Making Parking More Intelligent

CoPARK

PIONEER IN AUTOMATED PARKING SOLUTIONS

A NEW ERA OF SMART PARKING

COWAIN

Cowain Group

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COWAIN GROUP

As an end-to-end technology solution provider, Cowain accelerates customer growth by delivering total solutions, from design to hardware and software system integration, along with sustainable after-sales support.

3500+
Global Employees

201,228 m^2
Factory Area

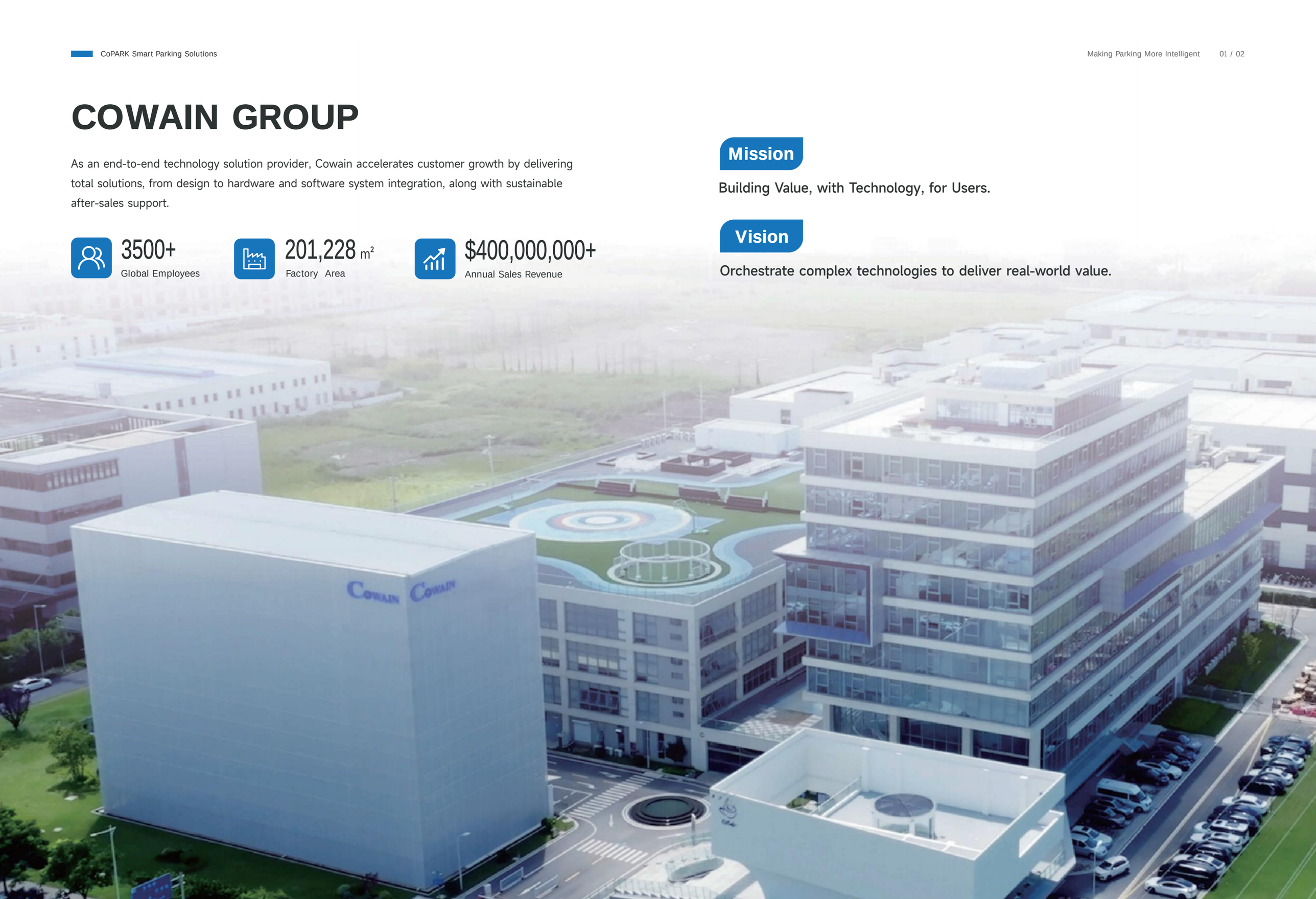
$400,000,000+
Annual Sales Revenue

Mission

Building Value, with Technology, for Users.

Vision

Orchestrate complex technologies to deliver real-world value.



GLOBALISATION

- China Headquarters
- US Subsidiary
- Germany Subsidiary
- Vietnam Subsidiary
- Mexico Subsidiary
- Singapore Subsidiary

Vietnam Factory
Manufacturing & Training
15,020 m²

Weifang Factory
R&D & Manufacturing
4,800 m²

South China Factory
R&D & Manufacturing
5750 m²

Suzhou Factory
R&D & Manufacturing
4,500 m²

Dalian Factory
R&D & Manufacturing
7,200 m²

Kunshan Headquarters
R&D & Manufacturing
41500 m²

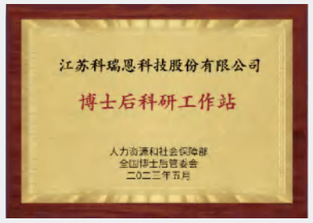
Nantong Manufacturing Base
R&D & Manufacturing
113,000 m²

Ningbo Factory
R&D & Manufacturing
6,700 m²

Kunshan Research Institute
R&D
1,500 m²

Wuxi Research Institute
R&D
1258m²

HONORS, PATENTS & CERTIFICATIONS



Postdoctoral Research Workstation

Unicorn company

Top 10 Tax-Paying Enterprises

ISO 14001

ISO 9001

ISO 45001

Intelligent Parking Software Copyright

Patent Portfolio

830+ Authorized Patent

490+ Valid Patent

75+ Invention Patents

398+ Utility Model Patents

18+ Industrial Design Patents

127+ Software Copyrights

CoPARK INTELLIGENT DELIVERY & FULL-PROCESS ASSURANCE

An intelligent parking system requires systematic engineering and efficient project execution. Leveraging a full-process standardized management system, a professional engineering team, and intelligent project management technologies, CoPARK ensures strict control over quality, schedule, and delivery efficiency throughout the project lifecycle.

Foundation of Technology R&D

1000 + R&D Professionals
Mechanical/Electrical/Software

2 R&D Center
Kunshan/Wuxi

> 10% ↑
Annual average R&D investment

Over 500 machines

Precision Machining Center

Sheet Metal Manufacturing Center

Robot Welding

Assembly Center

AUTOMATED PARKING SYSTEMS

Shuttle (PPY)

Parameter	
Equipment Type	Shuttle
Maximum Layers	⩽12
Capacity	According to design requirements
Vehicle Dimensions (mm)	Length* Width * Height ⩽5300*1950*1550/2050mm
Maximum Vehicle Weight (kg)	⩽3000
Access Method	Robot/Pallet /Comb Carrying Type
Lift Motor Power	15kW-22kW
Lifting Speed	45-60m/min
Transfer Motor Power	3kW
Transfer Speed	79-90m/min
Shuttle Car Motor Power	2*1kW
Shuttle Car Speed	40-60m/min
Turntable Motor Power	2.2kW
Turntable Speed	3-5rpm

Tower Shuttle （PCS）

Parameter	
Equipment Type	Tower Shuttle
Maximum Layers	⩽16
Capacity	According to design requirements
Vehicle Dimensions (mm)	Length* Width * Height ⩽5300*1950*1550/2050mm
Maximum Vehicle Weight (kg)	⩽3000
Access Method	Robot/Pallet /Comb Carrying Type
Lift Motor Power	37kW
Lifting Speed	90m/min
Transfer Motor Power	3kW
Transfer Speed	40-50m/min
Shuttle Car Motor Power	2*1kW
Shuttle Car Speed	40-60m/min
Turntable Motor Power	2.2kW
Turntable Speed	3-5rpm

Tower (PCS)

Parameter	
Equipment Type	Tower
Maximum Layers	⩽30
Vehicle Dimensions (mm)	Length* Width * Height ⩽5300*1950*1550/2050mm
Maximum Vehicle Weight (kg)	⩽3000
Access Method	Robot/Pallet /Comb Carrying Type
Lift Motor Power	22kW-30kW
Lift Speed	90-120m/min
Transfer Motor Power	0.2*2kW
Transfer Speed	25m/min
Turntable Motor Power	2.2kW
Turntable Speed	3-5rpm

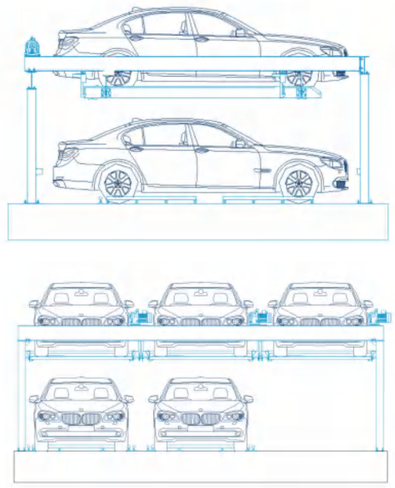
Rotary (PCX)

Parameter		
Type	Rotary （12SUV）	Rotary （16SUV）
Vehicle Dimensions (mm)	Length* Width * Height ⩽5300*1950*1550/2500mm	
Maximum Vehicle Weight (kg)	⩽3000	
Motor Power(kW)	15(12SUV)	22(16SUV)
Control Method	Frequency Converter (VFD)	
Speed	4.5m/min(12SUV)	6m/min(16SUV)
Operation Method	Touch Screen / ID Card	
Power	380V,3PH,50Hz	
Safety Features	Vehicle Dimension Detection Obstacle & Personnel Detection Motor Overload Protection Vehicle Anti-Sway System	

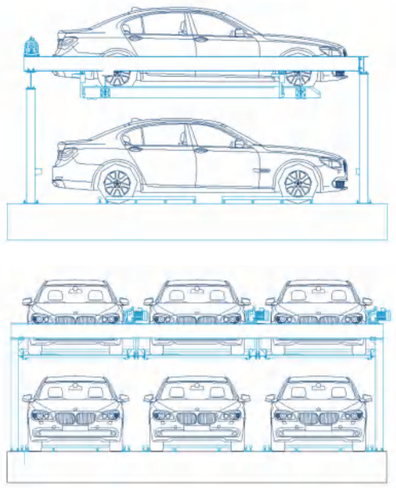
Automated Puzzle (PSH)

Parameter	
Equipment Type	Automated Puzzle
Maximum Layers	⩽6
Vehicle Dimensions (mm)	Length* Width * Height ⩽5300*1950*1550/2050mm
Maximum Vehicle Weight (kg)	⩽3000
Entry / Exit Method	Forward Entry, Reverse Exit
Operate Mode	Touch Screen/ID Card
Lift Motor Power	2.2-3.7kW
Lifting Speed	4-6m/min
Transfer Motor Power	0.2kW
Transfer Speed	8-10m/min

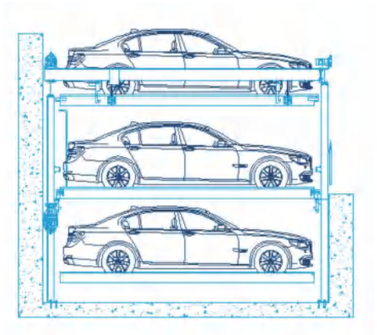
PUZZLE AND STACKER



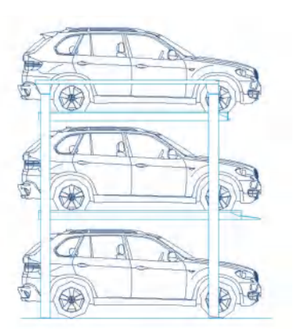
Regular Puzzle



Double Stacker



Puzzle with Pit

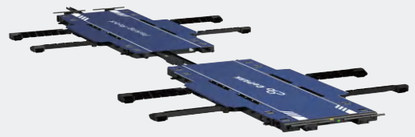


Stacker

CORE COMPONENTS

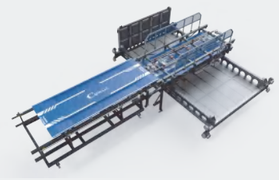
CoPARK builds on the expertise of the precision automation industry and integrates a 20-year automated parking system design team. Core components—including material handling robots, vehicle transfer systems, elevator systems, and entry/exit systems—are independently developed in-house.Through standardized design and manufacturing, CoPARK enables mass production, consistent quality control, enhanced system stability, and optimized cost efficiency.

Comb Exchange Transfer Mechanism



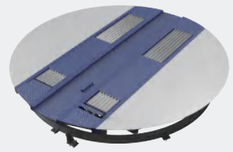
Automated Robotic Transport Unit

Telescopic Comb Transfer Mechanism



Pallet Exchange Mechanism

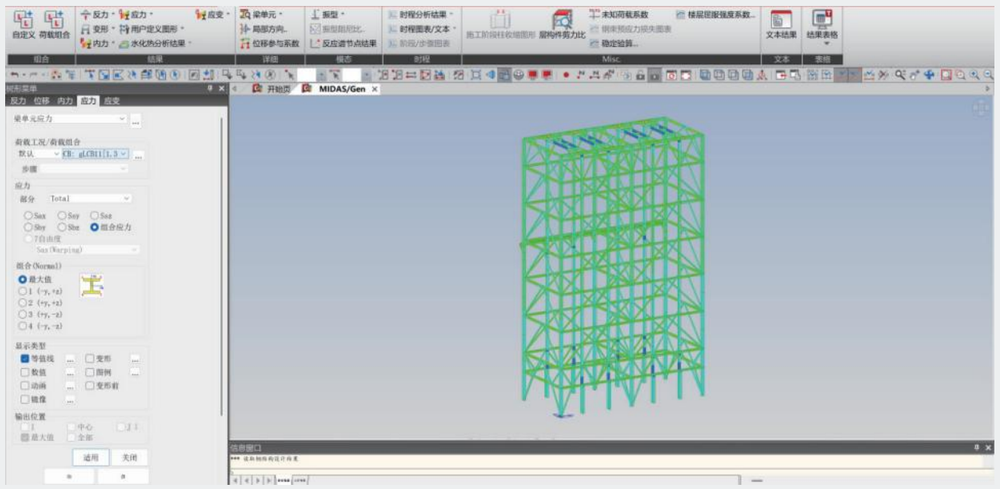
Vehicle Transfer Car System (with Turntable)



Vehicle Entry & Exit System (with Turntable)

Structural Calculation & Optimization

Optimized steel structure design plays a critical role in controlling the overall cost of automated parking systems. CoPARK leverages advanced structural calculation and simulation tools to achieve mechanically sound, material-efficient design. By optimizing steel usage while maintaining structural safety and performance, CoPARK delivers solutions with outstanding cost efficiency and competitive advantages.



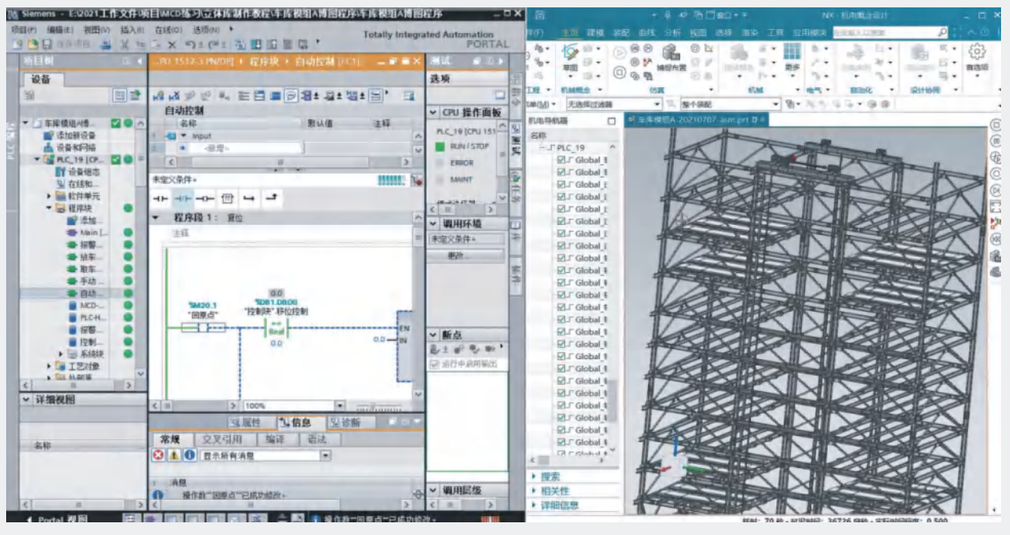
Siemens Simulation–Enabled Engineering

Through a strategic partnership with Siemens, CoPARK applies advanced digital simulation and virtual commissioning technologies to the development and debugging of electrical control programs for automated parking systems.

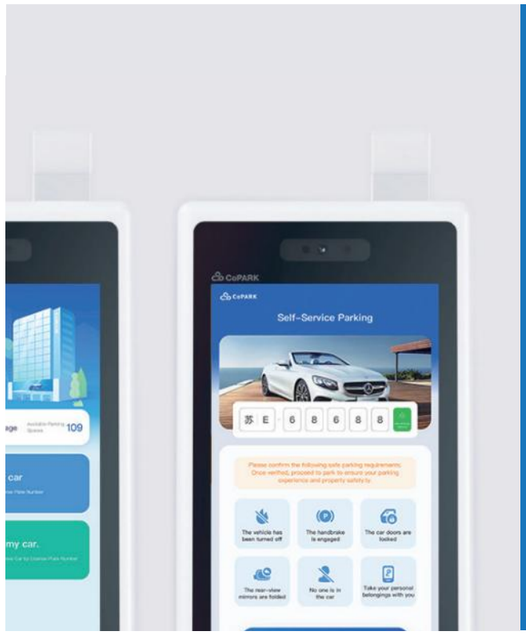
Potential design and logic issues in mechanical and electrical systems are identified and resolved during the engineering phase, significantly reducing on-site commissioning time. Core control programs are fully developed and verified by senior electrical control engineers prior to site delivery, enabling efficient parameter configuration and rapid system commissioning on site.

Standardized Electronic Control Design

CoPARK moves beyond traditional automated parking design approaches by establishing a standardized electronic control component library and a modular control architecture.Through modular action logic, standardized communication interfaces, and unified alarm and status definitions, CoPARK significantly reduces engineering workload, improves system consistency, and enhances overall reliability and maintainability.



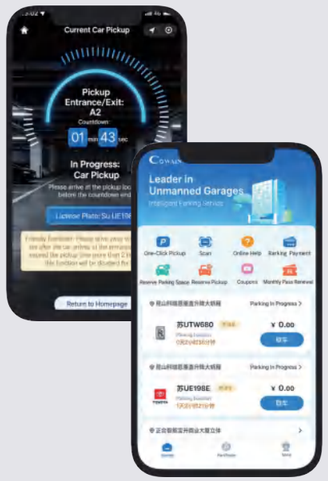
DIGITAL & INTELLIGENT USER EXPERIENCE



HMI Touchscreen Interface

Multiple Vehicle Access Methods
Fast & Convenient Vehicle Retrieval
Online Assistance & User Guidance

- QR Code
- License Plate Recognition
- Recognition
- Phone Number
- Contact Administrator
- Administrator Operation
- Interface Maintenance



Mobile APP Experience

Multiple access vehicle methods
Remote Vehicle Retrieval
Parking Reservation
Need customization according to local regulations

- Parking Fee Payment
- Contactless / Seamless Payment
- Monthly Pass / Long-Term Parking Subscription
- Parking Coupon
- Electronic Invoice (E-Invoice)
- One-Touch Vehicle Retrieval
- Scheduled Vehicle Retrieval
- Parking Space Reservation
- Energy Vehicle (EV) Charging

Intelligent Parking Management System

Intelligent Garage Cloud Platform

Intelligent Parking Solutions Platform

Real-Time Information Display Screen

Type	Tower Shuttle
Entrances	**5**
Parking Spaces	**350**
Layers	12 layers
Floor Area	800 square meters
Average Access Time	90s
Daily Throughput	500 vehicles

Project Features

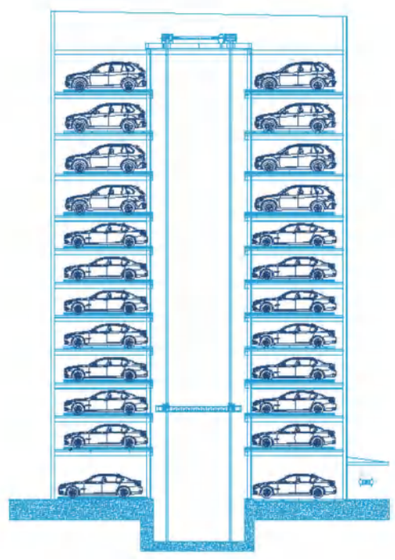
- High Space Utilization Efficiency
- 24/7 Unmanned Operation
- 99.99% Docking Reliability
- Office/Headquarters

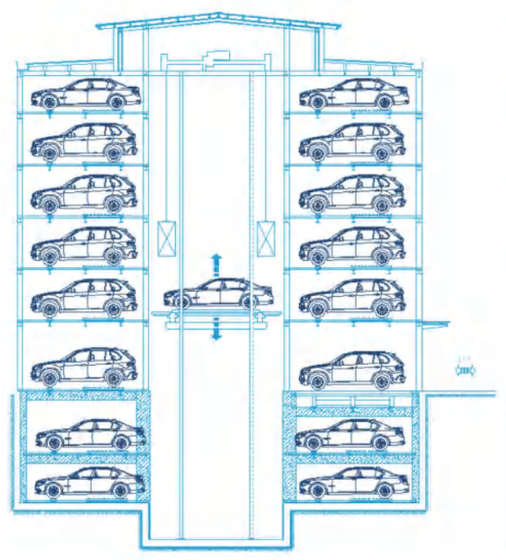
Type	Tower Shuttle
Entrances	**14**
Parking Spaces	**420**
Layers	8 layers
Floor Area	1645 square meters
Average Access Time	90s
Daily Throughput	600 vehicles

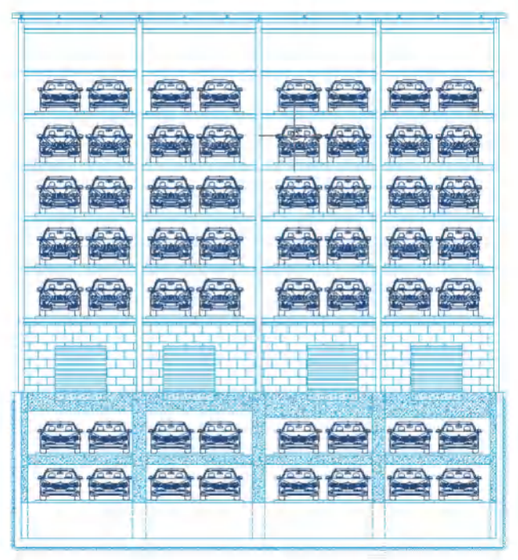
Project Features

- Straight-In / Straight-Out
- 8 Stories (6 above, 2 below)
- 14 Vehicle Parallel Access
- Public parking

PROJECT CASE



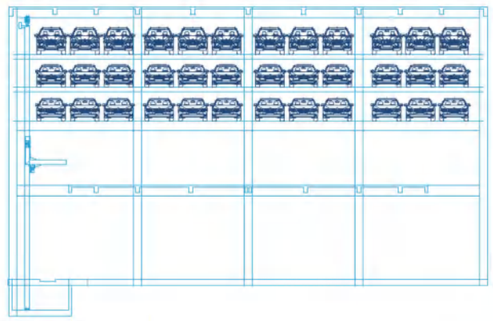


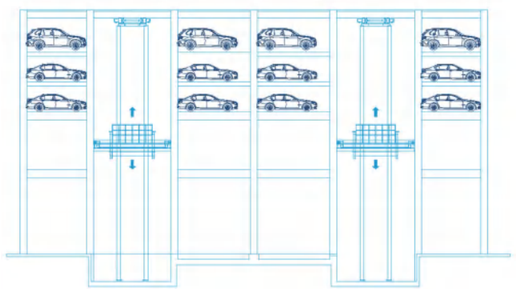


Type	Shuttle
Entrances	**2**
Parking Spaces	**153**
Layers	3 layers
Floor Area	1100 square meters
Average Access Time	90s
Daily Throughput	300 vehicles

Project Features

- Fully Unmanned Operation
- Incorporated into Building
- Integrated with Community Service Center
- Community



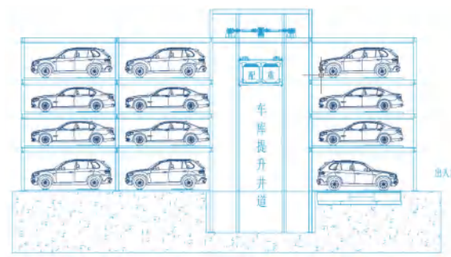


Type	Shuttle
Entrances	**4**
Parking Spaces	**102**
Layers	4 layers
Floor Area	630 square meters
Average Access Time	90s
Daily Throughput	200 vehicles

Project Features

- Wide Vehicle Compatibility
- Alternative Entry & Exit
- Manufacturing Base

PROJECT CASE



Type	Multilayer Puzzle
Entrances	**/**
Parking Spaces	**108**
Layers	3/4 layers
Floor Area	560 square meters
Average Access Time	120s

Project Features

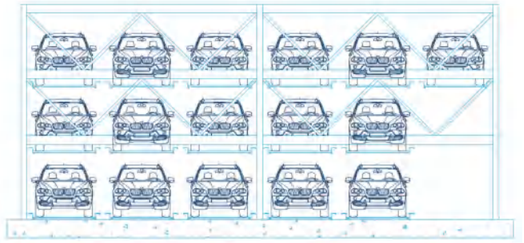
- Mature and Proven Parking Solution
- Flexible Layout Adaptation
- Factory

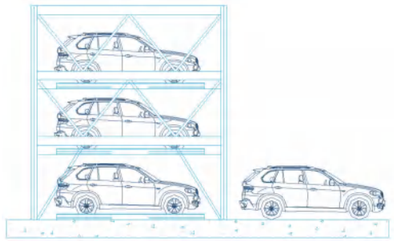
Type	Multilayer Puzzle
Entrances	**1**
Parking Spaces	**12**
Layers	6 layers
Floor Area	60 square meters
Average Access Time	120s

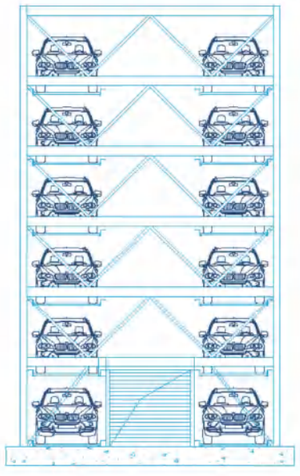
Project Features

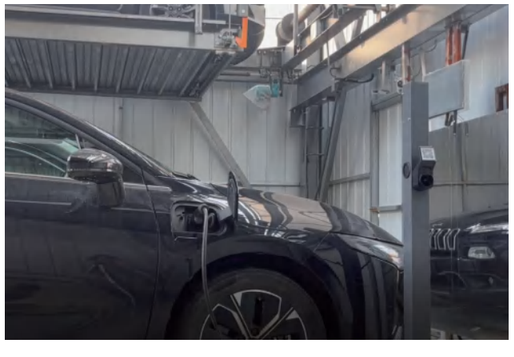
- 5× Space Utilization
- Fully Automatic & Unmanned
- Cost Effective as Puzzle
- Integrated Parking & Charging
- Factory

PROJECT CASE









Type	Rotary
Entrances	**3**
Parking Spaces	**60**
Layers	11 layers
Floor Area	126 square meters
Average Access Time	90s

Project Features

- Convenient Vehicle Access
- High Cost-Effectiveness
- Wide Vehicle Compatibility
- Compact Footprint
- Alley

Type	Shuttle
Entrances	**4**
Parking Spaces	**180**
Layers	10 layers
Floor Area	430 square meters
Average Access Time	90s
Daily Throughput	600 vehicles

Project Features

- Incorporated into Building Solution
- Low Noise, High Efficiency Operation
- High Level of Intelligence
- Adaptable to Various Parking Scenarios
- Commercial Strip

PROJECT CASE