

PARKETT TOUCHLESS GUIDANCE SYSTEM



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1. ABSTRACT

The PARK-KIT Touchless Guidance System represents a groundbreaking advancement in parking management for parkade owners. By ensuring seamless traffic flow, enhancing customer satisfaction, and leveraging cutting-edge technology, PARK-KIT addresses the pressing challenges of traditional parking systems. This white paper highlights the unparalleled features and benefits of the PARK-KIT system, showcasing how it can optimize parking management and elevate the overall experience for both operators and customers.

2. THE PROBLEM STATEMENT

The PARK-KIT Guidance System improves parking lot operations by optimizing space use and increasing revenue for owners. It helps drivers find Parking in underground parkades often poses significant challenges for drivers, including limited visibility, tight spaces, and confusing layouts that can lead to frustration and wasted time. The difficulty in locating available parking spots can exacerbate stress, particularly in busy urban areas where time is of the essence. Additionally, the lack of real-time information about parking availability can result in drivers circling the facility, contributing to congestion and increased emissions. This highlights the critical need for parking guidance systems, which can streamline the parking process by providing real-time data on available spaces, directing drivers efficiently to open spots, and enhancing overall safety and convenience.

By implementing such systems, underground parkades can significantly improve user experience, reduce traffic congestion, and promote more sustainable parking practices.

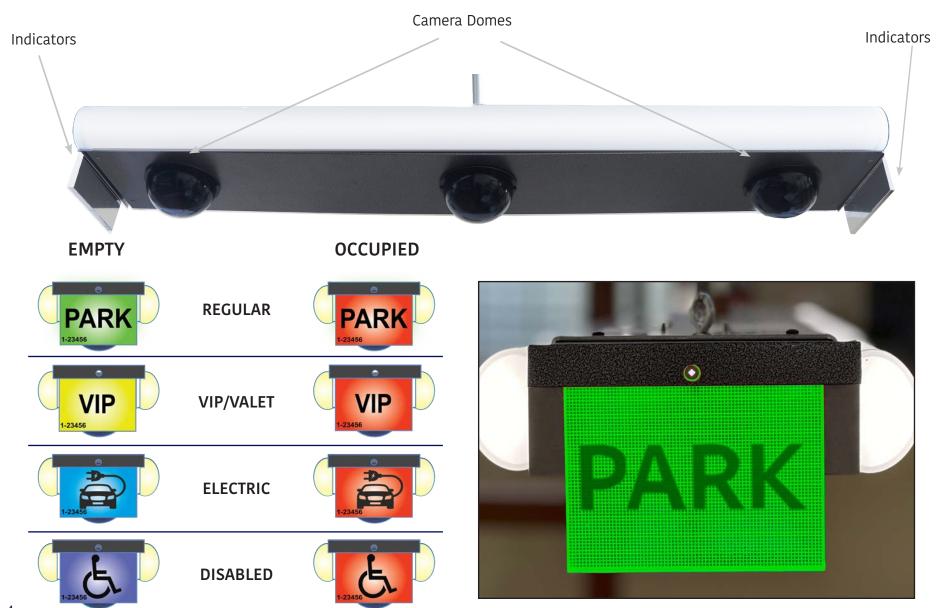
Key Features:

- User-friendly mobile app for easy payments using RFID and QR codes.
- Encourages membership with exclusive benefits.
- Monitors CO gas levels and activates fans to improve air quality.
- Visual indicators direct drivers to open spaces.
- Energy-efficient dimmable LED lighting lowers costs and extends light lifespan.

Revenue Opportunities for Owners:

- Offers services like valet parking.
- Uses RFID entry gates for easy access.
- Provides amenities such as EV charging and car detailing.

This is our multi-functional WIFI aisle light showing green indicators at each side and camera domes facing parking spaces



3. PARKING GUIDANCE FEATURES

The PARK-KIT Touchless Guidance System employs advanced Parking Guidance and Information (PGI) technology, providing drivers with real-time, dynamic information about parking availability. This system combines traffic monitoring, communication, processing, and variable message sign technologies to deliver an unparalleled service. With low-cost, WIFI-enabled solutions that require no expensive wiring, PARK-KIT empowers garage owners to manage operations efficiently while ensuring safety and security.

3.1 LED LIGHTING IS THE FUTURE

Energy Efficiency with Dimmable LED Lighting

Traditional parking lot lighting systems can be inefficient and costly. The PARK-KIT system utilizes dimmable LED lights that reduce brightness when there is no occupancy and are motion-activated, saving on electricity costs and extending the lifespan of the lights by up to 50%. LED technology is known for its energy efficiency, durability, and directional lighting capabilities.

Longevity and Durability

One of the most compelling advantages of PARK=KIT LED lighting is its longevity. LED fixtures can last between 50,000 to 100,000 hours, depending on their quality. This extended lifespan translates to reduced maintenance costs and fewer bulb replacements, making LED lighting a financially prudent choice for parking lot owners. The durability of LEDs also contributes to their overall cost-effectiveness, as they require less frequent servicing.

Improved Visibility and Safety

Dimmable LED lights provide superior visibility and color rendering, significantly enhancing safety in parking lots. The high-quality illumination offered by LEDs reduces glare and improves visibility for both drivers and pedestrians. This enhanced visibility not only minimizes the risk of accidents but also contributes to a more secure environment, fostering a sense of safety for users of the parking facility. PARK-KIT offers the ability to control lighting for security and efficiency.

PARK-KIT's lighting control system features:

- Smart Motion Detection: Lights automatically dim when no movement is detected, conserving energy and extending the lifespan of the lighting system. Light Emitting Diodes are known for their energy efficiency, using up to 90% less energy than traditional incandescent bulbs, significantly reducing energy costs (U.S. Department of Energy, 2020).
- Flexible Chaining Capability: Any number of lights can be chained together for dimming, allowing for customizable configurations based on the specific needs of the parking facility.
- Directional Optics: Our LED lights cover a wider area then other types of lighting, enhancing visibility for drivers and pedestrians while reducing the need for over-vehicle lighting.

3.2 MINI QUAD COMPUTER TECHNOLOGY IS REVOLUTIONARY

At the heart of the PARK-KIT system are the mini quad computers integrated into the colored indicator lights. These powerful devices play a vital role in recognizing the occupancy status of parking spaces. Utilizing advanced algorithms and image processing techniques, the quad mini computers analyze real-time data captured by cameras installed within the lights. By continuously monitoring parking spaces, these computers can accurately determine whether a space is occupied or vacant, providing critical information for effective parking management.

Efficient Utilization of Parking Spaces

Real-time data allows for efficient guidance of drivers to available spaces, reducing the time spent searching for parking and minimizing congestion within the lot. By optimizing parking space utilization, the guad computers contribute to a smoother and more efficient parking experience.

Universal WIFI System for Seamless Coordination

To facilitate seamless coordination and monitoring of parking occupancy, PARK-KIT employs a universal WIFI system. This system enables communication between the mini quad computers in the lights, the central management system, and the mobile app used by drivers. The universal WIFI system ensures that data is transmitted in real-time, allowing for immediate updates on parking availability and occupancy status.

Real-Time Monitoring of Parking Occupancy

The combination of high-speed WIFI and on-board computers enables real-time monitoring of parking occupancy. As vehicles enter or exit parking spaces, the mini quad computers detect these changes and transmit the information to the central system. This capability allows parking lot operators to maintain an accurate and up-to-date view of parking occupancy, facilitating efficient management of parking resources. Operators can make informed decisions regarding space allocation and optimization, ultimately enhancing the overall efficiency of the parking facility.

Benefits for Drivers and Parking Lot Operators

The integration of high-speed WIFI and quad mini computers in PARK-KIT lights offers numerous benefits for both drivers and parking lot operators. For drivers, the seamless coordination and real-time monitoring of parking occupancy ensure a smoother and more convenient parking experience. They can easily locate available spaces, significantly reducing the time and effort spent searching for parking.

For parking lot operators, the technology enables efficient management of resources, leading to improved operational efficiency and customer satisfaction. By optimizing parking space utilization and reducing congestion, operators can enhance the overall functionality of their facilities.

Key Features

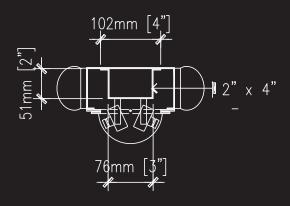
- Accurately recognizes full or empty spaces, providing real-time updates.
- ▶ Houses a program for reading license plates across North America, facilitating efficient vehicle tracking and management.
- Networks with other lights or can be linked into groups for enhanced communication, ensuring seamless operation.

THE PATENTED PARK-KIT GUIDANCE AND LIGHTING SYSTEM

Once PARK-KIT members have followed colored indicators to a chosen parking area, like an electric vehicle charging station or a handicap parking space, their license plate is "read" by a tiny camera and is then instantly matched with the license number on their RFID sticker, which was recorded on Google Cloud as they entered the lot.



Dome Camera with on-board computer

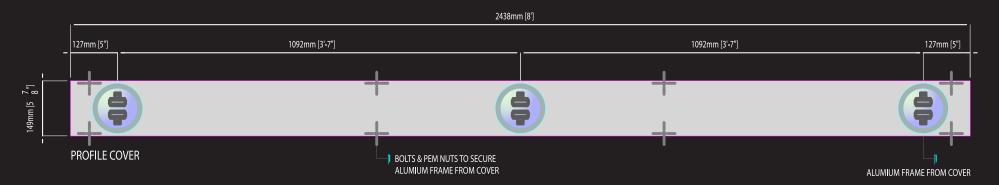


Camera 'reads' license plate and matches it to the RFID sticker



RFID sticker

Dimmable LED light with CO & Smoke Monitors controlled by the WIFI Mini Quad Computer



3.3. SEAMLESS RADIO-FREQUENCY IDENTIFICATION (RFID) TAG & KIOSK INTEGRATION

Upon entering a PARK-KIT facility, drivers encounter an entry kiosk equipped with an RFID reader. This reader is designed to scan the RFID tag affixed to the windshield of the vehicle.

Entry Procedure

When a driver approaches the kiosk, the RFID reader captures the tag information and records the entry time. This data is then transmitted to the PARK-KIT server, where it is processed by the app software. The system confirms the driver's arrival, ensuring that the parking facility is aware of the vehicle's presence. The driver is notified of their arrival and once parked, the location of the vehicle.

Exit Process and Payment

As drivers prepare to leave the parking lot, the RFID system automatically records the exit time. The customer app, which can be downloaded from both the Apple and Android stores, processes this information and calculates the total parking fee based on the duration of the stay. Upon exiting, the customer is charged automatically, streamlining the payment process and eliminating the need for manual transactions at payment kiosks.

Enhanced Customer Experience

The PARK-KIT RFID Tag and Kiosk system significantly improves the customer experience by reducing wait times and simplifying the parking process. Drivers no longer need to fumble for tickets or wait in line to pay; instead, they can enjoy a seamless entry and exit experience. The automatic charging feature further enhances convenience, allowing customers to focus on their activities rather than parking logistics.

Increased Operational Efficiency

For parking lot operators, the RFID system streamlines operations by automating entry and exit processes. This automation reduces the need for staff to manage manual transactions, allowing them to focus on other aspects of facility management. Additionally, the real-time data collected by the system provides valuable insights into parking occupancy and usage patterns, enabling operators to make informed decisions regarding space allocation and resource management.

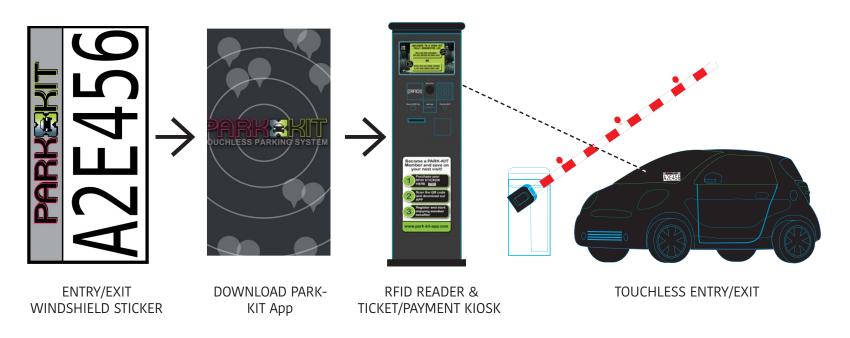
Improved Revenue Management

The PARK-KIT system enhances revenue management by ensuring accurate tracking of entry and exit times. This precision minimizes the risk of revenue loss due to human error or miscalculations. Furthermore, the automatic payment process ensures that all customers are charged appropriately for their parking duration, maximizing revenue potential for parking operators.

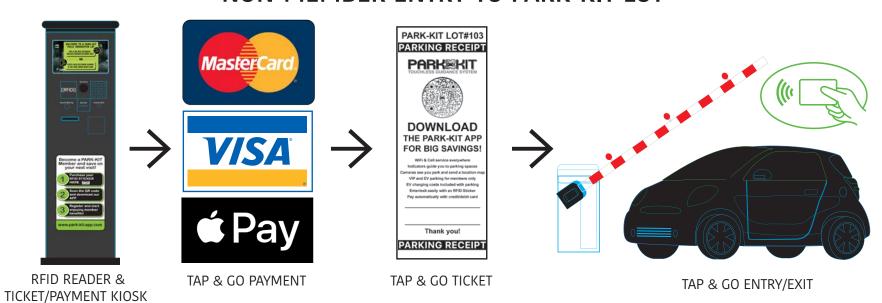
Key Features

- Increased Operational Efficiency
- ▶ Improved Revenue Management
- ► Enhanced Customer Experience

MEMBER ENTRY INTO PARK-KIT SYSTEM LOT



NON-MEMBER ENTRY TO PARK-KIT LOT



3.4 CUSTOMER MOBILE APP

- 1. Enhanced Operational Efficiency: By eliminating the need for physical payment methods and lot attendants, the PARK-KIT app streamlines operations. This reduction in manual processes allows parkade owners to allocate staff resources more effectively, focusing on maintenance and customer service rather than transaction management. The automation of entry and exit processes also minimizes the potential for human error, leading to smoother operations.
- **2. Increased Customer Satisfaction:** The user-friendly design of the PARK-KIT app enhances the overall parking experience for customers. With an intuitive interface and seamless payment process, users can enjoy a hassle-free experience, which can lead to higher customer satisfaction and loyalty. Satisfied customers are more likely to return and recommend the parking facility to others, driving repeat business and positive word-of-mouth.
- 3. Membership Growth and Retention: The app's ability to convert non-members into members is a significant advantage for parkade owners. By issuing QR-coded tickets that encourage app downloads, owners can expand their membership base. The additional features and benefits offered to members, such as personalized preferences and exclusive discounts, not only attract new members but also enhance retention rates, ensuring a steady stream of revenue.
- **4. Targeted Marketing Opportunities:** The advertising add-ons provided by the PARK-KIT app allow parkade owners to engage directly with their customers. By promoting special pricing, membership incentives, and other promotional offers within the app, owners can effectively reach their target audience. This targeted marketing approach can lead to increased sales and higher utilization of parking spaces, maximizing revenue potential.
- **5. Valuable Data Insights**: The integration of the PARK-KIT app allows parkade owners to collect valuable data on customer behavior and parking patterns. This data can be analyzed to gain insights into peak usage times, customer preferences, and overall occupancy rates. With this information, owners can make informed decisions regarding pricing strategies, resource allocation, and marketing efforts, ultimately optimizing their operations and profitability.
- **6. Competitive Advantage:** In an increasingly congested urban environment, offering a modern, efficient parking solution can set parkade owners apart from competitors. The PARK-KIT app positions owners as forward-thinking and customer-centric, appealing to tech-savvy consumers who value convenience. This competitive edge can attract more customers and enhance the reputation of the parking facility.

Key Features

- User-Friendly Mobile App
- Encouraging Non-Members to Consider Membership Benefits
- Advertising Add-Ons

The Park-Kit App is easy to download.

For our members who have downloaded this App, there is no lining up for payment kiosks, no fumbling with credit cards, no worries about parking overtime, this is a once & forever, seamless, parking experience.

Note: There is advertising space at the bottom of the texts that members receive. Garage owners/operators can earn ex ra revenue by using this space as a "billboard" for other businesses or for promotions/messages to the members.





START PAGE



ACCOUNT



MY VEHICLES



VEHICLE DETAILS

SELECT THE PAYMENT METHOD FOR THIS GUEST

FIRST NAME STEVEN

LAST NAME HEXEN

XXXX CARD NAME

1234 5678 9876 5432

MAX MUSTERMAN

O XXXX CARD NAME

1234 5678 9876 5432

Your Bank

Your Bank



ADD CARD



MENU

ACCOUNT

\$ PAYMENTS

(E) FIND A PARK-KIT LOT

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NOTIFICATION



GUEST DETAILS



MENU

(\$)

FIND A LOT

3.5 ADMIN APP GIVES ULTIMATE CONTROL

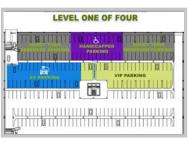
As urban environments become increasingly congested, the demand for efficient and convenient parking solutions has never been greater. The PARK-KIT Touchless Guidance System revolutionizes administrative management for parking facility operators by enhancing operational efficiency and optimizing space utilization.

- Real-Time Monitoring: Advanced sensor technology tracks parking space availability, providing valuable insights into usage patterns.
- > Data-Driven Decisions: Operators can make informed decisions to ensure effective utilization of every parking space.
- Comprehensive Reporting: Tools for analyzing trends and adjusting pricing strategies maximize revenue based on demand and occupancy.
- User-Friendly App: Streamlines operations by allowing users to find, reserve, and pay for parking seamlessly, reducing the need for on-site staff.
- Customer Loyalty: Membership programs offer exclusive discounts, benefiting both users and operators.
- Advertising Opportunities: Integrated digital signage promotes local businesses and events, creating additional revenue streams.
- Environmental Monitoring: Features ensure a healthier parking environment, supporting sustainability goals.
- Energy Efficiency: Dimmable LED lighting enhances safety and reduces operational costs.
- Setting Standards: PARK-KIT meets the evolving challenges of modern urban environments, ensuring facilities are efficient, user-friendly, and environmentally responsible.





Vacant Parking Spaces on Entry Screen



Screen With Occupancy in Real Time



License Plates "Read" on Entry



Indicator Colors and Dimming Levels



Custom Ads can be sent out as notifications



The Colors and Dimming Levels are easy to Change

3.6 EV CHARGER INTEGRATION

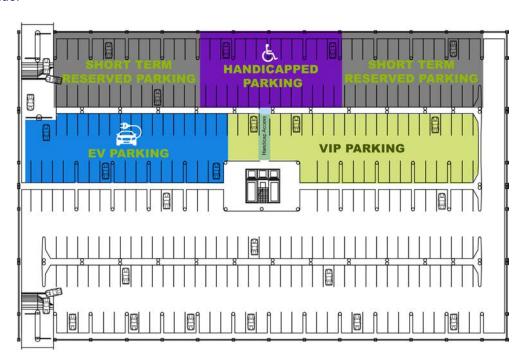
Our charger is located in a gated section of the lot accessible to VIP members. The cost of charging is built into the parking charge. After charging is complete the customer gets a notification on the App.

Solutions for Parking Lot Owners

As a parking lot owner, finding innovative ways to increase revenue is always a top priority. These features not only enhance the overall parking experience but also provide opportunities for generating or saving additional revenue.

Specialty Parking: Convenience and Premium Service:

Valet parking is a premium service that offers convenience and a touch of luxury to customers. By designating a dedicated valet space within your parking lot, you can attract customers who value convenience and are willing to pay a premium for a hassle-free parking experience. With PARK-KIT, you can efficiently manage the valet parking process, ensuring smooth operations and customer satisfaction. Offering valet parking not only increases revenue through higher pricing but also creates a positive impression of your parking lot, leading to repeat business and positive word-of mouth referrals. Employees can be directed to less accessible areas to park as well, so that prime areas generate the most revenue.





4.0 PARK-KIT COMPETITION ANALYSIS

Looking out into the online landscape there are many companies offering parking guidance systems. Below are a selection of the most common along with the details of what they offer:

PARK-ASSIST

Park Assist is a leader in smart parking solutions, utilizing advanced sensor technology to monitor parking space availability in real-time. Their system provides detailed analytics on space usage, allowing operators to optimize their parking layouts and improve space utilization.

INDECT

INDECT specializes in parking guidance and management systems that offer 99.9% real-time accuracy in monitoring parking space usage. Their software provides comprehensive reporting tools that help parking lot owners analyze usage trends and adjust pricing strategies accordingly. This level of precision ensures that every available space is utilized effectively, maximizing revenue potential.

SMARKING

Smarking focuses on improving traffic flow within parking facilities through their data-driven approach. Their platform analyzes historical parking data to identify peak times and optimize space allocation. By implementing a car counting system, Smarking helps reduce the time drivers spend searching for parking, thereby alleviating congestion and improving overall traffic flow.

PARK-MOBILE

ParkMobile is known for its user-friendly mobile app that allows users to find, reserve, and pay for parking spaces seamlessly. Their app integrates with various parking guidance systems, providing real-time availability updates and enabling users to manage their parking experience from their smartphones.

PAYBYPHONE

PayByPhone offers advanced payment solutions that integrate with parking guidance systems. Their platform allows users to pay for parking via mobile devices, eliminating the need for physical payment stations. This automation streamlines the payment process, enhancing user convenience and satisfaction.

SPOTHERO

SpotHero has successfully implemented loyalty programs through their app, encouraging users to sign up for memberships. These programs offer discounts, priority parking, and exclusive deals, fostering customer loyalty and increasing usage. SpotHero's partnerships with various parking facilities also provide users with a wide range of options.

PARKJOCKEY

ParkJockey integrates digital signage within parking environments, allowing operators to promote local businesses, events, or special offers. This advertising capability creates additional revenue streams for parking operators while enhancing the overall user experience.

CLEVERCITI

Cleverciti offers environmental monitoring features, including CO gas sensors that trigger ventilation systems when CO levels exceed safe thresholds. This proactive approach ensures a healthier environment for users and aligns with sustainability goals.

PARKHELP

Systems like those from ParkHelp integrate fan activation based on real-time air quality data. By automatically adjusting ventilation based on occupancy and air quality, these systems improve user comfort and contribute to a healthier parking environment.

TIBA PARKING SYSTEMS

TIBA Parking Systems utilizes RFID technology to streamline entry and exit processes in parking facilities. Their RFID-enabled systems reduce wait times and enhance the overall efficiency of parking operations, making it easier for users to access parking.

CHARGEPOINT

Parking lot owners can diversify their revenue by offering additional services such as electric vehicle (EV) charging stations, car detailing, and vending machines. Companies like ChargePoint provide EV charging solutions that can be integrated into parking guidance systems, creating a more comprehensive and profitable operation.

PARKING LOGIX

OpenSpace guides drivers into available parking spots, sharing data where they want it most. And best of all, it can be fully installed in just a morning. Wireless parking sensors at ingress and egress points keep count, variable message signs and API integration communicate your data to potential customers, and the Logix on Cloud system gives you control with optimized analytics.

SIGNAL TECH

Redstorm is more than a car park system with software. It has the ability to count vehicles while redirecting patrons to alternate or overflow parking through a network of fully integrated, intelligent Smart Signs. As parking capacities fill up, RedStorm can change the messages on Smart Signs to alert and redirect traffic.

PARKLIO

Get real-time information about the number and types of vehicles parked in each parking bay and better manage your resources. Based on the software's valuable information, you can make informed decisions and improve the overall efficiency of your parking facilities.

COMPANY NAME	CUSTOMER & ADMIN APP	CUSTOM LED LIGHTING	BUILT-IN WIFI CAMERA	RFID READER/ KIOSK	EV CHARGER	WAYFINDING INDICATORS	HARD WIRING INSTALLATION
PARK-KIT	YES	YES	YES	YES	YES	YES	N/A
PARK ASSIST	YES	NO	YES	NO	NO	YES	YES
INDECT	YES	NO	NO (Ultrasonic sensors)	NO	NO	YES	YES
PARKHUB	YES	NO	NO	NO	NO	NO	NO
SPOTHERO	YES	NO	NO	NO	NO	NO	NO
PARKMOBILE	YES	NO	NO	NO	NO	NO	NO
CLEVERCITI	NO	NO	CAMERA SENSOR on lamp posts	NO	NO	YES	YES
PARKHELP	NO-parking manager software	NO	Ultrasonic technology	NO	NO	YES	YES
TIBA PARKING SOLUTIONS	YES	NO	NO	Entry/Exit Systems	NO	NO	YES
CHARGEPOINT	NO	NO	NO	NO	YES	NO	YES
PARKING LOGIX	NO	NO	YES	Entry/Exit Systems	NO	NO	NO

5. HERE'S WHY PARK-KIT IS THE OPTIMAL SOLUTION FOR YOUR PARKING NEEDS:

In an era where efficient parking solutions are crucial for optimizing space utilization, enhancing user experience, and driving revenue, the PARK-KIT Touchless Guidance System emerges as a leading choice in the realm of smart parking technologies. This summary outlines the key advantages of the PARK-KIT system, making it the optimal solution for modern parking needs.

- **1. Seamless Traffic Flow:** The PARK-KIT system improves parking lot operations by providing real-time data feedback, facilitating efficient traffic management, and significantly reducing congestion.
- **2. Cost-Effective Installation:** With its low-cost, Wi-Fi-enabled solutions, PARK-KIT can be installed without the need for expensive wiring or raceways, offering a budget-friendly option for parking facility owners.
- **3. Advanced Parking Guidance:** Featuring high-visibility indicators and advanced sensors, the system accurately displays parking availability, minimizing customer frustration and the time spent searching for a parking spot.
- **4. Energy Efficiency:** PARK-KIT's LED lighting solutions consume up to 90% less energy than traditional bulbs, resulting in substantial savings on energy bills and reduced maintenance costs due to the long lifespan of LEDs.
- **5. Enhanced Security Features:** Equipped with onboard mini-quad computers, the system can read license plates and monitor parking spaces, providing an additional layer of security and safety for users.
- **6. User-Friendly App:** The PARK-KIT app streamlines parking management, allowing users to make automatic payments, add guests, and access additional services, thereby enhancing the overall customer experience.
- **7. Admin Management App:** Manage one or multiple parking lots effortlessly with the Admin App, which enables pricing adjustments, creation of special parking sections, and membership pricing through a single powerful interface.
- **8. Integration of EV Charging:** The PARK-KIT system includes integrated electric vehicle (EV) chargers, addressing the growing demand for EV charging and maximizing revenue opportunities for parking facility owners.
- **9. Customizable Lighting Control:** The dimmable LED lighting can be easily adjusted via a mobile app, allowing for tailored lighting levels that enhance safety, security, and comfort for users.
- **10. Touchless Entry and Exit:** The touchless RFID system facilitates seamless entry and exit from parking garages, improving convenience for customers, reducing the need for ticket attendants, and increasing overall satisfaction.

6. CONCLUSION

In summary, the PARK-KIT system offers a comprehensive solution that enhances parking management, improves customer satisfaction, and promotes sustainability, making it a valuable investment for parking facility owners. The PARK-KIT Touchless Guidance System is not just a parking solution; it's a comprehensive approach to creating a more efficient, user-friendly, and profitable parking experience. By integrating insights and technologies from leading parking guidance companies, PARK-KIT sets itself apart in a competitive market.

Choose PARK-KIT for a smarter, more sustainable parking solution that meets the demands of today's drivers and operators alike.

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