QSS AI & ROBOTICS
Building the Future

| **ROBOT** CATALOGUE.

Based in Riyadh, we proudly support Vision 2030 with advanced robots that transform sectors like hospitality, education, security, and cleaning, driving Saudi Arabia's technological growth.

CATALOGUE
CATEGORIES.

Quadrupeds

- • Go2
- • Go2-W
- • B2
- • B2-W

Humanoids

- • H1/H1-2
- • G1

Educational

- • Alpha Mini
- • Yanshee

Hospitality

- • X1 Delivery
- • Greeting Mini
- • Wizo

Cleaning & Facility Managment

- • SC 50
- • SC 80
- • SC 100

Yard & Landscaping Robots

- • Yarbo
- • Yarbo Attachements

QUADRUPED
ROBOTS.

Go2 DOG ROBOT

The Go2 is a highly advanced quadruped robot with enhanced mobility, powered by AI and Unitree's 4D LiDAR for 360° recognition.

It features superior torque, precise navigation, and OTA upgrades for continuous performance improvement, making it ideal for versatile applications.

Features & Technology.

- 200%Standard Ultra-wide 4D LIDAR upgrades Recognition system by 200%.
- Embodied Intelligence: AI+Robot. AI empowers the new intelligent creature.
- Battery capacity and endurance upgraded by 150%.
- Motor performance enhanced by 30%. Go2 boasts a peak joint torque of 45N.m
- ISS2.0 Intelligent Side-follow System. The positioning accuracy is technically upgraded by 50%. The remote control distance is over 30m.
- OTA Upgrades. Keep improving and evolving to be smarter.
- Robotic arm + charging pile + high computing power module. Go2 can be equipped with more high-tech accessories.

Specifications.

Enhanced Mobility	**Advanced Navigation**	**High Torque Motors**
Go2 combines rolling and walking modes, navigating complex terrains with ease.	Equipped with 4D LiDAR, offering 360 recognition for precise navigation.	Delivers 30% improved motor performance with a peak joint torque of 45N.m.
Intelligent Side-Follow	**Long Battery Life**	**OTA Upgrades**
Features ISS 2.0 for accurate positioning and remote control up to 30 meters.	Powered by a durable battery, enabling extended operation for various applications.	Supports over-the-air updates for continuous improvements and smarter functionality.

QUADRUPED
ROBOTS.

B2 DOG ROBOT

The B2 is a high-performance quadruped robot designed for industrial applications, capable of reaching speeds over 6 m/s and carrying loads up to 40 kg.

Its advanced mobility and adaptability make it suitable for tasks such as industrial inspection, emergency rescue, and power system maintenance.

Features & Technology.

- Fastest running industrial-grade quadruped robot at 6m/s
- Excellent terrain adaptability to ensure stable travel on slippery or uneven surfaces
- Excellent sustained stair climbing with extremely stable and balanced
- 170% increase in joint performance with 360 N.m of torque deliver the ultimate in performance
- Superior obstacle-crossing ability make it easy to cross the mess of wood piles, 40cm high platforms and other obstacles
- 100% increase in sustained load 200% increase in endurance
- Wheeled and legged form switching breaks through endurance limitations
- Quick battery release and reliable autonomous charging

Specifications.

High Speed Mobility	Heavy Load Capacity	Advanced Sensors
B2 achieves speeds over 6 m/s, enabling rapid movement across diverse environments.	Designed to carry up to 40 kg, ideal for industrial and research applications.	Equipped with LiDAR and HD cameras for precise navigation and obstacle detection.
Extended Endurance	**Environmental Adaptability**	**Customizable Functions**
Powered by a robust battery for long-lasting operation in demanding tasks.	Operates in extreme conditions, ensuring reliability in challenging terrains.	Offers integration with accessories like robotic arms for enhanced versatility.

Go2-W
DOG ROBOT

The Go2-W is a versatile quadruped robot with motorized wheels and pneumatic tires, transitioning seamlessly between rolling and walking. It navigates complex terrains, tackles obstacles up to 70 cm, and handles 35º slopes.

Equipped with advanced sensors and an 8-core CPU, it delivers precise navigation, 1.5-3 hours of endurance, and supports an 8 kg payload at speeds up to 2.5 m/s.

Features & Technology.

- Dual-Mode Mobility: Rolls and walks with terrain adaptability.
- Advanced Sensors: LiDAR and HD cameras for precise navigation.
- Long Battery Life: 15,000 mAh for up to 3 hours.
- High Payload: Carries up to 8 kg efficiently.
- AI Intelligence: 8-core CPU for smart navigation.
- Versatile Terrain: Tackles 35º slopes and 70 cm obstacles.

Specifications.

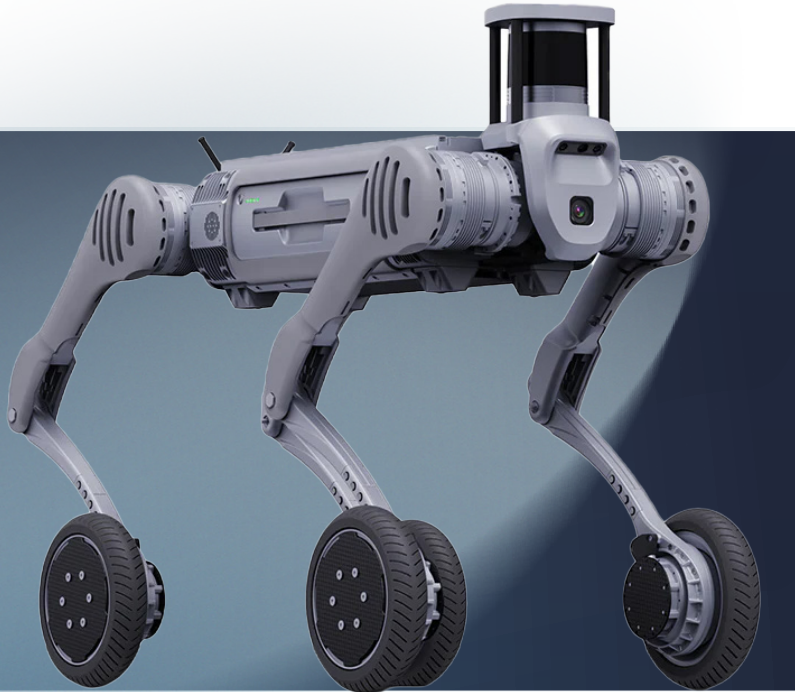| **Dynamic Mobility**	**Precision Navigation**	**High Payload Capacity**
Equipped with motorized wheels and walking capabilities, Go2-W adapts to various terrains, including slopes and obstacles.	Advanced sensors, including LiDAR and wide-angle cameras, ensure accurate navigation and obstacle detection.	Carries up to 8 kg, making it suitable for diverse applications in logistics and industrial tasks.
Energy Efficiency	**Fast and Agile**	**Intelligent Control**
Powered by a 15,000 mAh battery, offering 1.5 to 3 hours of operational endurance.	Achieves speeds up to 2.5 m/s, balancing agility and control across environments.	Features an 8-core CPU for seamless performance and integration with advanced AI systems.

QUADRUPED
ROBOTS.

B2-W
DOG ROBOT

B2-W is a high-performance quadruped robot designed for industrial and research applications.

It features exceptional mobility, a 40 kg load capacity, advanced sensors for precise navigation, and extended battery life, making it ideal for challenging environments and demanding tasks.

Features & Technology.

- Dimensions (Standing) - Approximately 1098 mm (L) × 450 mm (W) × 745 mm (H)
- Weight - Approximately 75 kg (including battery)
- Battery Capacity - 45 Ah (2250 Wh)
- Maximum Speed - Up to 5 m/s
- Load Capacity (Moving) - Up to 40 kg
- Operating Temperature - 20ºC to 55ºC

Specifications.

High Mobility Achieves speeds up to 5 m/s, enabling rapid movement across various terrains.	**Significant Load Capacity** Capable of carrying loads up to 40 kg while in motion, suitable for industrial applications.	**Extended Battery Life** Equipped with a 45 Ah battery, providing 4 to 5 hours of operation depending on load.
Environmental Resilience Operates effectively in temperatures ranging from -20 C to 55 C, ensuring functionality in diverse climates.	**Advanced Sensing** Integrated with multiple depth and high-definition cameras for enhanced navigation and obstacle detection.	**Robust Design** Built to handle complex terrains, including the ability to climb stairs with step heights up to 16 cm.

HUMANOID
ROBOTS.

H1 ROBOT

Highest power performance in the world's approximate specifications
The advanced powertrain provides the highest level of speed, power, maneuverability and flexibility.

The first full-size general-purpose humanoid robot that can run
Possessing a stable gait and highly flexible movement capabilities, it is able to walk and run autonomously in complex terrains and environments.

360° Depth Perception
Equipped with 3D LiDAR + depth camera, real-time acquisition of high-precision spatial data to achieve panoramic scanning.

Specifications.

Body Size Value	Athletic Ability	Peak Torque Density
Height about 180 CM Weigh about 47kg	Walking speed > 1.5 m/s Potential athletic performance > 5m/s	189N.m/Kg
Endurance	**360 Degree Depth Sensing**	**Maximum Joint Torque**
Battery capacity: 864Wh, quickly replaceable	3D LIDAR + Depth Camera	360 N.m

Basic Information.

- Key size: (1560+200)mm*570mm*220mm; (Body height 1.56m); head height 0.2m;
- Body width: 0.57m; body thickness: 0.22m
- Length of thigh: 400mm; Length of calf: 400mm
- Length of the big arm: 338mm; length of the small arm: 338mm;
- Single leg freedom: hip*3+knee*1+ankle*1=5;
- Single arm freedom: 4 (expandable);
- Weight of the whole machine: about 47kg;
- Limit torque of joint unit: about 360N.m for knee joint, 220N.m for hip joint, 45N.m for ankle joint and 75N.m for arm joint;
- Walking speed: >1.5m/s (potential movement capacity >5m/s) ;
- Battery: capacity 15Ah (0.864KWh), maximum voltage 67.2V;
- Control and perception arithmetic: 2*Intel Core i7-1265U;
- Perception sensor configuration: 3D LIDAR + depth camera Intel D435i

H1-2 Discover Hidden Highlights.

Dual Encoder	All Cables are built-in	Ergonomics Bionic Shape
Accurate and stable without fear of interference	Compact design improves mobility	Highly technological appearance
Oprional Higher Computing Power	**Computer Module More Reasonable Layout**	
Optional as needed unlimited upgrades	Optional 5 boards inside the fuselage	

G1 ROBOT

Flexibility beyond ordinary people
Extra large joint movement angle space, 23~43 joint motors

Imitation & reinforcement learning driven
Robotics technology accelerated by AI is upgrading and evolving every day.

Force control dexterous hand, manipulation of all things
Combined with force-position hybrid control, it is sensitive and reliable, and can simulate human hands to achieve precise operation of objects

Basic Information.

- 3D LIDAR: LIVOX-MID360
- Depth Camera: Intel RealSense D435i
- Microphone Array: Noise Cancellation, Echo Cancellation
- Speaker: Stereo, 5W Power
- Extra Large Quick Release Battery: Provide Lasting Power
- Single arm Degrees of Freedom: shoulder 3+Elbow, 2+Wrist 2 (optional)
- Hollow joint wiring of the whole machine: No external cables
- Core Motion Module: Maximum Torque at joints 120 N.m
- Single leg degrees of freedom: Hip 3+ Knee 1+ Ankle 2
- Mobility: Moving speed of 2m/s

Specifications.

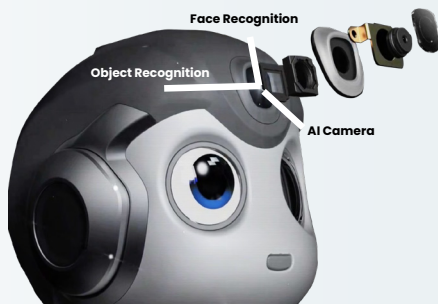| Body Size Value	Dex 3-1 Force Control dexterous hand	Total degrees of freedom
Weight about 35 kg Height about 130 CM	3-finger force control dexterous hand (optional installation of tactile sensor arrays)	≥ 43 pieces
Battery Life	**360 Degree Detection Perception**	**Maximum Joint Torque**
About 2h	3D LIDAR + Depth Camera	120 N.m

ALPHA-MINI ROBOT

The humanoid robot AlphaMini is the ideal platform for teaching AI robotic knowledge and applications at various levels.

He can serve as both a versatile teaching assistant and an essential carrier for AI robotic curriculum delivery.

Teaching Assistant

AlphaMini can deploy customized teaching activities on either a one-to-one basis or in small groups. He can help educators to teach core subjects including reading, writing, math, English...as well as a wide range of fields linked to robotics such as mechanics, motion control and computer science.

Face Recognition

Object Recognition

AI Camera

Product Information.

- HD Camera
- 16 degrees of freedom
- Dual IPS LCD screen
- 14 servo motors
- 3 sensors
- Gyroscope
- 4microphones
- Stereo sound
- Windows PC / iOS and Android tablet programmable
- Communication kit

Increasing Student Engagement.

AlphaMini has been designed to make its interaction with human beings as natural and intuitive as possible. He can easily build emotional links with teachers and students with his eye-catching appearance, vivid facial expressions and highly human-like behaviors such as sneezing.

Students Creating Their Own Intelligent World.

AlphaMini is a fully programmable robot. Based on the "Learning + making" education approach, the AlphaMini platform allows students to learn and practice AI robotic technologies and skills, which leads to finally innovate.

Specifications.

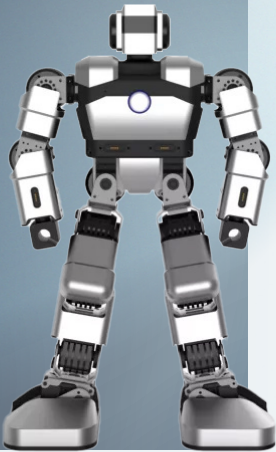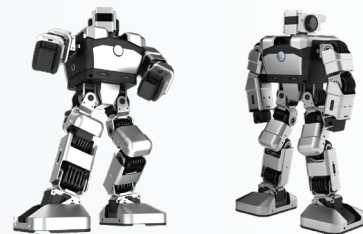| Touch Sensor	4 Mic Array	Dual IPS LCD 1.22 Inches	Stereo Speakers
Easy Activation	Vouce Recognition from up to 3-5M Away	260,000-Color TFT Display Resolution 240*240	Dual Track, High Quality Stereo Sound
TOF IR Sensor	Connectivity	Directional Sensors	Servo Movement Technology
Detect Obstacles and Distance	Colorful, Wide Angle LCD Screens	Gryoscope, Accelerometer & GPS	14 Micro Servos Ensure Smooth Mobility

YANSHEE ROBOT

Yanshee = Robot + AI
Raspberry PI = Open Source hardware + education
Yanshee + Raspberry Pi = Open source humanoid robot
Education Platform

Yanshee is an open source humanoid robot education platform for students in K12, middle and vocational colleges and universities. It is used in course teaching, competitions, scientific research activities and other scenarios to help students learn AI, programming, robot engineering and other relevant knowledge.

Product Information.

- Open hardware platform
- Rich athletic ability
- All-round AI capabilities
- Rich and complete development API

User-friendly Software.

The Yanshee App features a game-like interface and can be used for motion control, Blockly programming, PRP and related learning courses.

Specifications.

Body Size Value	Dex 3-1 Force Control dexterous hand	Total degrees of freedom
Weight about 35 kg Height about 130 CM	3-finger force control dexterous hand (optional installation of tactile sensor arrays)	≥ 43 pieces
Battery Life	**360 Degree Detection Perception**	**Maximum Joint Torque**
About 2h	3D LIDAR + Depth Camera	120 N.m

X1 ROBOT

X1 Delivery Robot is an autonomous delivery robot.

It provides a cost-effective smart delivery solution for the hospitality industry where labor shortage and increasing labor costs are of top challenges. Being the first product of the delivery line, X1 performs basic point-to-point autonomous delivery of food, beverage, or various cargos. The autonomous delivery robot has advanced localization and environmental perception capabilities powered by QSS AI & Robotics industry-leading navigation technology and a cutting-edge sensor system. It also adopts advanced shock mitigation mechanisms to provide a stable, spill-proof delivery process.

Product Information.

- dTOF LiDAR – Class-leading ranging and 3D imaging for all-round perception of the surrounding environment.
- TOF Camera – Processing high definition depth image data for high-precision positioning
- 3D Camera x 2 – Class-leading ranging and 3D imaging for all-round perception of the surrounding environment.

Specifications.

Marker-less Deployment	Strong Possibility	Super Productivity
Automatic mapping without scanning QR location code, saving 75% deployment time	Effortlessly passing through narrow aisles supported by high-precision sensors	Holding up to 30kg of heavy load and reaching up to 3 tables in one go.
High Performance Battery	**Industry-leading Shock Mitigation**	**Multi-robot Collaboration**
Adopting lithium phosphate battery – higher thermal stability and longer endurance	A combo of independent suspension chassis and shock absorbing trays for best shock mitigation effect	Able to realize intercommunication between robots to work collaboratively in large sites

GREETING-MINI
ROBOT

Greeting Mini is a master of security, greeting and leading.

The powerful voice function and large interactive screen are perfect for a variety of reception needs, and the smaller body is more flexible to cover a greater range of scenarios.

This robot provides customers an unparalleled security service experience.

Product Information.

- Promotion Mode – can greet at a fixed point or move around to attract customers.
- Leading Mode, it is small and navigates with ease. The minimum channel diameter of the chassis is 55cm, which is perfect for all kinds of small spaces.
- Open development platform supports deep customization – gives more functions, adapts to more scenarios and meets more needs.

Specifications.

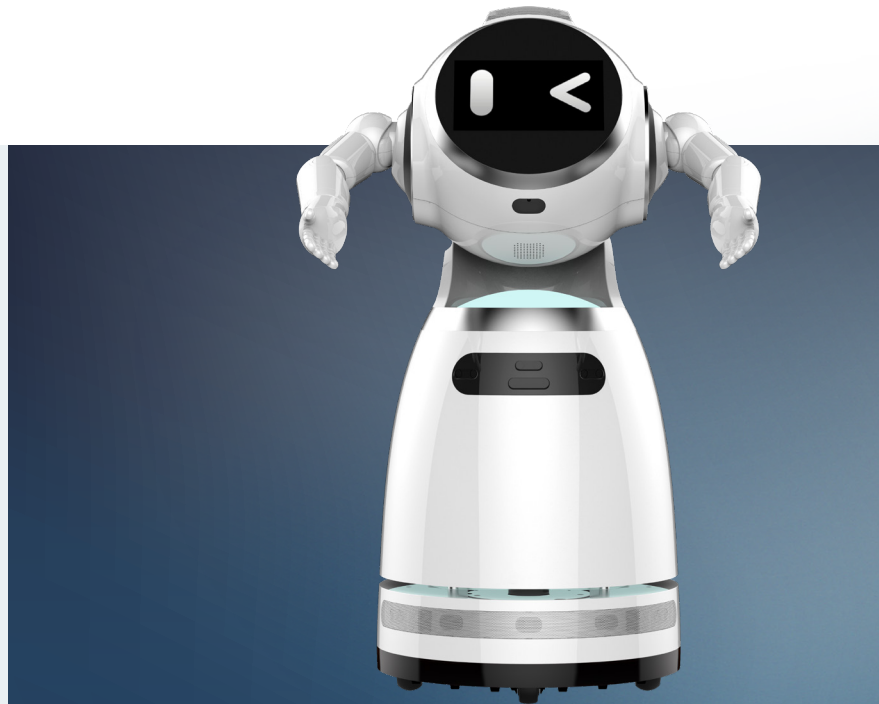| High end visual experience	6-Mic Circular Array	HD Wide-Angle Dual Camera
Large impressive 14-inch HD screen, which is better equipped to display more information at a single time.	The advanced microphone array (6-Mic) is located in the center of the head, and the speech recognition accuracy of Greeting Mini is greater than 97% even in a noisy environment of 75dB.	With 13 million pixels, Greeting Mini can boast the industry's clearest vision. Light input exceeds that of a normal camera by 400%.
Hi-Fi Subwoofer	**Advanced Greeting Mini Chassi**	**Self-charging, Cycle Service**
Equipped with 30W super power and 5 independent sound modules.	Strong chassis R&D and 30,000+ cases power the upgraded GreetingBot Mini with an exclusive mobile chassis, lidar, and depth camera for precise navigation and smart following.	When power drops below 10%, GreetingBot Mini automatically returns to the charger. Non-stop work, 24/7.

HOSPITALITY ROBOTS.

WIZO ROBOT

Wizo is an intelligent, cloud-based humanoid robot designed by QSS to enhance customer experiences and streamline operations. Equipped with features like 360° navigation, multi-modal interaction, and advanced sensors, it excels in greeting, guiding, and promoting. With customizable functionality and automatic recharging, Wizo offers efficient, human-like assistance.

Product Information.

- 6+0 Mic Array – Maximum 5 meters
- High Definition Camera - 13 Million HD Camera
- Humanoid Design Full-body 15 high-performance servo drives
- TOF Sensor – antifall cliff detector
- Stereo Obstacle Avoidance Navigation 6 sensors work together in 360 degrees
- Highly Soft E-skin Both arms covered
- Automatic Recharge System infrared automatic recharge sensor
- Wheel Motor + Suspension Shock-resistant System Quiet Movements

Specifications.

High end visuals and Personalized Greetings	Business Consultation Services	Guided Tours
Wizo provides a superior visual experience. The robot greets visitors with tailored welcome messages, offering a unique, innovative experience.	Wizo delivers voice, text, video, and action-based consultations, Q&A sessions, guidance, and processing.	With U-SLAM navigation, Wizo ensures precise and efficient tour guidance.
Robot Promotion	**Interaction Entertainment**	**Intelligent Check-in**
In idle mode, Wizo navigates venues, broadcasting policies and advertisements automatically.	Wizo's programmable arms and motion control create engaging experiences like dance performances.	Face recognition enables seamless sign-ins and secure attendance tracking.

CLEANING & FACILITY MANAGMENT
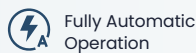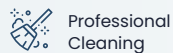## ROBOTS.

SC50 ROBOT

Scrubber 50, an autonomous indoor scrubber, intelligently adapts to its environment for efficient cleaning. It self-charges, dispenses, and refills, ideal for hospitals, hotels, malls, and offices.

Product Information.

- Groundbreaking Auto Spot Cleaning
- Up to 1490 ㎥/h cleaning efficiency
- Smart obstacle avoidance and rerouting
- Remote-control mobile app
- One-stop service workstation
- Durable LFP batteries of 2,000 cycles
- Built-in water-saving filtration system

Smart Recognition

Professional Cleaning

Fully Automatic Operation

Specifications.

3-in-1	**Spot Cleaning Mode**	**2 Main Brush Options**
Integrates scrubbing, sweeping, and dust mopping in a single solution.	Proactively detects and cleans waste using RGB camera and AI algorithms, bringing up to 400% efficiency improvement.	Choose between a disc brush or a roller brush to suit your specific cleaning requirements.
Water Recycling	**Quick-release Cleaning components**	**Docking Stations**
Features a built-in multi-stage filtration system that recycles and reuses water, reducing freshwater consumption by approximately 80%.	The squeegee assembly and filter components feature a quick-release design for tool-free disassembly and reassembly within seconds.	Optional workstation for self-docking power charging and water management.

SC80 ROBOT

Innovative Cleaning Solution for Large Spaces

Corners and edges often pose challenges for traditional cleaning methods. The Scrubber 80 sets a new standard as the first cleaning robot to ensure thorough and comprehensive cleaning in every scenario.

Product Information.

- Automatically adjustable roller brush, adaptable to various floors.
- Enable a cleaning efficiency of up to 4,000 m2/h.
- Deliver excellent runtime of up to 4-6 hours with 36 V/200 Ah high-capacity battery, 140 L water purification tank and 170 L sewage tank.
- Support timed tasks, automatic wake-ups, and scheduled operations.
- No filtration, higher cleaning quality, lower cost on consumables and maintenance
- Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process
- Come with warning lights, giving the position of the floor scrubber in various environments to ensure the safety of people and the device.
- Automatically upload operation reports. Data reports are available at your fingertips.

Adaptive Cleaning	High-quality Cleaning	Remarkable Efficiency

Specifications.

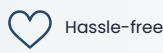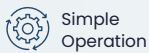| **Huge Tank Capacity**	**Multiple sensors**	**5 Hours Battery**
140L Clean Tank & 170L Solution Tank 1.5L Trash Tray	6-beam&Single Beam lidar, visual sensor, ultrasonic, wheel speed motor, IMU, and passive collision sensors for detecting various obstacles from all directions	Battery auto recharge, water auto refill, dirty water auto dispense
4 CM Edge	**Side brush & Roller brush**	**4,000 SQM**
Ability to reach edges & corners to 4cm from the wall	Light sweeping & 60kg scrub pressure	High cleaning productivity up to 4000 sqm per hour

SC100 ROBOT

Floor cleaning in industrial sectors, including manufacturing, warehousing, and logistics, often suffers due to manpower shortages. The S100-N addresses this challenge by delivering consistent cleaning performance, covering up to 3,000 sqm per hour, with the added capability of automatic return to its parking station.

Simple Operation

High-quality Cleaning

Hassle-free

Product Information.

- Automatically adjustable roller brush, adaptable to various floors.
- Enable a cleaning efficiency of up to 4,000 m2/h.
- Deliver excellent runtime of up to 4-6 hours with 36 V/200 Ah high-capacity battery, 140 L water purification tank and 170 L sewage tank.
- Support timed tasks, automatic wake-ups, and scheduled operations.
- No filtration, higher cleaning quality, lower cost on consumables and maintenance
- Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process
- Come with warning lights, giving the position of the floor scrubber in various environments to ensure the safety of people and the device.
- Automatically upload operation reports. Data reports are available at your fingertips.

Specifications.

3000 SQM	Multiple sensors	Dust Suppresion
Consistent cleaning productivity up to 3000 sqm per hour	Long-range lidar, visual sensor, ultrasonic and passive collision sensors for detecting various obstacles from all directions	Powerful sweeping & Dust suppression with water spray
Perfect Edge Cleaning	**Detachable Dust Box**	**6 Hours Battery**
100cm sweeping widith with double side brush achieve 0 distance edge cleaning	Flexible & Detachable 60L Dust box,easy to maintain well cleaning condition	Runs for up to 6 hours on a single charge

YARD & LANDSCAPING
ROBOTS.

YARBO ROBOT

The Yarbo Lawn Mower is an advanced robotic mower designed for large and complex yards. It can handle areas up to 6 acres and navigate slopes up to 35 degrees. Its flexible cutting deck adjusts to terrain contours, providing a precise cut with adjustable heights from 1.2 to 4 inches. Equipped with stereo vision and 360° sensing, it offers wire-free navigation and obstacle avoidance. Additional features include auto-recharging, weather detection, GPS tracking, and remote control capabilities.

Product Information.

- Modular Design for multi-purpose use
- Fully Autonomous Operation
- 3,500 lbs Towing Capability
- Live Video Streaming & Surveillance
- Eliminates Manual Labor
- All-Terrain Track System, 70% (35 degrees) maximum slope
- 360 degree - Advanced Obstacle Detection System
- 6 acres (25,000㎡)

Yarbo Trimmer Attachment.

Yarbo Trimmer is a robotic tool designed for precision cutting, using advanced vision technology to handle edges, flower beds, and tough weeds without causing property damage.

Yarbo Edger Attachment.

Yarbo Edger is the first robotic solution for creating clean and precise borders along driveways, sidewalks, and roads. Equipped with stereo depth perception, it moves accurately along lawn edges, adjusting as needed to deliver a neat, professional finish.

Specifications.

Terrain-Adaptive Grass Cutting Yarbo's flexible deck follows ground contours, cutting precisely on slopes and maintaining lawn height.	**Perfect for Large Lawns** Yarbo covers up to 6 acres, matching commercial ride-on mowers for big yards.	**Adjustable Cutting Height** Easily set the cutting height from 1.2 to 4 inches for a customized look.
Precision with Stereo Vision Yarbo's binocular camera enables depth perception, auto mapping, visual navigation, and obstacle avoidance.	**Safe Under Trees** Stereo Vision and ODOM ensure safe navigation even with weak RTK signals.	**AI Mapping Assistant** Yarbo's AI-powered mapping assistant simplifies setup by accurately identifying lawn edges.

FOR MORE
INFORMATION.

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