The Third-gen Automotive Revolution

Pioneer of Autonomous Driving Moving Space

Founded in 2017, PIX is now a pioneer of the world's third generation of automobiles, Moving Space. PIX uses its self-driving skateboard chassis platform to create a variety of Moving Spaces, including the mobile café and cosmetic room. The ultimate objective is to realize the two-way mobility between people and their living spaces. Until now, PIX has received investment from SOSV, Japan TIS Inc., and a number of A-share listed companies. The team consists of individuals from seven different nations, including Italy, the United States, Japan, and India. They have effectively expanded their product reach to more than 20 countries across the globe. With a track record of over 30 completed products and collaborations with over 400 ecological partners, PIX remains at the forefront of driving innovation in the industry.

The Urban Organism

Futuristic and eye-pleasing exterior design, based on sleek and harmonious aesthetics

Comfortable and safe mobility experience, with human-oriented interior details

High-performance Drive-by-Wire Chassis

Automotive grade Drive-by-Wire unit. Reliable, stable four-wheel steering customizable, and easy to use

For Multiple Scenarios

Adjustable configuration and technical solutions for different scenarios

Safety Redundancy

Putting safety as the priority, to offer comfort and diverse activities in the mobility experience

Cloud Platform

Online vehicle management with 30+ services including data monitoring, firmware upgrade

Bi-Directional Design

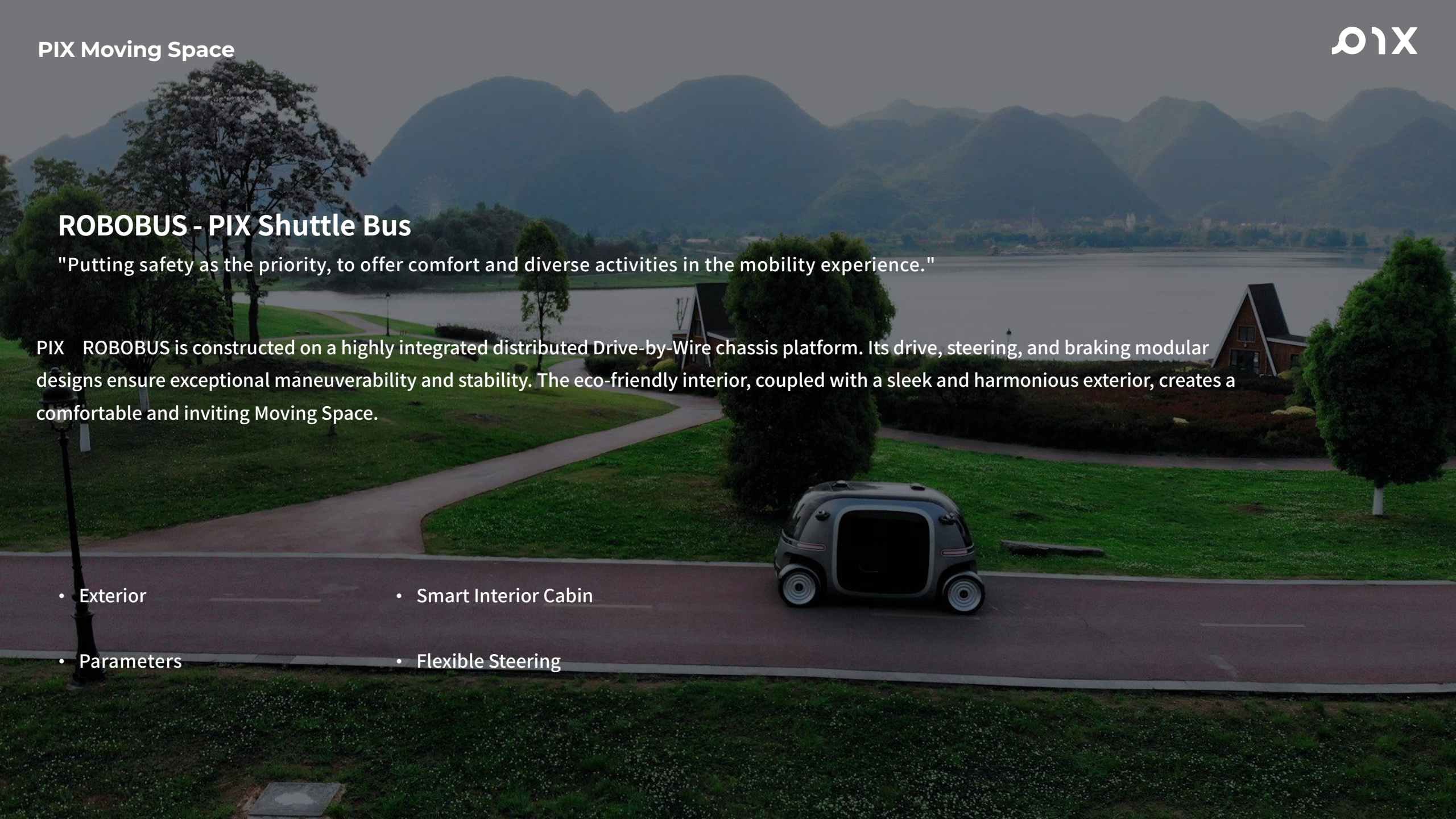
Symmetrical circular headlights around the front and rear, with simple cozy interiors to bring brand new experience

Smart Mobility

Mobility is made easier with the in-car intelligent interaction system, real-time route monitor, and one-click hail service

L4 Auto-Driving

Driving safety in various scenarios is made possible by full-stack sensors.



ROBOBUS - PIX Shuttle Bus

"Putting safety as the priority, to offer comfort and diverse activities in the mobility experience."

PIX　ROBOBUS is constructed on a highly integrated distributed Drive-by-Wire chassis platform. Its drive, steering, and braking modular designs ensure exceptional maneuverability and stability. The eco-friendly interior, coupled with a sleek and harmonious exterior, creates a comfortable and inviting Moving Space.

- Exterior
- Parameters
- Smart Interior Cabin
- Flexible Steering

PIX Moving Space

Modular Mounting Brackets for Sensors

Suitable for most sensors in the market

Panoramic Glass Sunroof

Indulge in open views

Massive Curved Acrylic Window

Front and rear windshields feature large-angle curved plexiglass with an anti-scratch film, ensuring durability and visual clarity.

Symmetrical Circular Lights Stack

Electric Sliding Door

Automatic opening and closing for intelligent interaction

PIX Moving Space

“Your Space”

Step into the future of mobility with home-like interiors that offer an immersive life experience on wheels.

Standard Configuration

- Reading Lights
- Interactive Screen
- Massive Display Screen
- Seat Belts
- Safety Hammer
- Music Display

Optional

- Ambient Lighting

Basic Parameters

Type of Chassis Platform

Distributed Drive-by-Wire Chassis Platform

Top Speed

30KM/h

Maximum Load

1890KG

Passengers Allowed

6 People

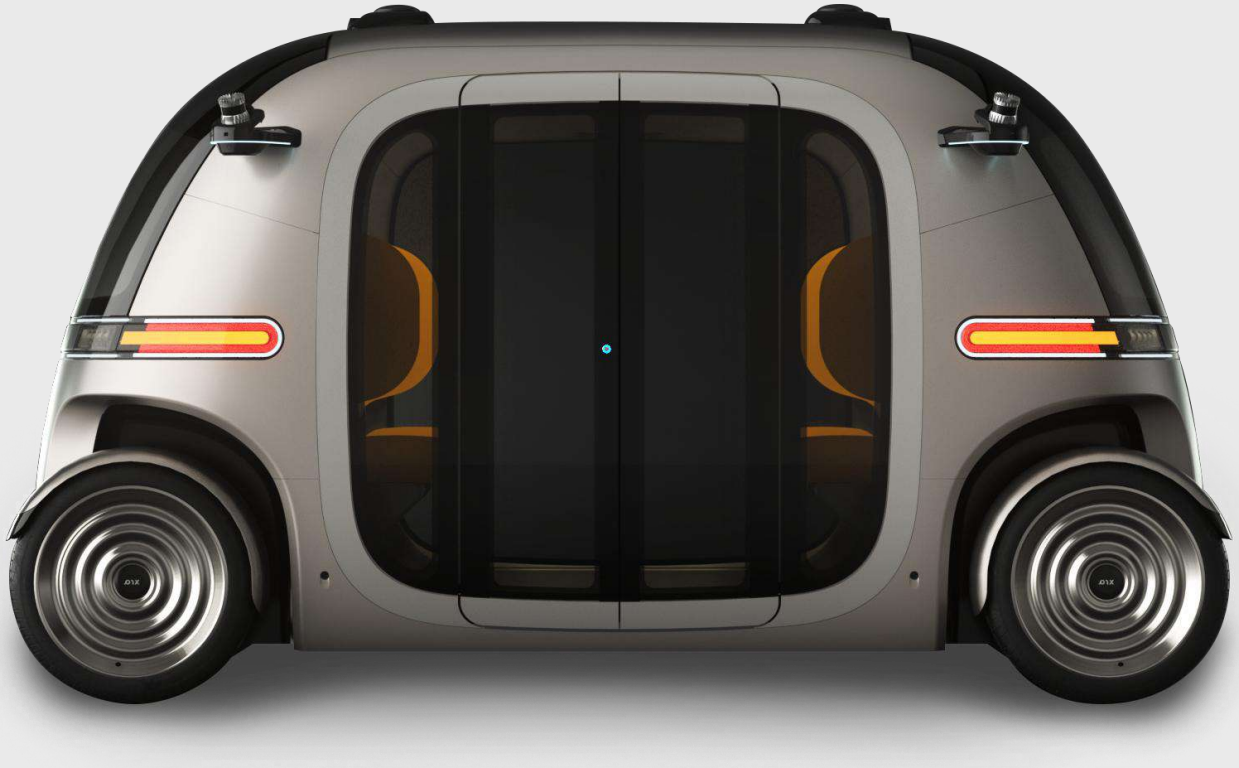
Driving Range

70KM-100KM

Maximum Gradeability

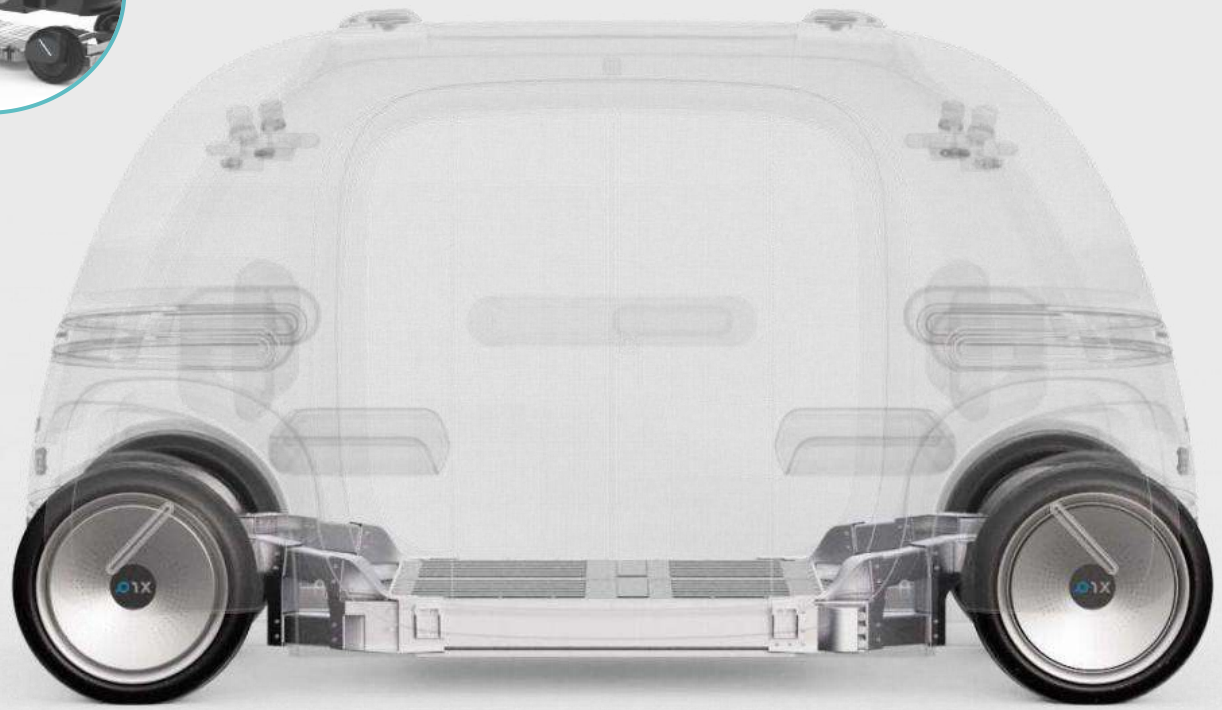
20%

PIX Moving Space



Length-Width-Height	3820×1862×2268mm
Wheelbase	3020mm
Wheel Tread(Front/Rear)	1620/1620mm
Curb Weight	1890kg
Maximum Load	510kg
Minimum Gound Clearance	140mm
Minimum Turning Radius	4.5m
Suspension Form	Independent Double-wishbone Suspension

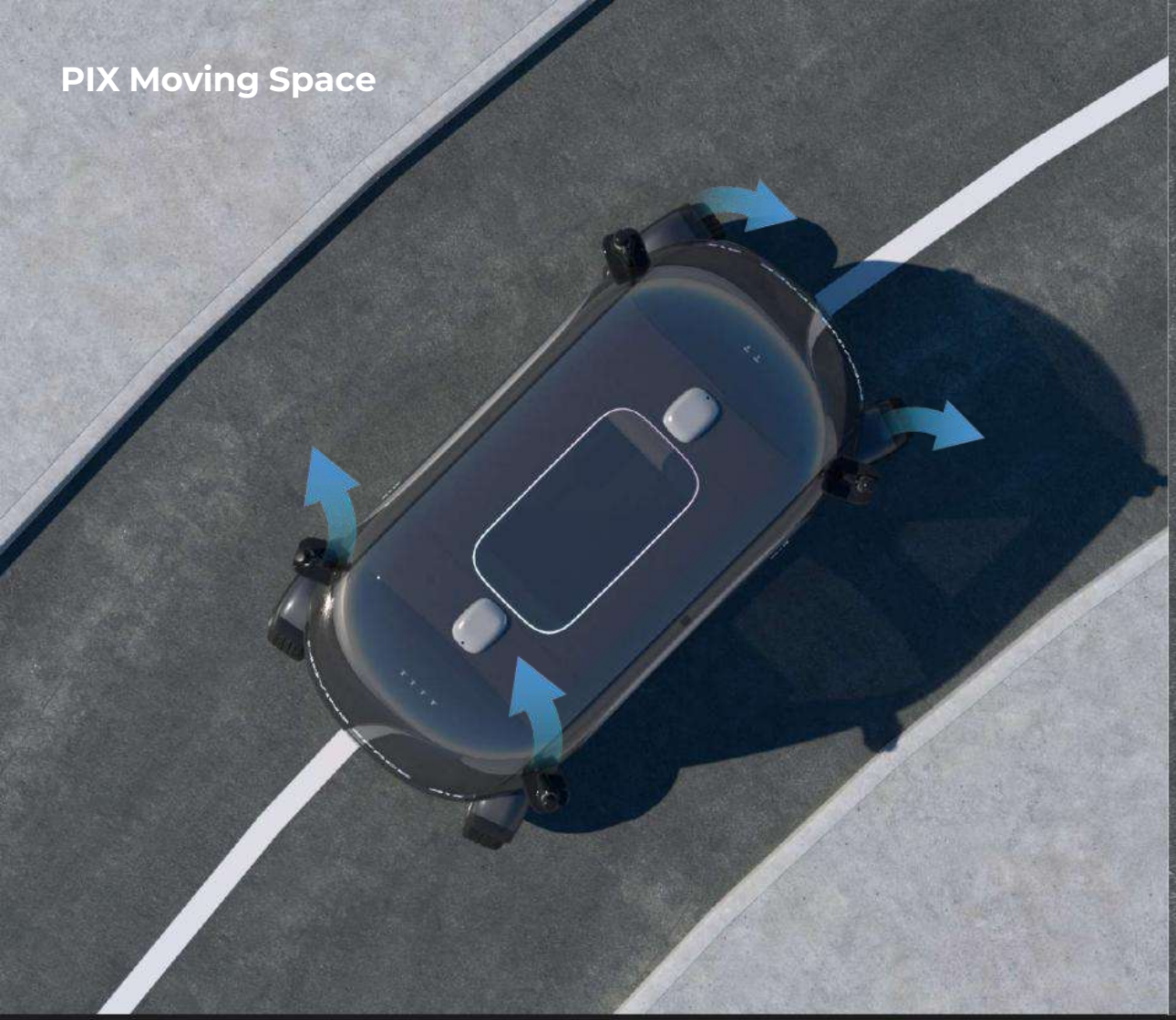
PIX Moving Space



PIX Ultra- Skateboard

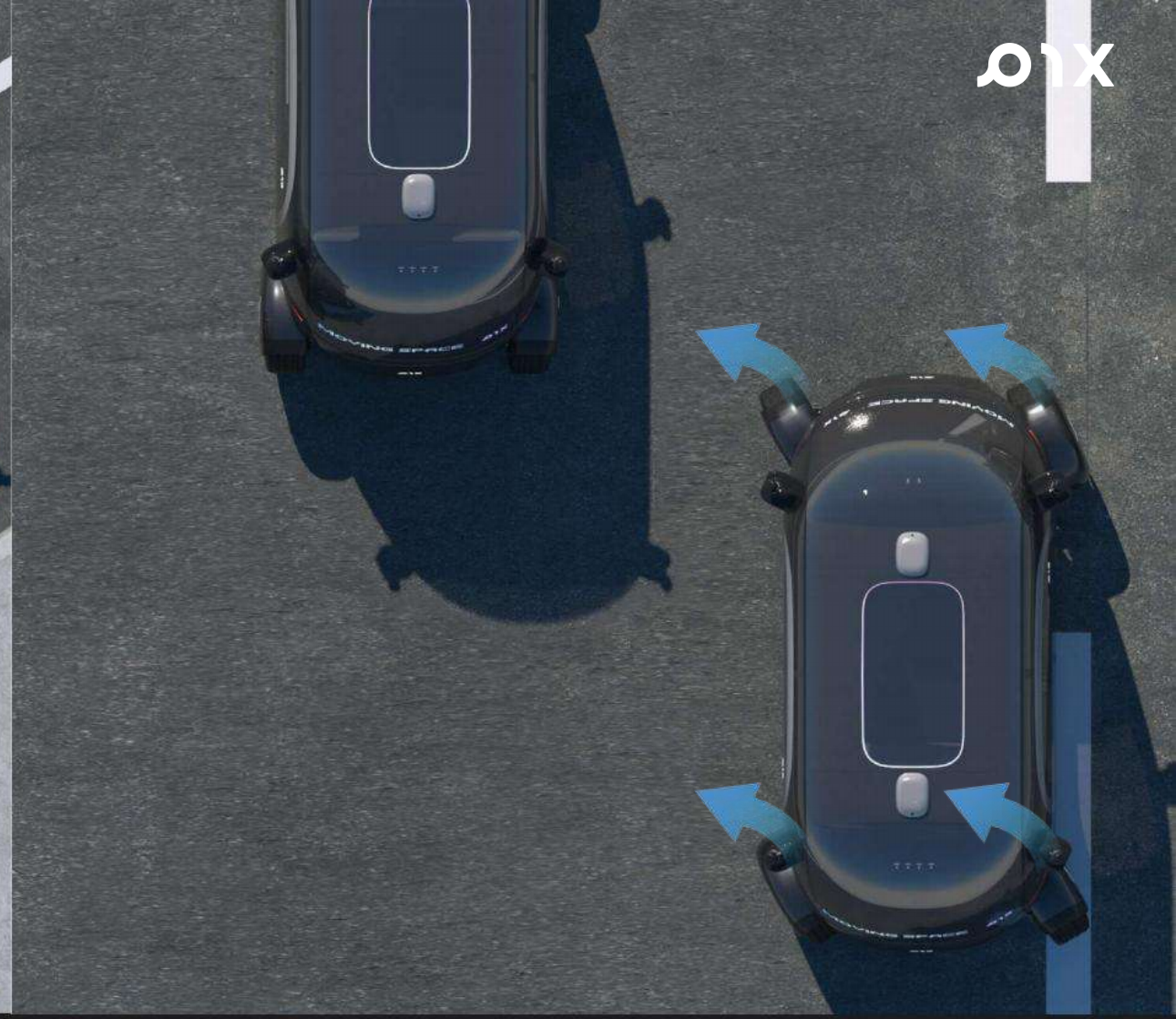
Driving Range	100km
Max. Gradeability	20%
Body Structure	Separate Frame Construction Body
Power Battery Type	307V Lithium Iron Phosphate
Battery Capacity	31.3 kw· h
Brake System Type	Hydraulic Brake+Electronic Brake
Drive Mode	Four-wheel Distributed (Independent) Drive
Drive Motor	Permanent Magnet Motor
Fast/Slow Charging Time	0.5h/6h(20%-80%)

PIX Moving Space



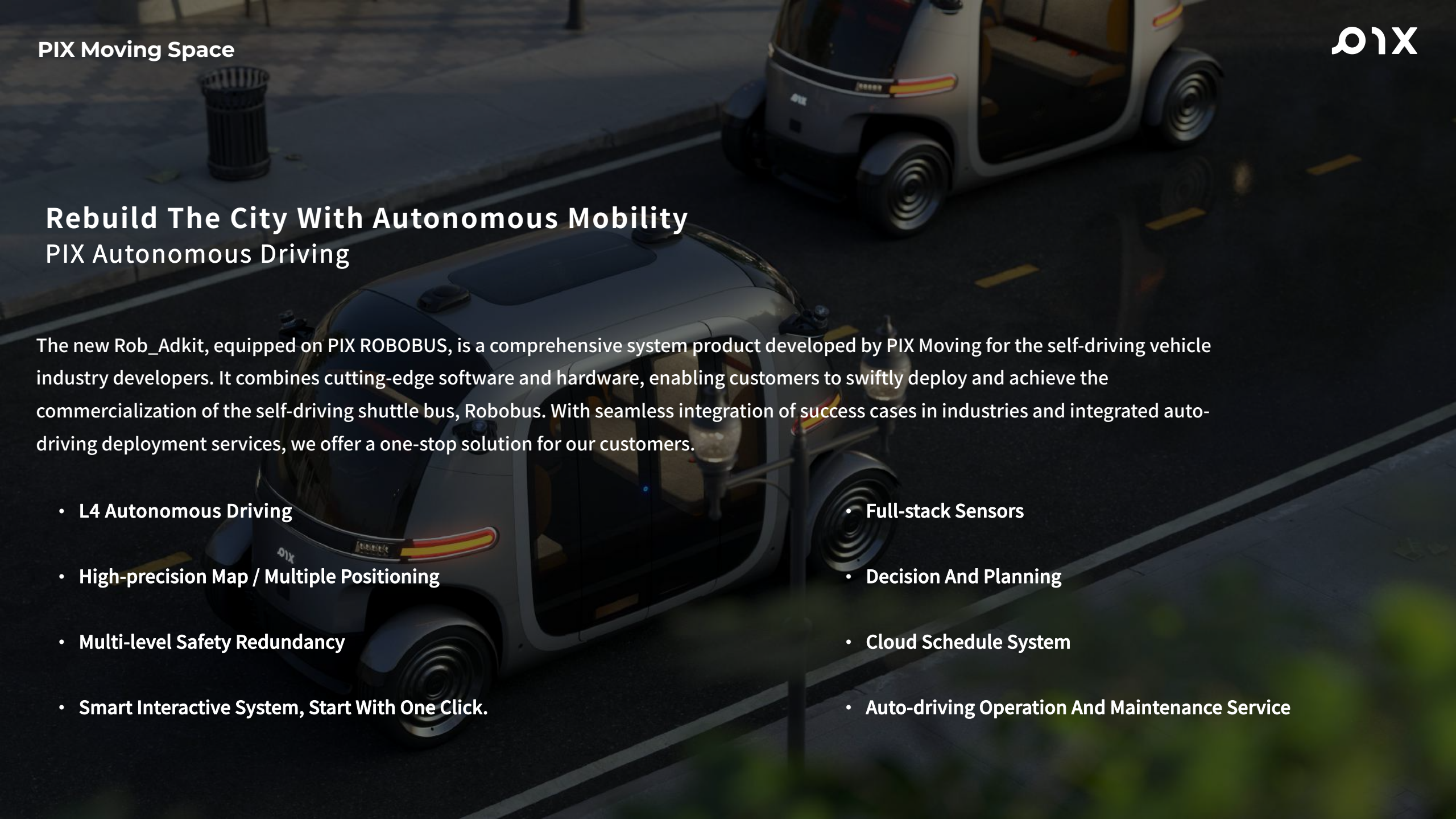
4-wheel differential steering to navigate through narrow roads

Minimum Turning Radius 4.5m



4-wheel synchronized steering for better parking experience

Parallel Steering



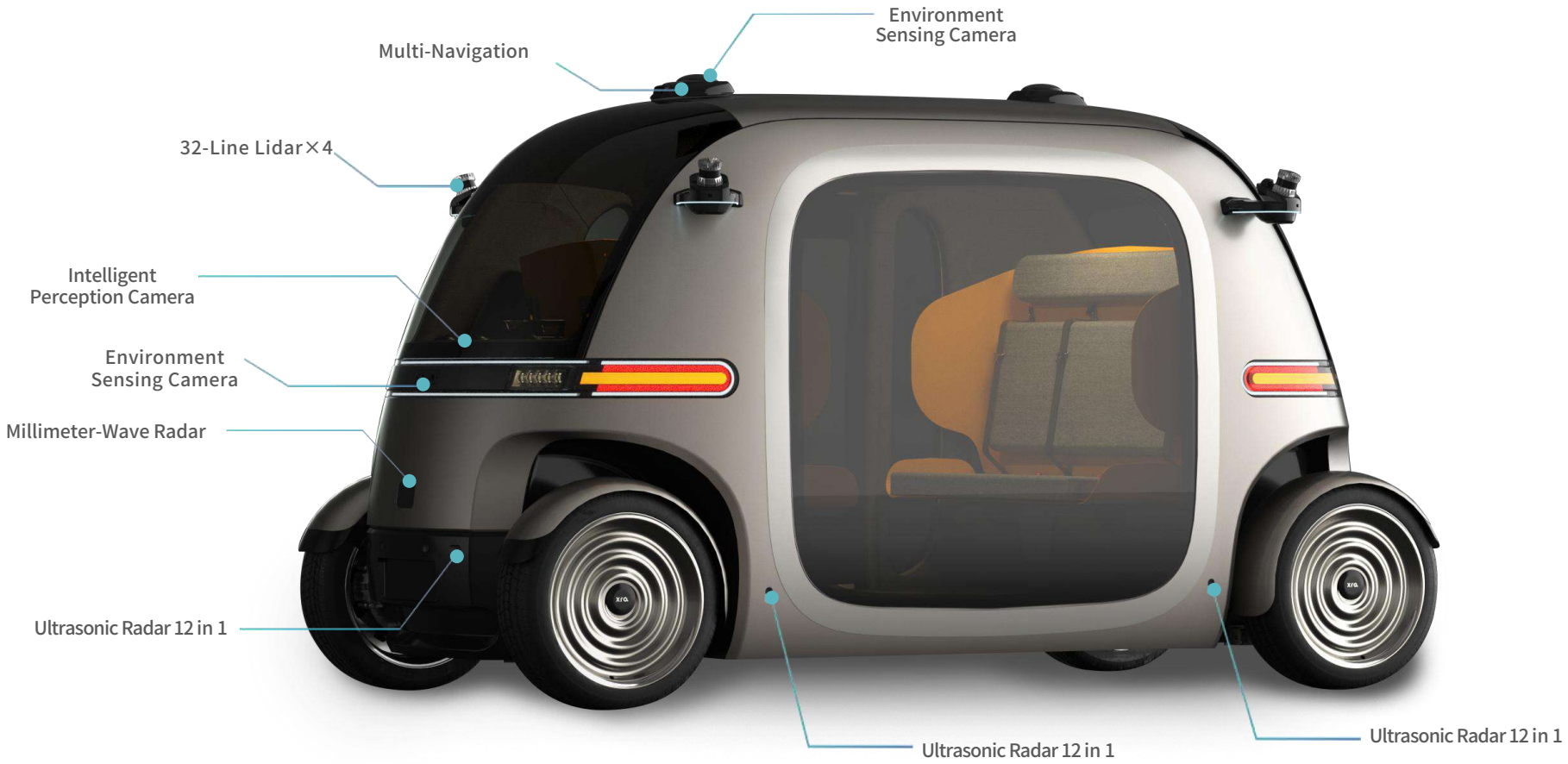
Rebuild The City With Autonomous Mobility

PIX Autonomous Driving

The new Rob_Adkit, equipped on PIX ROBOBUS, is a comprehensive system product developed by PIX Moving for the self-driving vehicle industry developers. It combines cutting-edge software and hardware, enabling customers to swiftly deploy and achieve the commercialization of the self-driving shuttle bus, Robobus. With seamless integration of success cases in industries and integrated auto-driving deployment services, we offer a one-stop solution for our customers.

- **L4 Autonomous Driving**
- **High-precision Map / Multiple Positioning**
- **Multi-level Safety Redundancy**
- **Smart Interactive System, Start With One Click.**
- **Full-stack Sensors**
- **Decision And Planning**
- **Cloud Schedule System**
- **Auto-driving Operation And Maintenance Service**

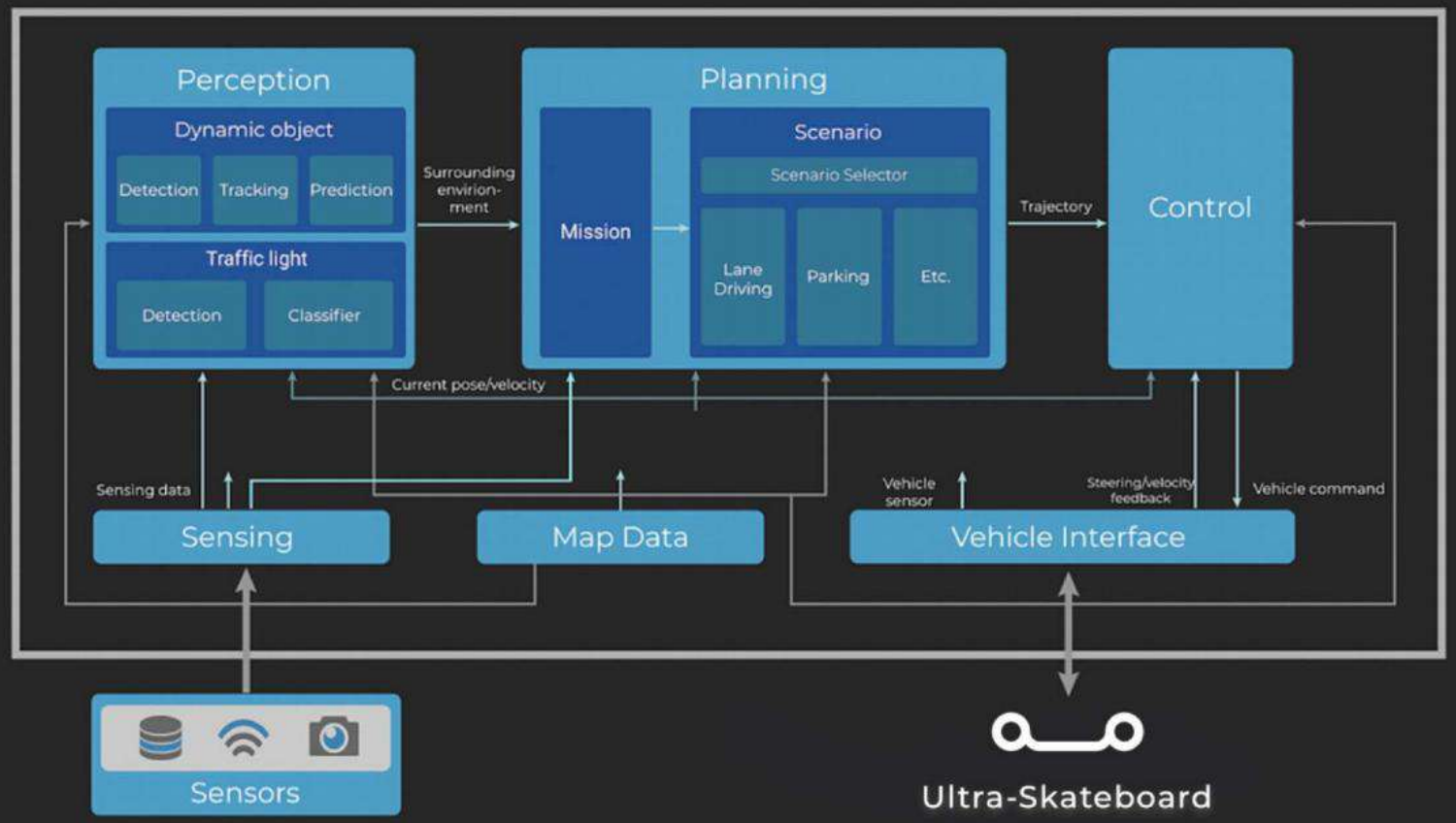
PIX Moving Space



PIX Rover - Autonomous Driving Software Architecture

A Reliable And Comprehensive Integration Of Autonomous Driving System

PIX offers full regional L4 autonomous driving integration services. The core module, the autonomous driving system, integrates the software and hardware platform of the vehicle's autonomous driving and can communicate and transmit data in real time with other modules. It is responsible for commanding the vehicle's real-time actions, handling real-time response requirements, and employing the reliability redundancy design, with manual takeover, remote takeover, and a one-key braking mechanism reserved to ensure operational security.



High Precision Positioning

Path Planning

Redundant Perception

Auto-Obstacle Avoidance

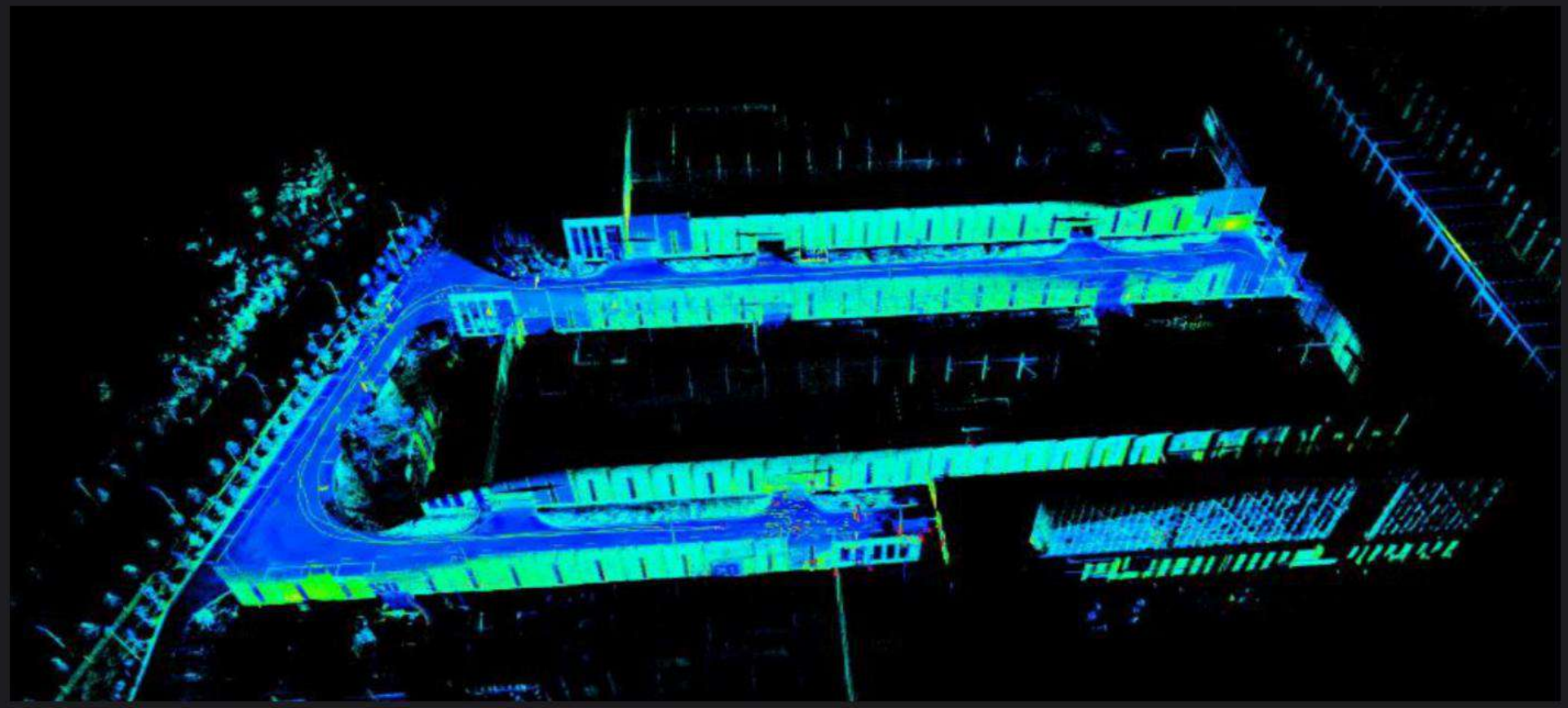
Pre-Warning

Emergency Brake

Strong Sensing - Full-stack Sensors Deployment

Comprehensive Environmental Sensing With 360° Coverage

The PIX Robobus is equipped with four lidars, a 12-probe ultrasonic radar, a millimeter-wave radar, and multiple intelligent perception cameras. It offers an overlapped field of view and complete 360° coverage. The integration with high-precision maps enables centimeter-level positioning in complex environments and redundant perception of road information, ensuring passengers receive reliable, comfortable, and safe commute services.



Environment Perception Sensor (Function Introduction)

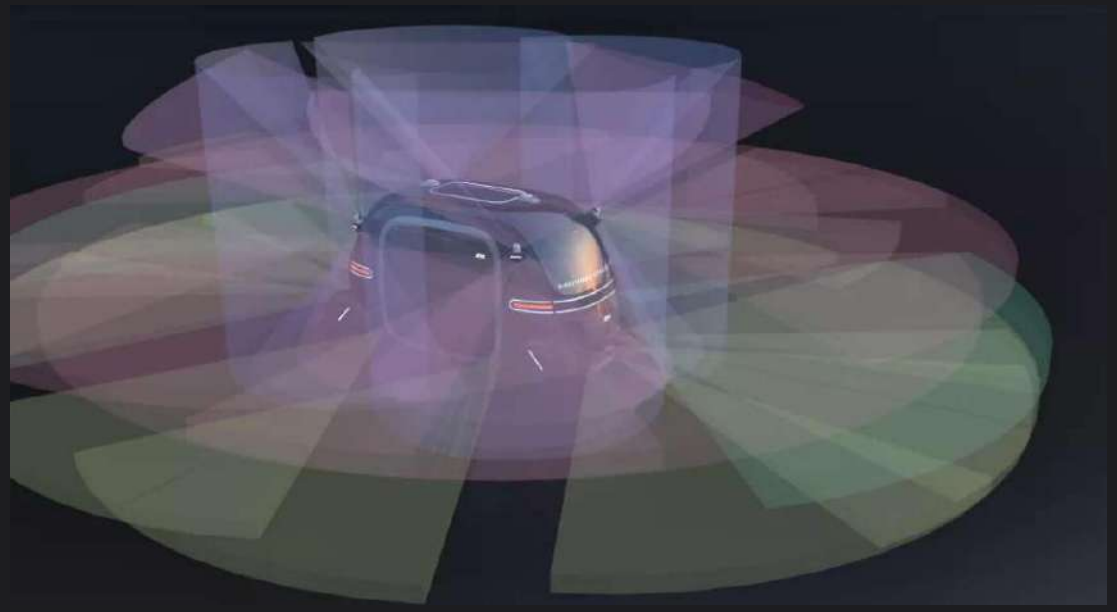
The sensors resemble human eyes and ears, comprehending the surrounding environment through algorithmic processing of computing units derived from data fusion of cameras, lidars, millimeter-wave radars, and ultrasonic radars.

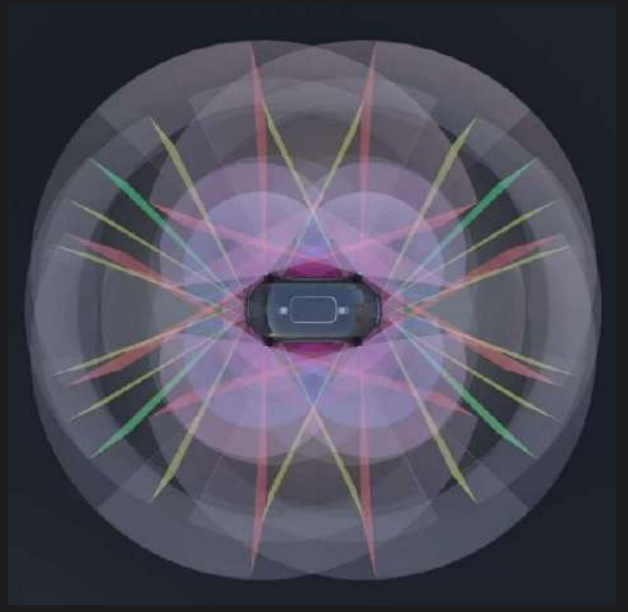
Cameras: Used for detecting and recognizing lane lines, traffic lights, vehicles, pedestrians, road markings, and traffic signs.

Lidars: Employed for perceiving obstacles such as vehicles and pedestrians, as well as mapping and high-precision position fixing.

Millimeter-Wave Radar: Primarily used for detecting traffic vehicles, with the advantages of long detection distance and high data update rate.

Ultrasonic Radar: Mainly used for short-distance obstacle detection around the vehicle and for close-range impairment compensation for other sensors, particularly in parking scenarios.





High-precision Map & Multi-positioning

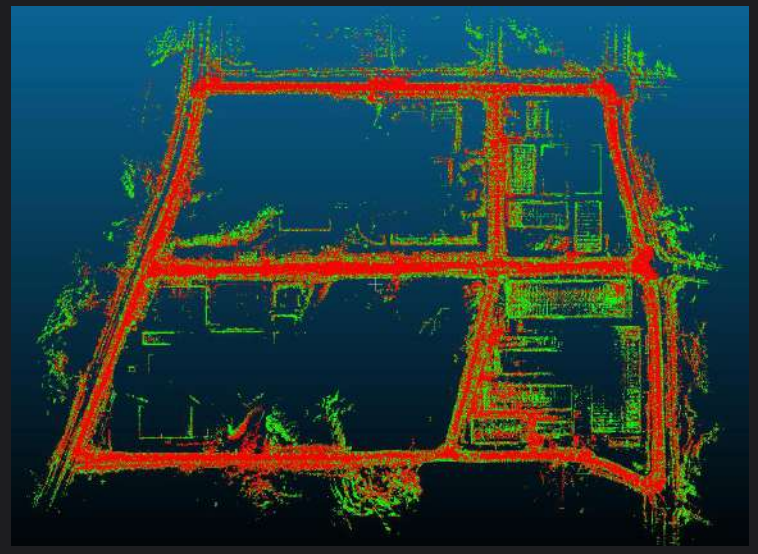
High-Precision Map

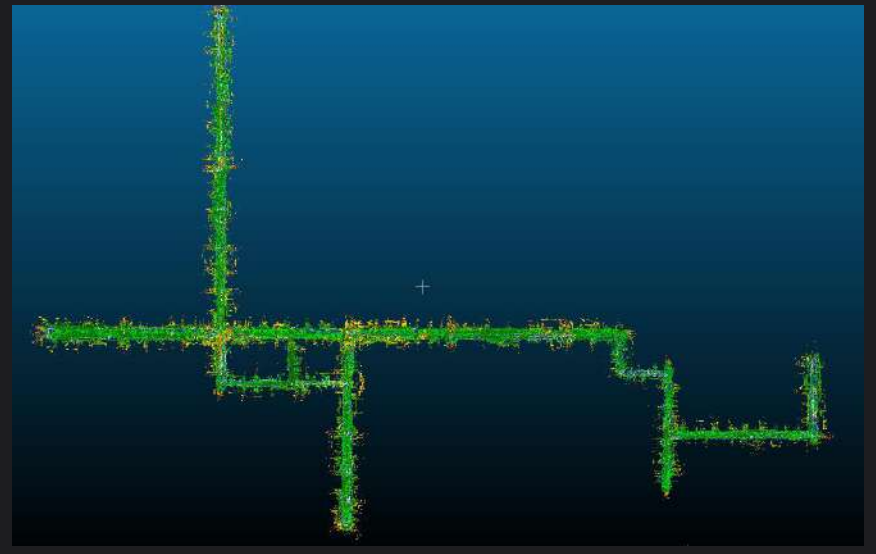
High-precision maps, in contrast to traditional maps, are real-space navigation maps with centimeter-level precision that contain a large amount of driving assistance data, such as accurate 3D descriptions of road networks.

Multi-Positioning

Closed area Surrounding open roads Open roads

We have advanced high-precision mapping capabilities and self-positioning functions designed specifically for open-air operations. High-precision maps supplement perception by delineating drivable areas with map fences and providing auxiliary control for slope, curvature, and cross-slope. Furthermore, they facilitate over-the-horizon planning and auxiliary traffic sign recognition, greatly improving the safety and security of autonomous driving.





Decision Planning and Vehicle Control

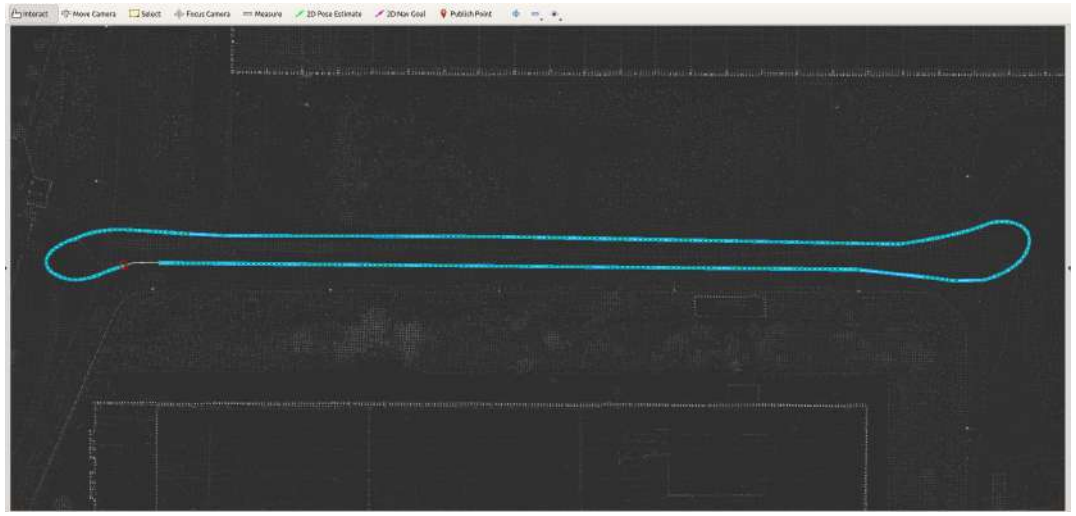
The excellent decision planning and control algorithm of PIX-Robobus guarantees reliability, comfort, and high efficiency in vehicle operation.

Vehicle Control

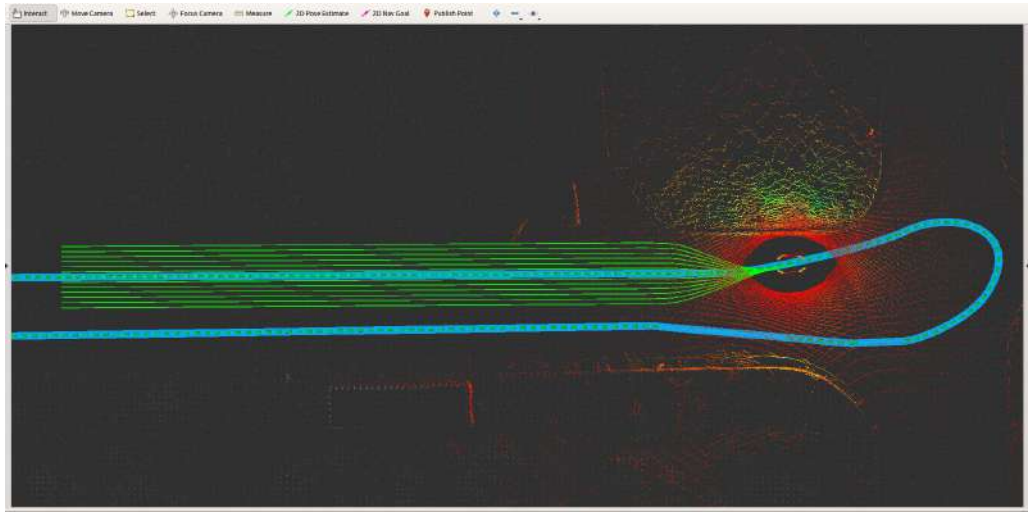
It consists of both longitudinal and lateral control.
Robobus improves the ride experience with longitudinal control by optimizing the vehicle's acceleration and deceleration process based on its dynamic model.
In terms of lateral control, we use the model predictive control method to improve vehicle trajectory tracking accuracy. Furthermore, when the vehicle enters a curve, we use co-control in both the longitudinal and lateral directions to improve comfort and safety.

Decision Planning

This module performs behavior decision-making and trajectory generation by utilizing the predetermined global itineraty, site coordinates, and perception information received. This includes predicting motion trajectories based on perceived environment information and planning driving trajectories for controlled vehicles.



Global path planning: Based on the pre-established map, the autonomous driving system is capable of strategically mapping out the most optimal route from the initial to the final destination.



Local path planning: The self-driving vehicle navigates its path strategically by utilizing environmental information perceived by its own sensors, ensuring a safe and seamless ride.

Multi-level Safety Redundancy

Multiple Anti-risk Capabilities to Ensure Safety during Operation

Safety redundancy is crucial for maintaining operation, mainly including multiple reliability redundancy designs such as the auto-driving system, network service, monitoring system, industrial computer, sensor, wiring harness, mechanical structural function, VCU, CAN network, battery pack, etc.

Reliability redundancy design module for auto-driving system

- Positioning module
- GNSS+RTK+IMU+Lidar
- Sensing modular lidar
- Camera(environment detecting & monitoring)
- Ultrasonic radar
- Mm-wave radar
- Planning module
- Global path planning
- Local path planning
- Prediction
- Behavior Prediction
- Forward Collision Warning System(FCW)
- Lane Departure Warning(LDW)
- Vulnerable Road Users(VRU)
- Headway Monitoring Warning(HMW)
- Speed Limited Indication(SLI)

Chassis Platform System

- Vehicle-Level Double Braking System(EHB+EPB)
- VCU Chassis Fault Classification Warning
- High-Strength Steel Frame
- Virtual Steering Wheel Angular Velocity Control (with rotation accuracy 1°)
- Four 1024-wire High-precision Permanent Magnet Synchronous Motors
- Layered CAN Communication Architecture, More Reliable Data Transmission

Cloud Dispatching System

- Real-time Video Surveillance
- Emergency Takeover
- Emergency Communication

Cloud Schedule System

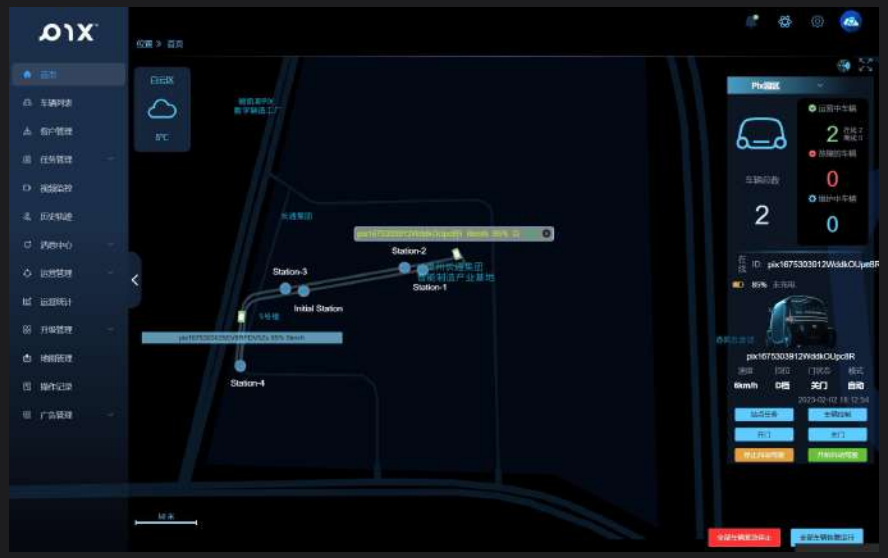
Developed by PIX Moving for Easier Operational Management

The dedicated auto-driving operation and management platform has been developed specifically for auto-driving fleets, ensuring stable and efficient operations.
It integrates essential functions such as fleet management, real-time data processing, video surveillance, emergency response, prompt notifications, remote driving, OTA updates, user and map management, and operation logs.
With this platform, operators can easily monitor the planned paths, vehicle positions, and real-time data of each vehicle. It offers effective online remote surveillance and management for both fleets and individual vehicles.

Cloud Schedule System

Data Monitoring & Human Surveillance

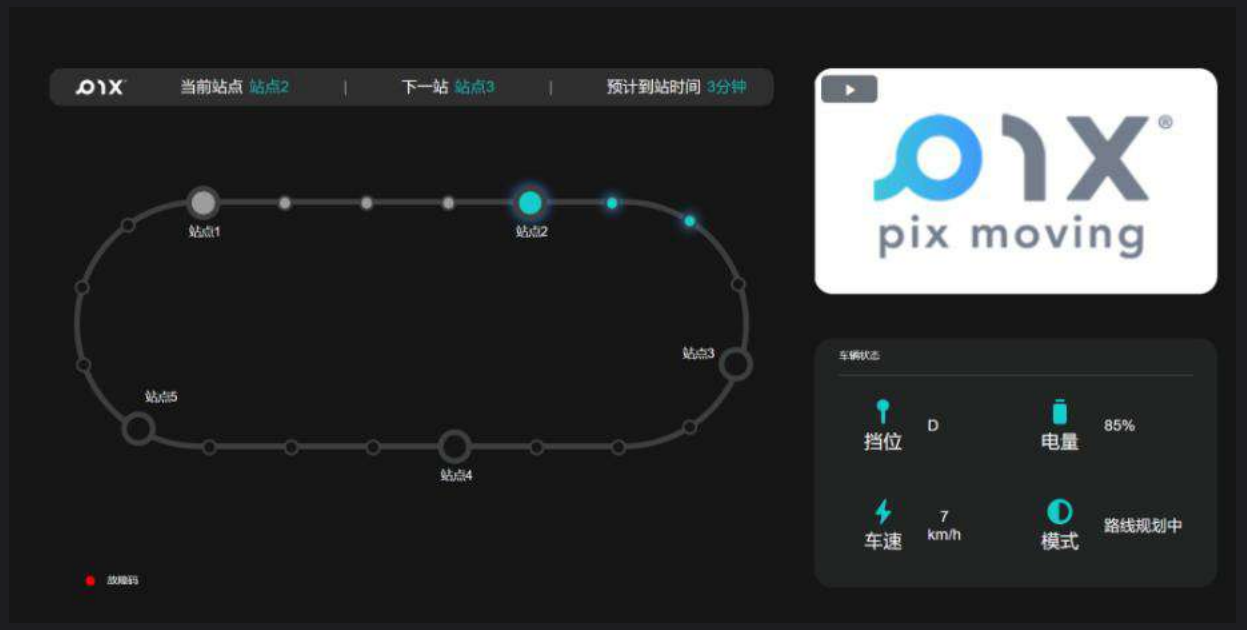
The data monitoring module is in charge of transmitting, recording, and storing video streams and chassis platform data generated by vehicle cameras and a CAN-bus recorder in real-time. It also has a one-key alarm device for instant alerts. These critical data can be analyzed further and used to provide valuable insights for improving customer operations. The customer retains complete control over all information, ensuring the highest level of security and confidentiality for their data.



Robobus can also be equipped with certified safety operators. In cases of policy defects, system failures, rule violations, or instances of human-caused operational failures, these safety operators will manually intervene to address abnormal and extreme situations, thereby providing an additional safety guarantee.

Human-system Interaction

The user interaction module's goal is to reduce system operational loads while improving user experience. The interactive module consists of a small touch screen for in-car media and entertainment interaction, as well as a large central screen for vehicle status display.



Small touch screen: For in-car media and entertainment interaction, including interactive controls such as operating conditions, path decisions, door control, air conditioner, music display, and ambient lighting.

Large central screen: Displays the vehicle's real-time status data, site information, and advertisement broadcast.

Auto-driving Operation and Maintenance Services (O&M)

PIX offers localized auto-driving O&M services to guarantee the safety, stability, and operational excellence of auto-driving vehicles. Our comprehensive services encompass:

· Local high-precision maps and vector mapping

· Technical assistance for auto-driving function adjustment and operational guidance

· Vehicle operation and maintenance tutorials

· Advanced optimization solutions derived from in-depth analysis of operational data and environmental factors.

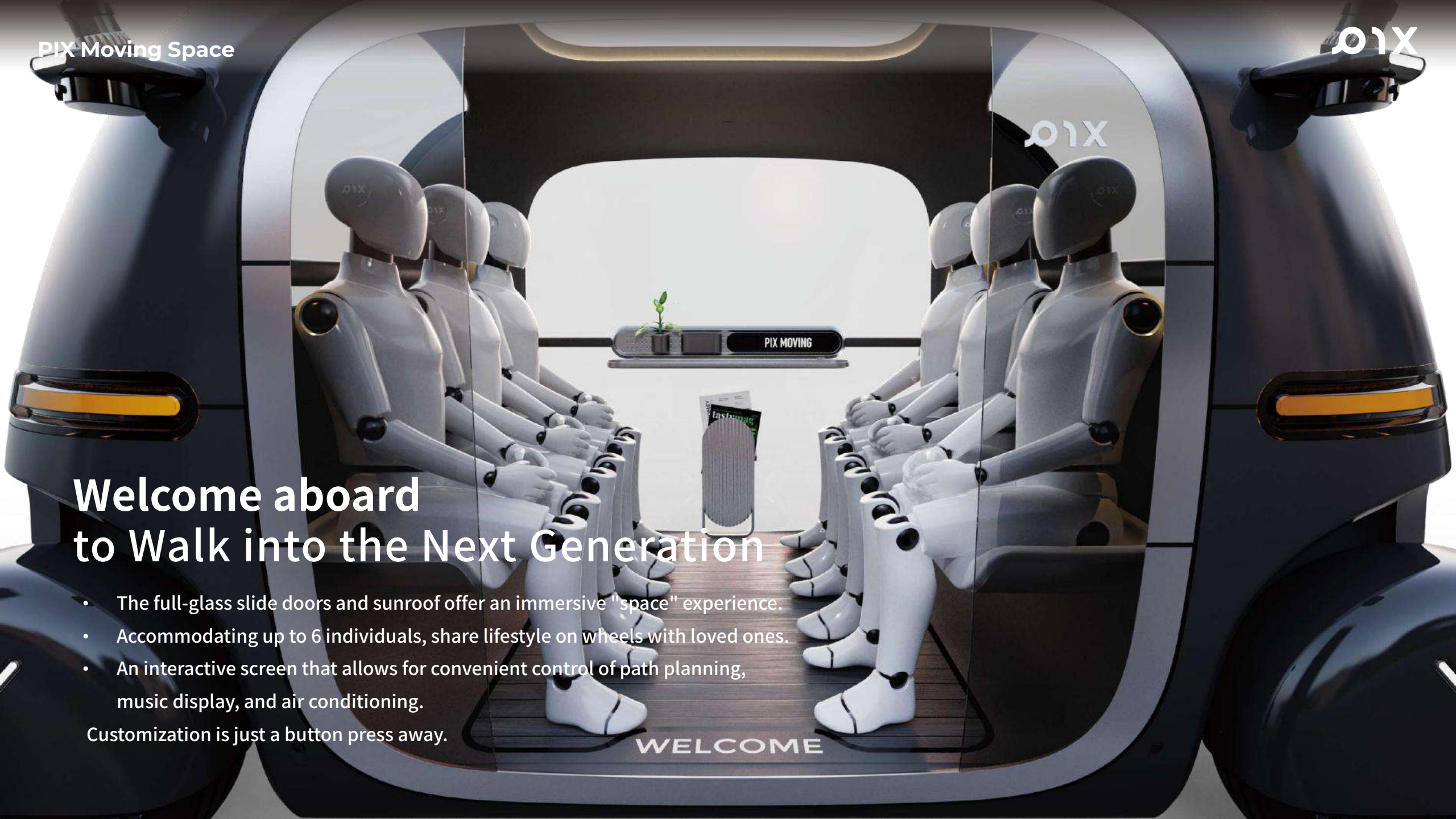
Maintenance Service

24/7 Response

System Maintenance & Upgrade

Remote Technical Support

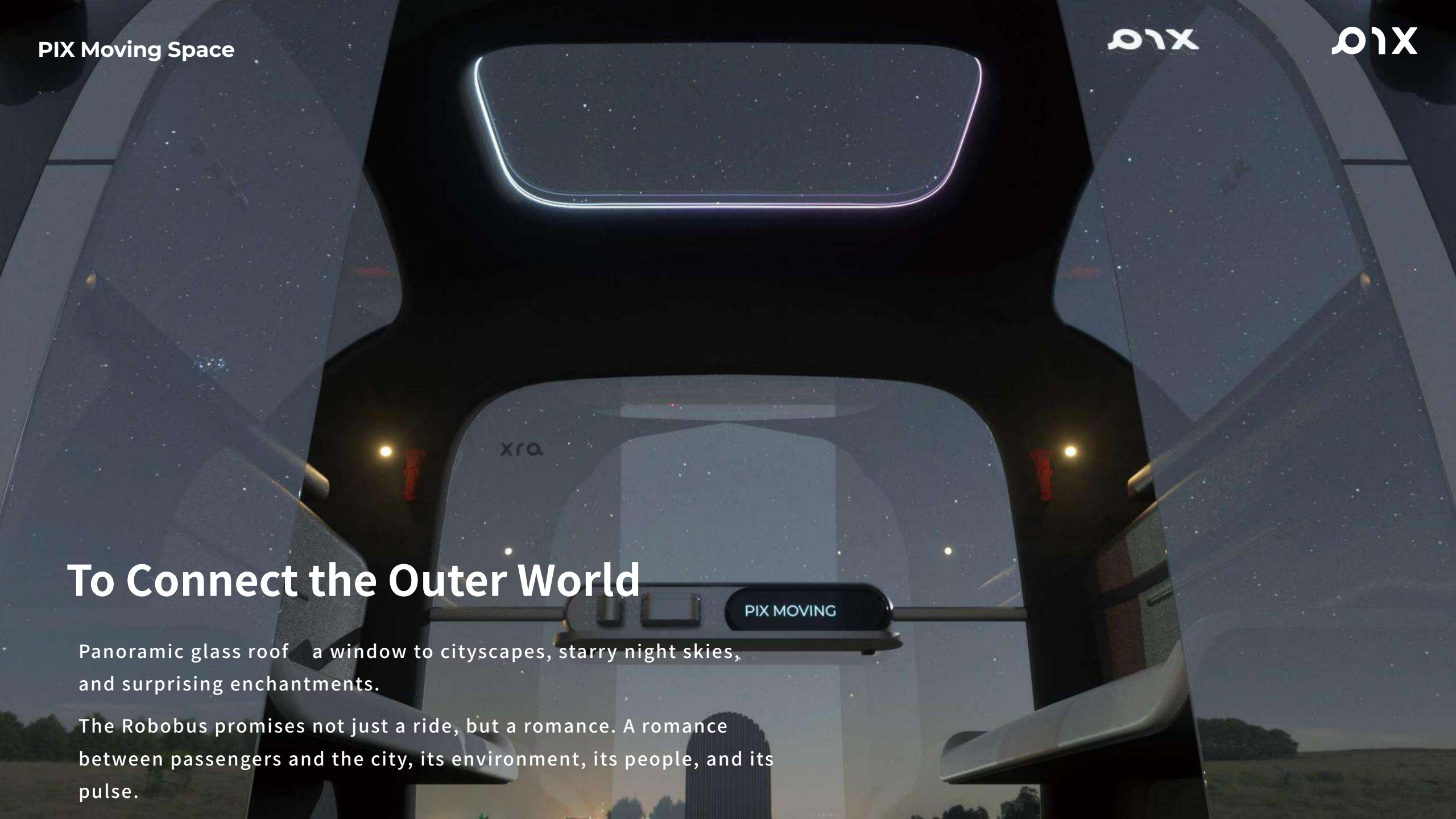
On-site Service (48 hours when remote support is not feasible



Welcome aboard
to Walk into the Next Generation

- The full-glass slide doors and sunroof offer an immersive "space" experience.
- Accommodating up to 6 individuals, share lifestyle on wheels with loved ones.
- An interactive screen that allows for convenient control of path planning, music display, and air conditioning.

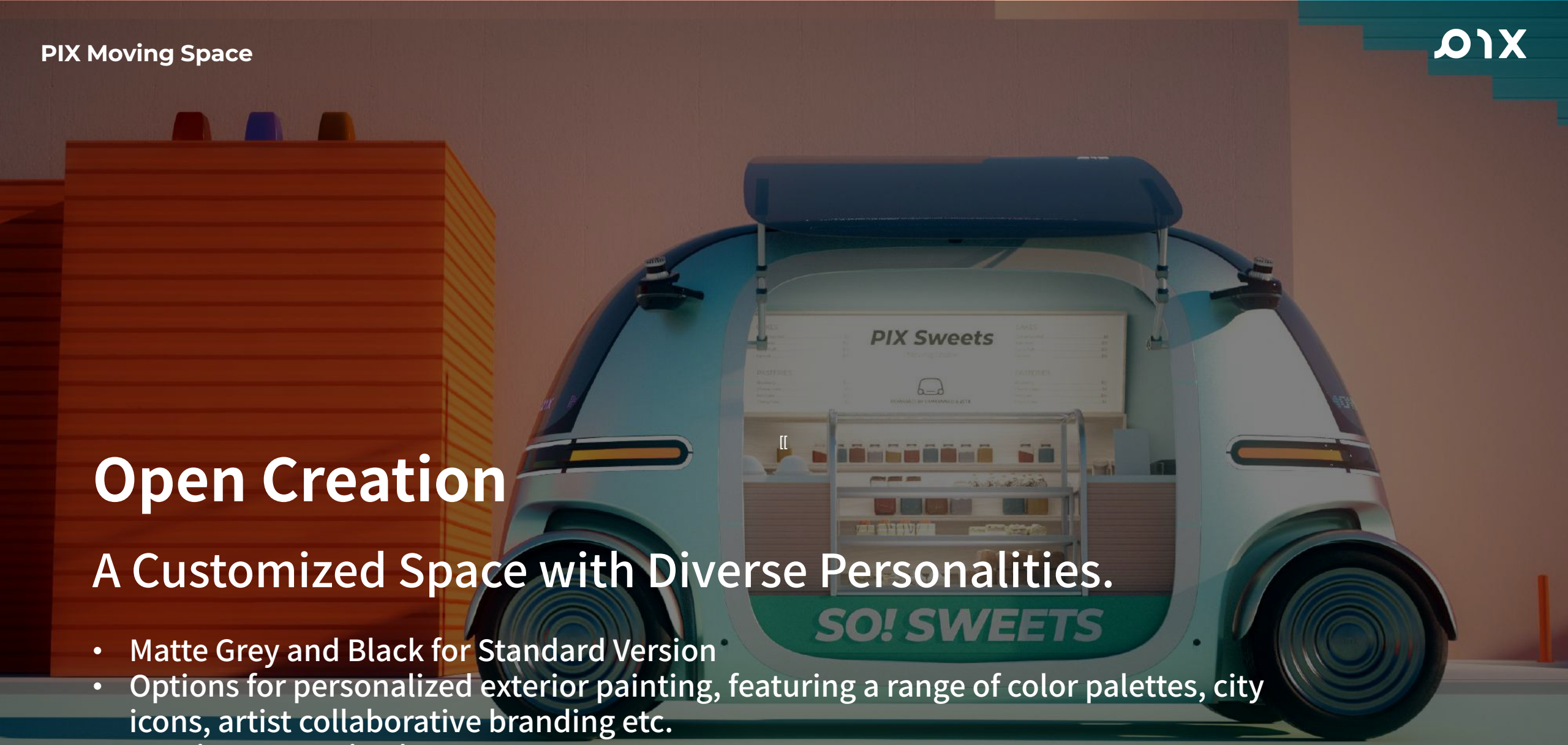
Customization is just a button press away.



To Connect the Outer World

Panoramic glass roof a window to cityscapes, starry night skies, and surprising enchantments.

The Robobus promises not just a ride, but a romance. A romance between passengers and the city, its environment, its people, and its pulse.

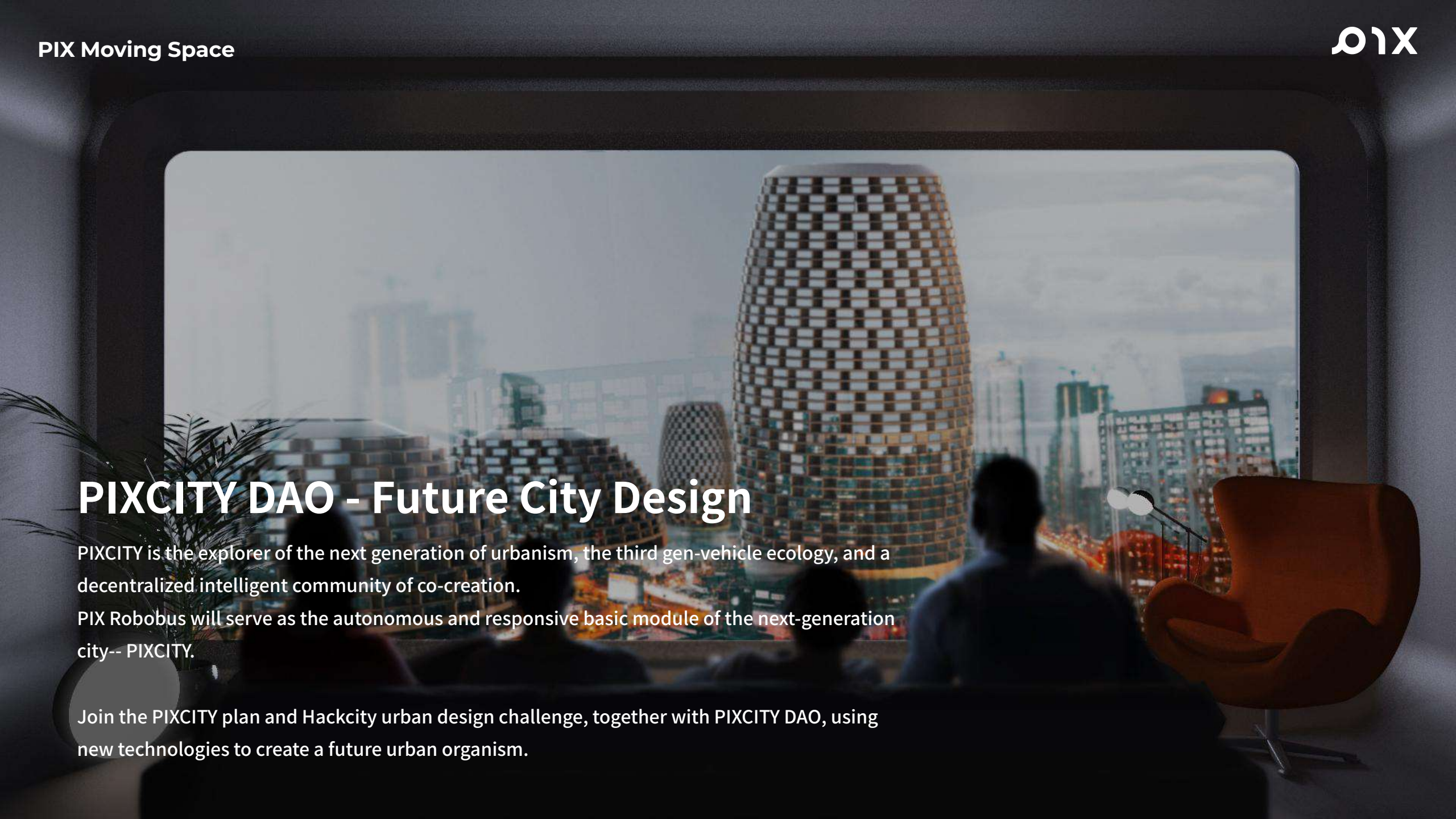


Open Creation

A Customized Space with Diverse Personalities.

- Matte Grey and Black for Standard Version
- Options for personalized exterior painting, featuring a range of color palettes, city icons, artist collaborative branding etc.
- Interior Customization

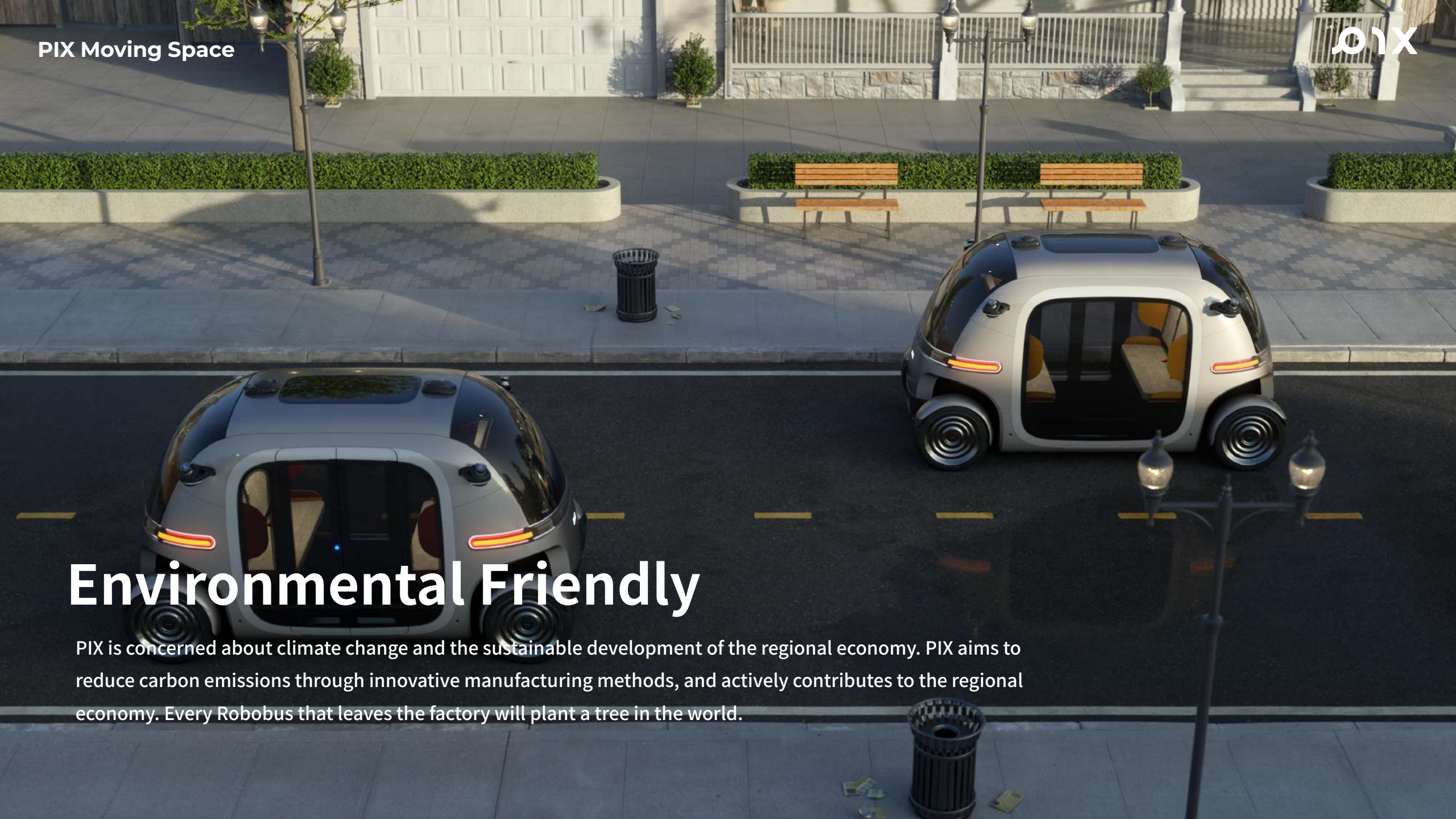
Private or Open Cold or Warm Minimalism or Vibrantly Colorful



PIXCITY DAO - Future City Design

PIXCITY is the explorer of the next generation of urbanism, the third gen-vehicle ecology, and a decentralized intelligent community of co-creation.
PIX Robobus will serve as the autonomous and responsive basic module of the next-generation city-- PIXCITY.

Join the PIXCITY plan and Hackcity urban design challenge, together with PIXCITY DAO, using new technologies to create a future urban organism.



Environmental Friendly

PIX is concerned about climate change and the sustainable development of the regional economy. PIX aims to reduce carbon emissions through innovative manufacturing methods, and actively contributes to the regional economy. Every Robobus that leaves the factory will plant a tree in the world.

Welcome to the Age of Discovery in autonomous driving

Ushering in the greatest urban revolution over the past century

Wechat

Product Consultation & Bussiness Cooperation in China

kris@pixmoving.com

Product Consultation & Bussiness Cooperation International

nancy@pixmoving.com

www.pixmoving.com

twitter.com/thepixmoving

linkedin.com/company/pixmoving

youtube.com/pixmoving

facebook.com/pixmoving

instagram.com/pixmoving