

No Manual Inspection Dockless Parking E-bikes Rental System

The [electric bike lock](#) makes electric bikes with GPS tracking system and QR code system which ebikes riders can rent and use it via e-bike rental APP. It utilizes IoT technology to implement a sharing and rental service for e-bikes.

The working principle of an electric bike lock is as follows:

1. Integration with IoT: The electric bike lock is equipped with IoT technology, which allows it to communicate with a central management system via the internet.

2. Unlocking Mechanism: Users can unlock the bike using an e-bike rental app, RFID card.

The [e-bike rental app](#) sends a signal to the lock, verifying the user's credentials.

3. Control Unit: The electric bike lock contains a control unit that processes the unlocking signal. If the credentials are valid, it sends a command to the locking mechanism to open.

4. Power Source: The lock is powered by a battery, which is often rechargeable. Some locks may also incorporate solar panels for extended battery life.

5. GPS and Connectivity: The electric bike lock includes GPS tracking system and connectivity modules (like GSM, LTE, or NB-IoT) for real-time tracking of the e-bike's location and status.

6. Sensors: Various sensors within the lock detect tampering attempts, report battery levels, and monitor the lock's status.

7. Security Features: OMNI electric bike locks are advanced that have additional security features like alarms, geo-fencing alerts, and notifications sent to the owner or management system.

8. Data Transmission: All data collected by the e-bike lock (e.g., location, usage statistics) is transmitted back to the central management system for monitoring and analytics.

Most importantly,by this electric bike lock,with its stability and completeness,users love to use your e-bike fleets with better user experience.You can make more income without human maintenance because this smart lock can maintain good operation over a long period.

Omni IOT

Professional Team
Self-Developed

Smart
Locking
Solution

OC32

Completely upgraded

RFID Card Unlocking/ Wi-Fi Assisted Positioning

The electric bike lock works greatly with e-bike rental APP for users. The lock is compatible with operator APP as well.

After installed the electric bike lock on e-bikes fleets, you can also tracker and monitor all vehicles via backend.



For ride share service operators For fleet manufacturers



City cycling



School



Scenic Area



Residential Area

Built-in IoT smart bike lock

Real-time monitoring
bikes E-bikes fleet



QR system with GPS tracker

Bikes Ride Share Service



Plastic Shell, Alloy Base

Durable, corrosion-resistant,
and eco-friendly materials.



10mm steel rim

high strength, anti-pry, and
anti-cut.



RFID Card Unlocking

Contactless identification and
unlocking. Fast and convenient.



WiFi Positioning

When GPS is weak, nearby WiFi
can assist with positioning.



Regulated Parking Urban Management

Smart bike lock works with parking beacon
for standard parking.



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Personal/Shared/Long-term Rental Unlock Process

Personal



1. Turn on
Bluetooth

2. Pairing
horseshoe lock

3. Tap "Unlock"

4. Unlock
successful

Shared



1. Select Vehicle

2. Scan and
unlock

3. Server executes
command

4. Unlock
successful

Long-term Rental



1. Select Vehicle

2. Select rental
plan and pay

3. Server executes
command

4. Unlock
successful