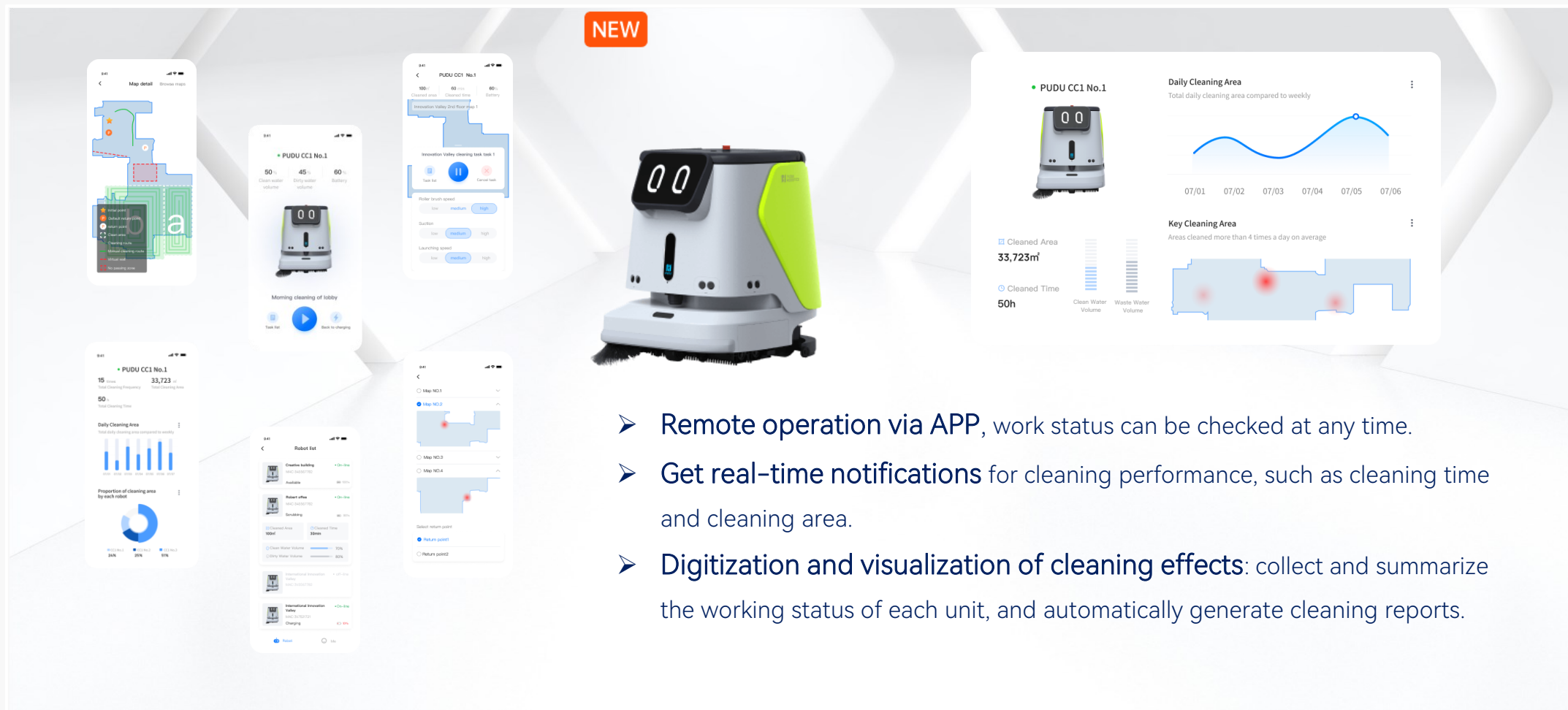
➢ **Remote operation via APP,** work status can be checked at any time.

➢ **Get real-time notifications** for cleaning performance, such as cleaning time and cleaning area.

➢ **Digitization and visualization of cleaning effects**: collect and summarize the working status of each unit, and automatically generate cleaning reports.

Scenario scheme 5: Disinfection scenarios

Puductor 2

Professional intelligent disinfector

2 disinfection modes, UV disinfection + Ultra dry mist disinfection

✓ Enhanced the control of nosocomial infection, Control and prevent hospital internal infections and improve the quality of medical nursing.

✓ Digital management platform, strengthened the infection link management, standardized infection operation.

Automatic positioning and navigation system

188μW/cm² UV disinfection

2 L/H Ultra dry mist disinfection

Dry burn protection and low water level reminder

6 hours disinfection time and 15 L Disinfectant capacity
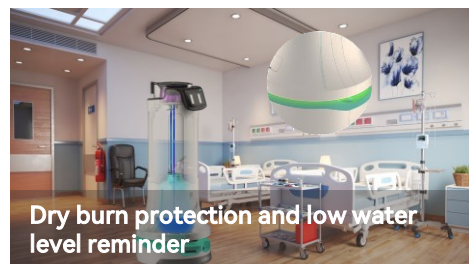
360 ° disinfection

Scenario scheme 5: Disinfection scenarios

2 major features
24 hours auto-disinfection, without manual assistant

Set up automated tasks

2. Arrived at the first position to start working;

3. Task countdown, voice alert

505
20-22

1. Check the disinfectant capacity and Schedule the disinfection tasks

5. Go back to the charging station automatically

4. Finish the disinfection tasks on schedule time
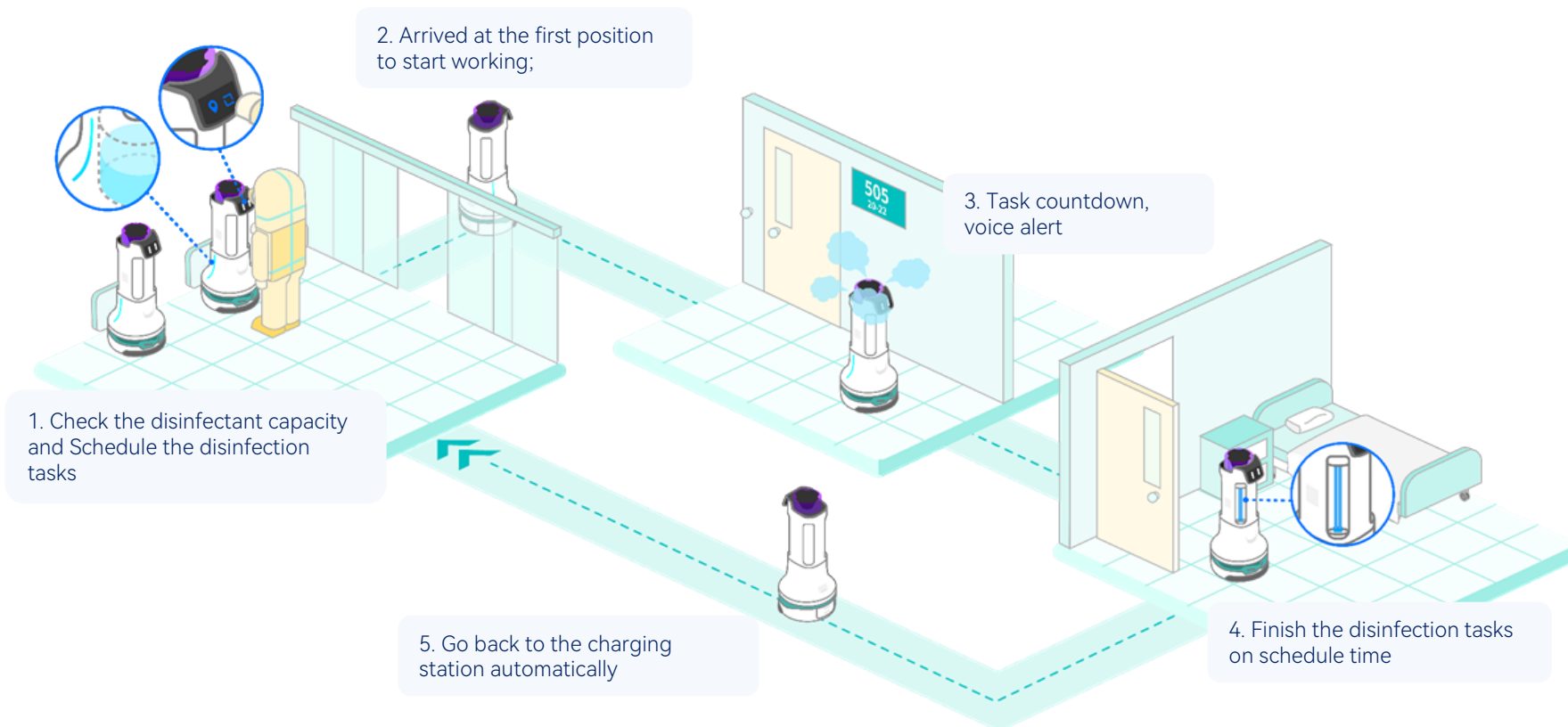
Scenario scheme 5: Disinfection scenarios

Suitable to all department of medical institution disinfection requirements

In-door infection control is based on the robot as the carrier, integrated ultraviolet light, ultra-dry atomization hydrogen peroxide two disinfection methods in one, with autonomous navigation technology and autonomous movement. According to different scenarios according to the requirements of the disinfection mode, fully intelligent operation, man-machine separation, to ensure the safety of personnel. Meet the needs of automatic, timed, efficient and accurate disinfection and epidemic prevention in indoor environments with many rooms or complex layout.

Wards disinfection

The blood, body fluids, components and excrement of patients in the ward are all infectious. The prevention of cross-infection among patients in the ward and the occupational protection of medical staff are the key points of infection control.

Involved disinfection areas:
- ✓ negative pressure isolation ward
- ✓ Infectious ward
- ✓ Intensive care unit (ICU)
- ✓ etc.

Surgery room disinfection

There are also a lot of pollutants on the surface of objects inside the operating room, which need to be cleaned by surface disinfection. Puductor2 can automatically open the disinfection after the operation, accelerate the disinfection speed in the operating room, and improve the surgical table turnover rate.

Involved disinfection areas:
- ✓ Outpatient surgery room
- ✓ Ophthalmic operating room
- ✓ Operating room
- ✓ etc.

Medical technology department disinfection

Combined with the special situation of medical technical departments' disinfection and sterilization requirements are high. Combined with the characteristics of autonomous movement and automatic work of Puductor2, the quantitative management of disinfection process is realized.

Involved disinfection areas:
- ✓ Laboratory departments
- ✓ Pathology department
- ✓ Laboratories
- ✓ etc.

Hospital public area disinfection

Effective and reasonable normative measures should be formulated to protect environmental health and safety in public areas. Puductor2 is equipped with two disinfection modules: ultraviolet lamp and ultra-dry fog, which can meet the disinfection requirements of different environments.

Involved disinfection areas:
- ✓ Hall
- ✓ Ward corridors
- ✓ Elevator and stairs
- ✓ etc.

Other scenarios: IoT

Smart CSSD system

Medicine management system

...

...

Electronic medical record &
Hospital information management system

Integration mode

API SDK

android
PUDU OS

Bluetooth

LoRaWAN

Time / Man / Process ,etc. all visualized.
Digital management makes all can be traced

Connect with all kinds of system
Enclose treatment process automatically.

Through various technologies such as API, SDK, and Android, make all-online a reality.

Interconnection ,
More than imagine
......

PUDU

2023
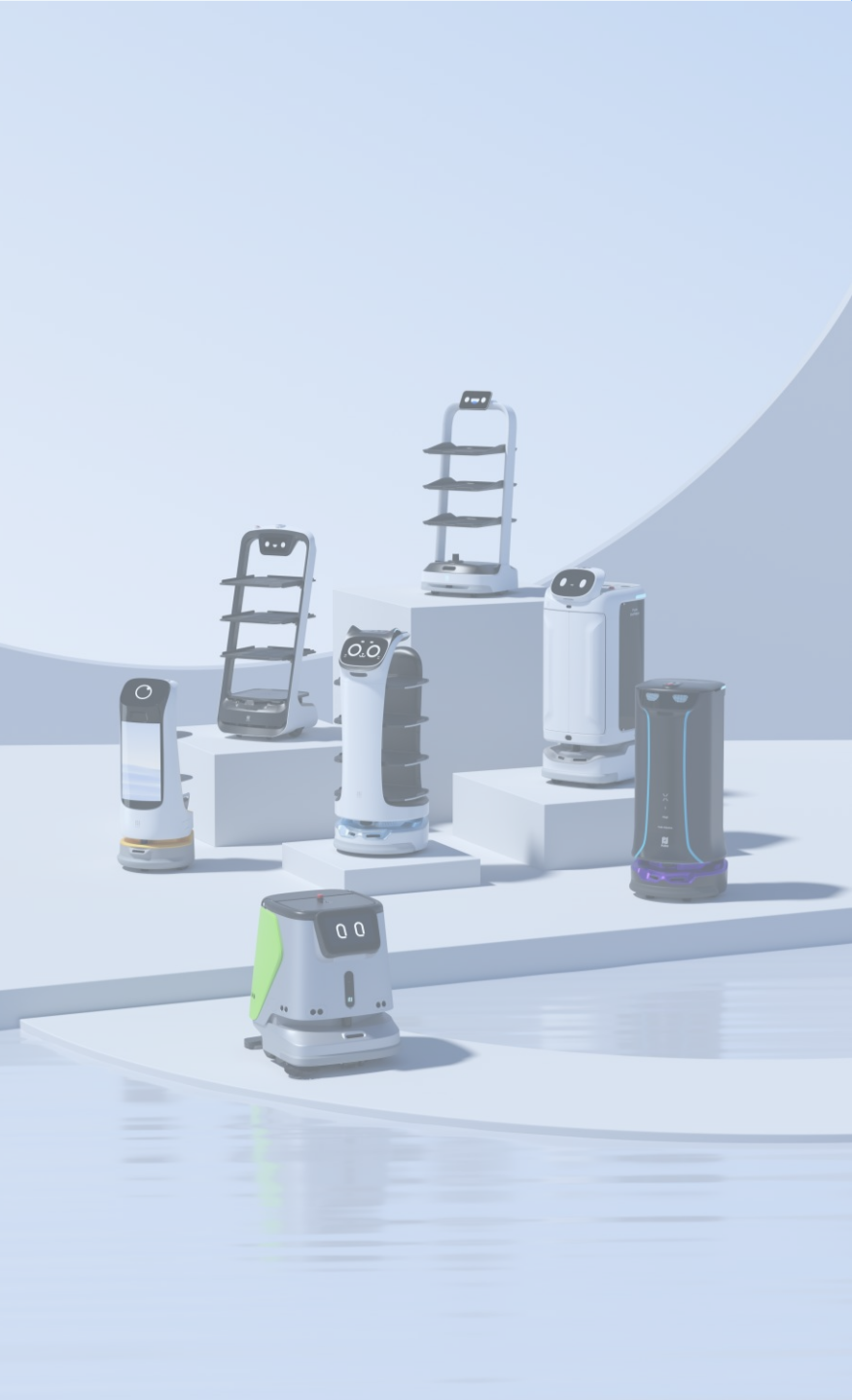
03
Successful Cases

Value Summary

Reduce workload,
Optimize work content configuration

Used to support human employees, robots eliminate the need for workers to perform many labor intensive and repetitive tasks and allow them to focus more on complex, thought-intensive tasks.

Enhance the efficiency

The robots are not intended to replace human, but to act as their assistants. They help to speed up the tasks while delivering improved quality, consistency of standardized tasks and a fantastic reaction from staff and visitors to the hospitals.

Monitoring working process ,
Feedback management quality

Background real-time monitoring of robot location, working status and task execution, real-time grasp of the hospital logistics status, cleaning progress, disinfection process.

Environmental protection

As well as supporting medical institutions with standards, the useful robots are designed to support the environment too. PUDU CC1 typically uses 70% less water and fewer chemicals than traditional cleaning methods . Puductor 2 help reduce the risk of infection by destroying germs that might have been missed with manual cleaning methods.

Successful case : Yokohama Hodogaya Eye Clinic

Video URL：https://www.youtube.com/watch?v=iYQmjlvTkbg

Location：

hodogaya-ku, yokohama, kanagawa, Japan

Operation time：

9：00-12：30，14：30-17：30

Successful case : Yokohama Hodogaya Eye Clinic

Process

Patients

Make an appointment → Sign in at the registration → Do a basic check → Diagnosis and treatment → Payment and next appointment

Medical staffs

Register reservation information → Receive relevant documents → Lead to check → Diagnosis and treatment → Give prescription & assist payment

KettyBot

Delivery things while patients → Delivery registration forms → Navigation

Configuration

Item	QTY
KettyBot	1
Charging station	1

横浜保土ヶ谷眼科
Yokohama Hodogaya Eye Clinic

Successful case : Yokohama Hodogaya Eye Clinic

After using the KettyBot,
Yokohama Hodogaya Eye Clinic has been able to solve 10% more patient's health issues per day than before.

Work efficiency

*Calculated from 1 KettyBot has served in the clinic for 10 days

80 H
Accumulated working hours

1000 M
Cumulative navigation distance

500+
Cumulative interaction services

150%
Man-robot cooperation efficiency
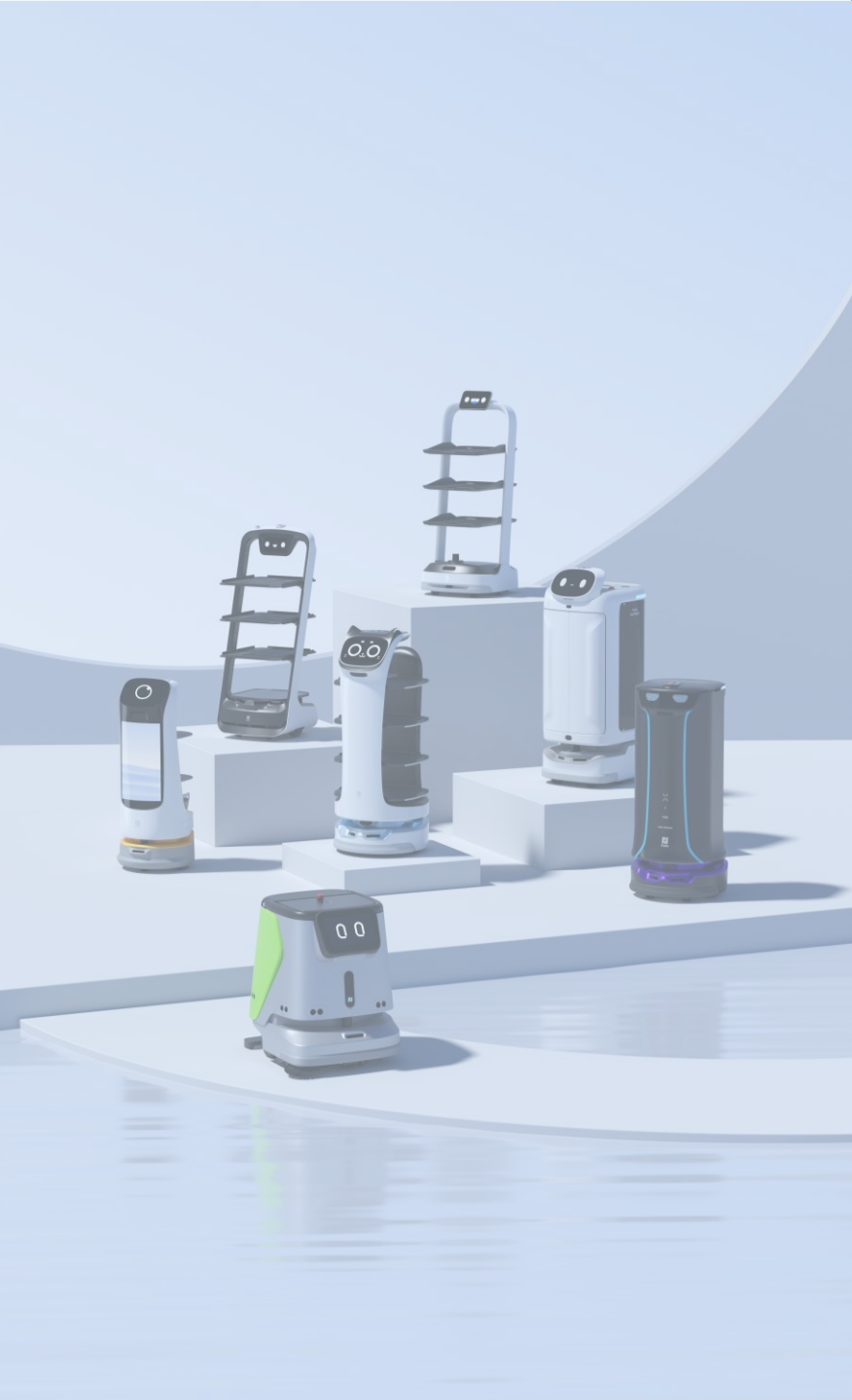
04

Product Family Matrix

Creating truly useful robot to improve human productivity and quality of life

Product Family

Delivery Robots

Bellabot | Pudubot 2 | Pudubot | Kettybot

Swiftbot | Holabot | Flashbot

Cleaning Robots

CC1

SH1

Pudu Cloud

PUDU Merchant Management Platform | PuduLink App | PUDU Cloud Platform

Technology

PUDU OS | Positioning and navigation algorithm | Perceptual obstacle avoidance algorithm | Motion control algorithm

Multi-machine scheduling algorithm | AI interactive algorithm | Cloud platform algorithm | Simulation testing platform

IOT Solutions

Pager

Autodoor

Elevator

4G/lora Watch

Table Tracker

Bluetooth Speaker

...

Accessories Solutions

Cup holder | Food cover

Tray | Display shelf

Self-charging station | ...

1-N Customized Solutions

Voice | Emoji

Skin | SDK

...

PUDU

2023

Delivery Robots

BellaBot

Novelty、cute、fully-perceptive food delivery robot

Contactless delivery	Multiple located	Tray Sensor
Flexibility	Personalized Presentation	Multi-interaction
Changeable battery	Safety	Service

PuduBot2

Latest、high-performance、extendable、adaptable，intelligent delivery robot for multiple scenarios

Delivery mode	Shipping mode	Cruise mode
Direct mode	Dish-recycle mode	Birthday mode

KettyBot

With Ad screen, serving as both a delivery and receptionist

Minimum passability	AD	Reception
Navigation	Voice interaction	Work plan
Delivery	Self-charging	Feature settings

Delivery Robots

SwiftBot

Delivery Robot for Smooth Peak Hour Operations, Redefining Social Interaction between Humans and Robots

iF DESIGN AWARD 2023
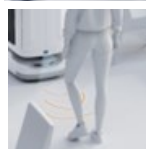
Avoidance Reminder | Operating Status Projection | Atmosphere Projection | Foot-activated Door Projection

PuduBot

Classic Intelligent Food Delivery Robot, Pioneering the Industry of Trackless Delivery Robots

reddot award best of the best
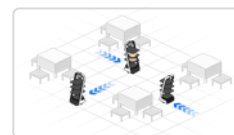
Scheduling | 3D avoidance | Independent Suspension

Ultra-long Endurance | Optimal Path Planning | Sun-resistant

HolaBot

First Delivery Robot with Remote Call Notification Function for Multiple Delivery Scenarios
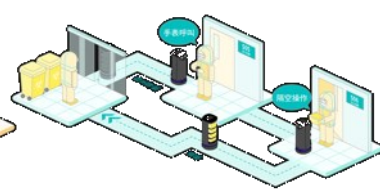
Dish-recycle | medical waste recycle

FlashBot

Full-Scenario Delivery for Hotels, Offices, Apartments, and Residential Buildings

APP call | Independent cabin door | Customized disinfection time

Take elevator | Auto-door | Arrival notification

Cleaning Robots

PUDU CC1

All-Purpose Cleaning Monster: Four-in-One Scrubbing, Sweeping, Mopping, Vacuuming

A machine that integrates sweeping, mopping, vacuuming, and dusting, easily meeting all cleaning needs with just one device

reddot winner 2023

dusting | mopping | sweeping | vacuuming

PUDU SH1

Professional Mini Digital Floor Scrubber: A More Professional and Thorough Cleaning Solution

The compact and flexible design allows for easy transition between tasks on multiple floors and surfaces

机器人列表
不同机器人的清洁详情

清洁总数 12
1号
清洁总面积: 2144㎡
清洁总时长: 2h

清洁总数 41
2号
清洁总面积: 2311㎡
清洁总时长: 2h

清洁总数 47
3号
清洁总面积: 1005㎡
清洁总时长: 1h

日清洁面积
日清洁总面积与周总量的对比

07/01 07/02 07/03 07/04 07/05 07/06 07/07
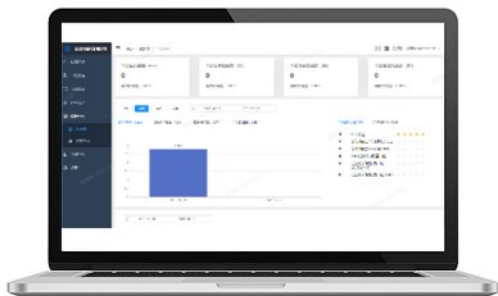
PUDU Cloud

PUDU Cloud Platform

For distributors

Management platform for managing business
opportunities, clues, sub-distributors, merchant
customers, and selling robots.

PC – Web

1）Singapore Group： https://css.pudutech.com

2）Germany Group： https://csg.pudutech.com

3）China Group： https://cs-internal.pudutech.com
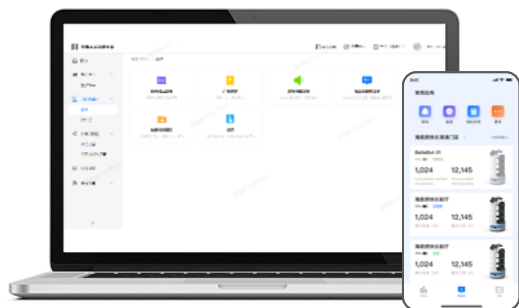
PUDU Merchant Management Platform

For end-store

A platform for robot configuration, remotely controlling, managing stores and viewing robot operation data.

PC – Web

1）Singapore Group： https://businesss.pudutech.com

2）Germany Group： https://businessg.pudutech.com

3）China Group： https://business.pudutech.com

PuduLink App【iOS】   PuduLink App【Android】

PUDU

IOT Solutions

Pager

4G/Lora Watch

Elevator

Auto-door
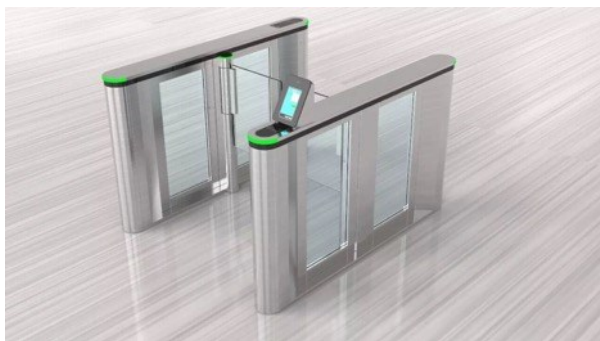
Bluetooth Speaker

Table Tracker

Accessories Solutions

Ketty's Accessories

Enclosed protective cover

Overhead display shelf

Rear housing unit

Self-charging station

Retractable tray border

3-Axis spill-proof cup holder

Fixed beverage holder
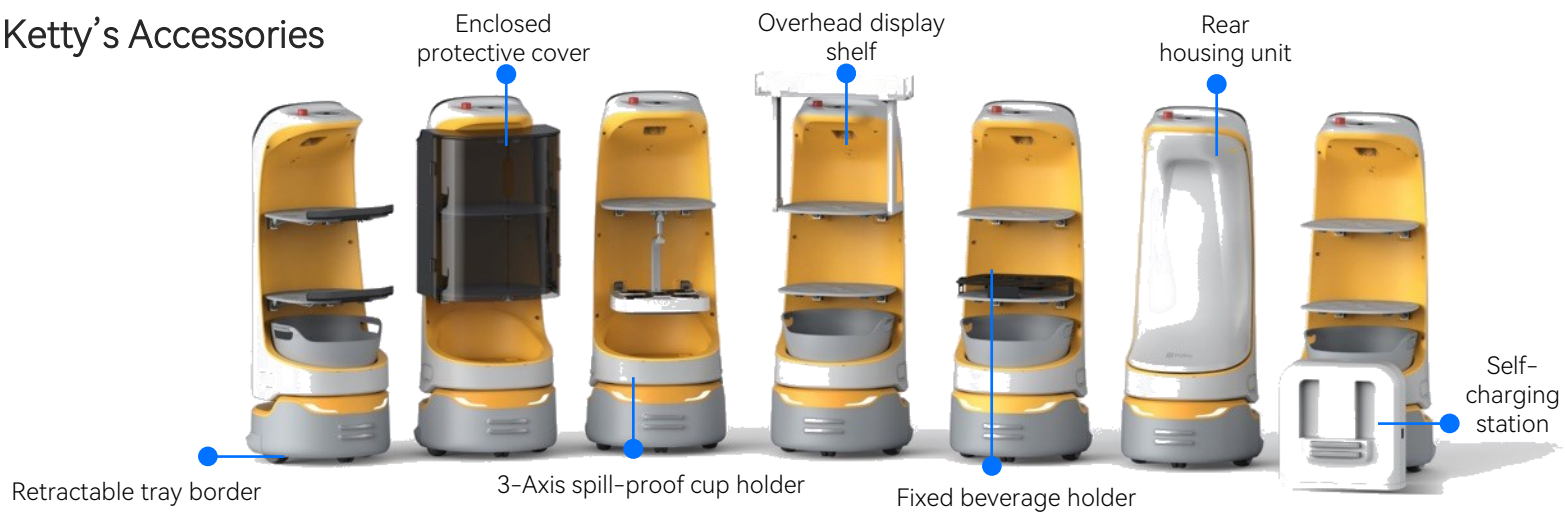
Enclosed Protective Cover

Bearing tray（Bella）

Cup holder（Bella）

1-N Customized Solutions

PUDU OS

Robot SDK

Skin

Customized Emoji

Customized Voice

Customized Software

Combined with 3rd party hardware

More options to come soon

05

PUDU Introduction

Pudu Robotics

Shenzhen-based and founded in 2016, Pudu Robotics is a world-leading tech-focused enterprise dedicated to the design, R&D, production and sales of commercial service robots on a mission to use robots to improve the efficiency of human production and living.

Since its inception, Pudu Robotics has heavily invested in R&D, obtained multiple awards such as Red Dot and applied hundreds of core patents to lead the development of the robotics category and provide high technology products that would appeal to targeted markets. Pudu Robotics has been rapidly growing in recent years to become a "leader" in the global markets with coverage of over 60 countries and regions worldwide. The robots are widely applied in restaurants, hospitals, schools, office buildings, government halls, subway stations, waiting rooms, etc.

Culture

Mission

Use robots to improve the efficiency of human production and living

Vision

To become the world's strongest commercial service robot company

BE INVENTIVE

BE CUSTOMER CENTRIC

THINGKING IN THE LIGHT OF FIRST PRINCIPLES

BE ENTERPRISING & ACCOUNTABLE

PURSUING FOR THE ULTIMATE

MOVING FAST

BE OPEN–UP

EMBRACING CHANGE

Pudu Robotics: The world largest commercial service robot manufacturer

Total Sales Quantity

60,000+

60,000+ * units have been sold worldwide

Market Share in All Scenarios

TOP1

The market share in the full range of commercial service robots is No.1
(Exceeds the sum of the 2nd, 3rd, 4th, and 5th places on the market)

Market Share of the Overseas Catering Industry

>80%

Overseas catering industry's market share > 80%

* Relevant statistics as of May 2023
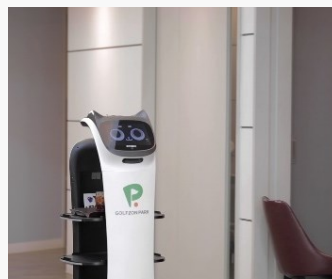
South Korea
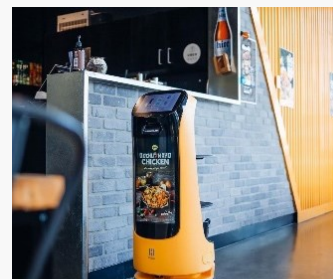
Australia

USA

Jordan

Switzerland

Poland

Philippines

Nederland

Malaysia
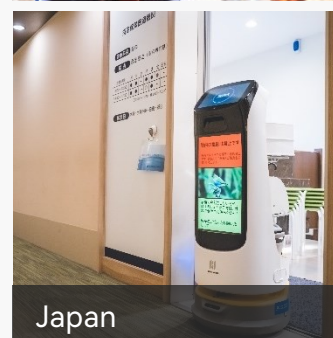
Japan
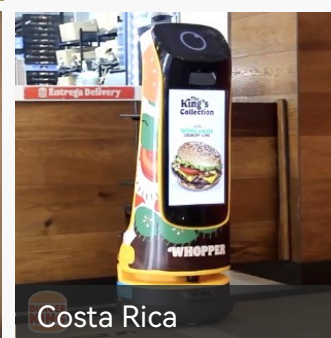
Costa Rica
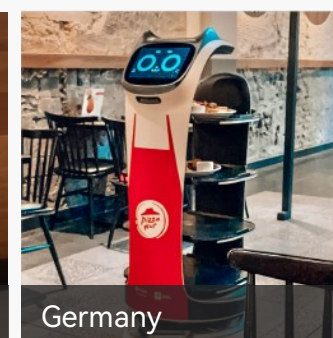
Germany

PUDU

Scale Advantage

Globalization

Pudu Robotics has established a business presence in North America, Europe, East Asia, Asia-Pacific, the Middle East and Latin America. The products have been exported to more than 60 countries and regions around the world, covering more than 600* cities worldwide. Pudu Robotics has established a trustworthy international brand image and become one of the representative enterprises of China's "intelligent" manufacturing abroad.

* Relevant statistics as of April 2023
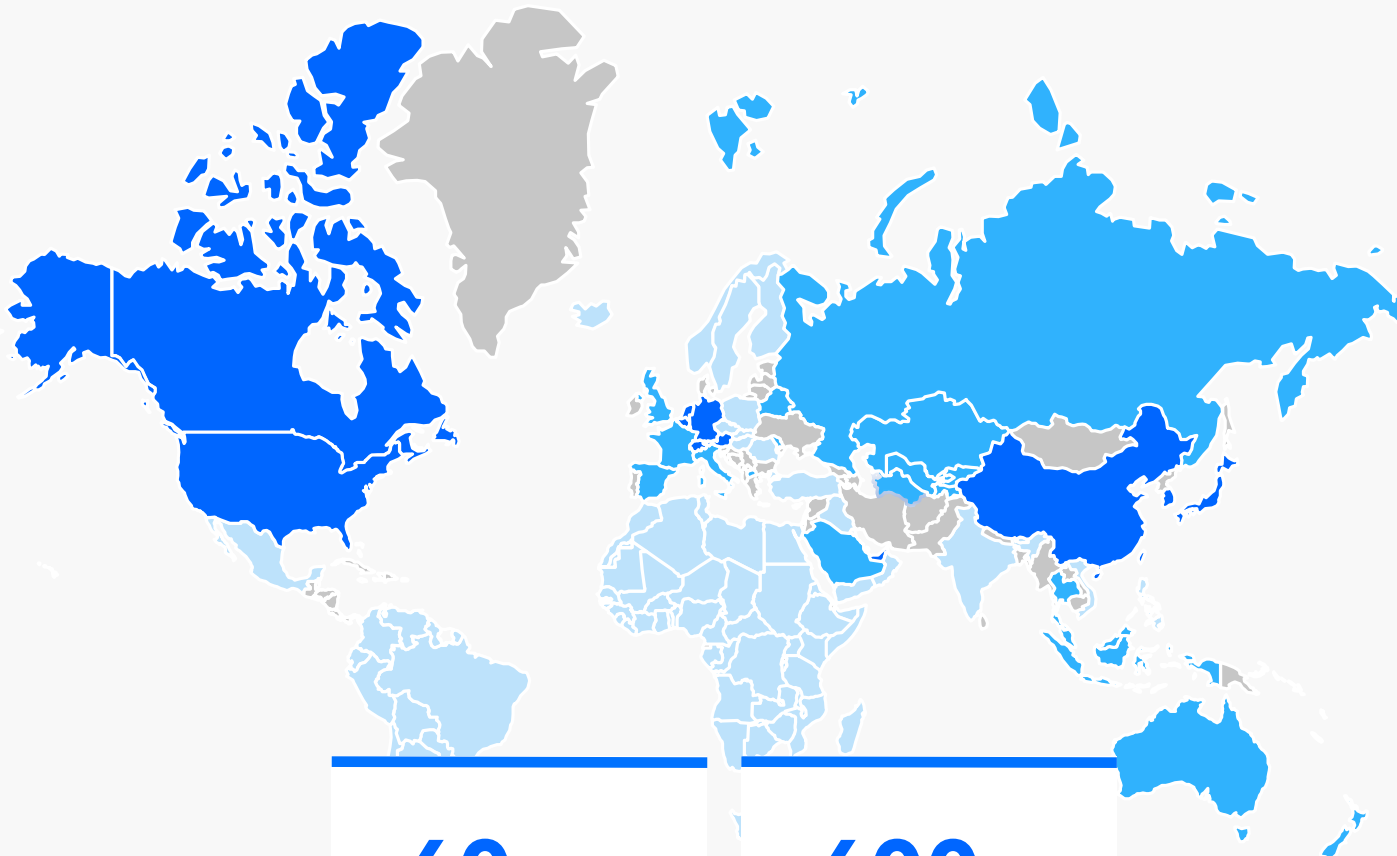
60 +
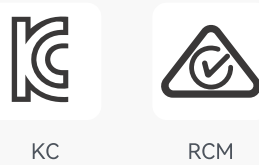- Cover more than 60 countries and regions

600 +
- Over 600 cities

▬ Level 1   ▬ Level 2   ▬ Level 3

Global Certification

The full range of Pudu Robotics robots have the following certifications worldwide

| CE | FCC | KC | RCM | IMDA | NCC | TELEC | CR | SIRIM | EAC | NSF |
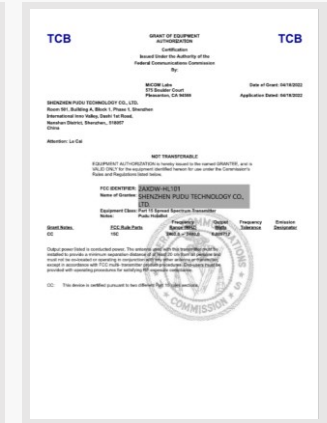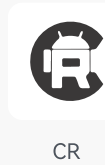
Patent Advantages

Pudu Robotics has submitted a total of 1,439 patent applications worldwide.

* Relevant statistics as of April 2023

Cooperation

80% The market share of the **Top 100** restaurant clients   **40,000+** Deployed Store

Catering Partners

Non-Catering Partners

Software and Hardware Partners

PUDU

2023

PUDU

Thank you!

📞 +86 755-86952935

✉️ Global_sales@pudutech.com

📍 5/F, Building 1A, Shenzhen International Inno Valley Phase 1, Dashi 1st
Road, Nanshan District, Shenzhen, China 518300