



# FROM THE GROUND UP: How to Start Your Scooter-Sharing Business



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# SCOOTER SHARE

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To say that global scooter-sharing has become increasingly popular is an understatement. In the U.S. alone, the number of trips people took using shared micromobility skyrocketed to 136 million in 2019—and about 60% of these rides were on an electric scooter. The rapid adoption of electric two-wheelers has resulted in an unprecedented growth of private scooter-sharing operators deploying fleets all over the world.

Capturing a piece of the multi-billion-dollar scooter-sharing market is an accessible reality for any entrepreneur with the right resources and guidance in place. As with any new industry, market data and standards for best practices can be limited or, in some cases, are still in the process of being defined. For this reason, many would-be operators still have difficulty understanding how to launch their own scooter-sharing fleet from the ground up. This eBook is designed specifically for the prospective scooter-sharing operator who is thinking of launching his or her own fleet.

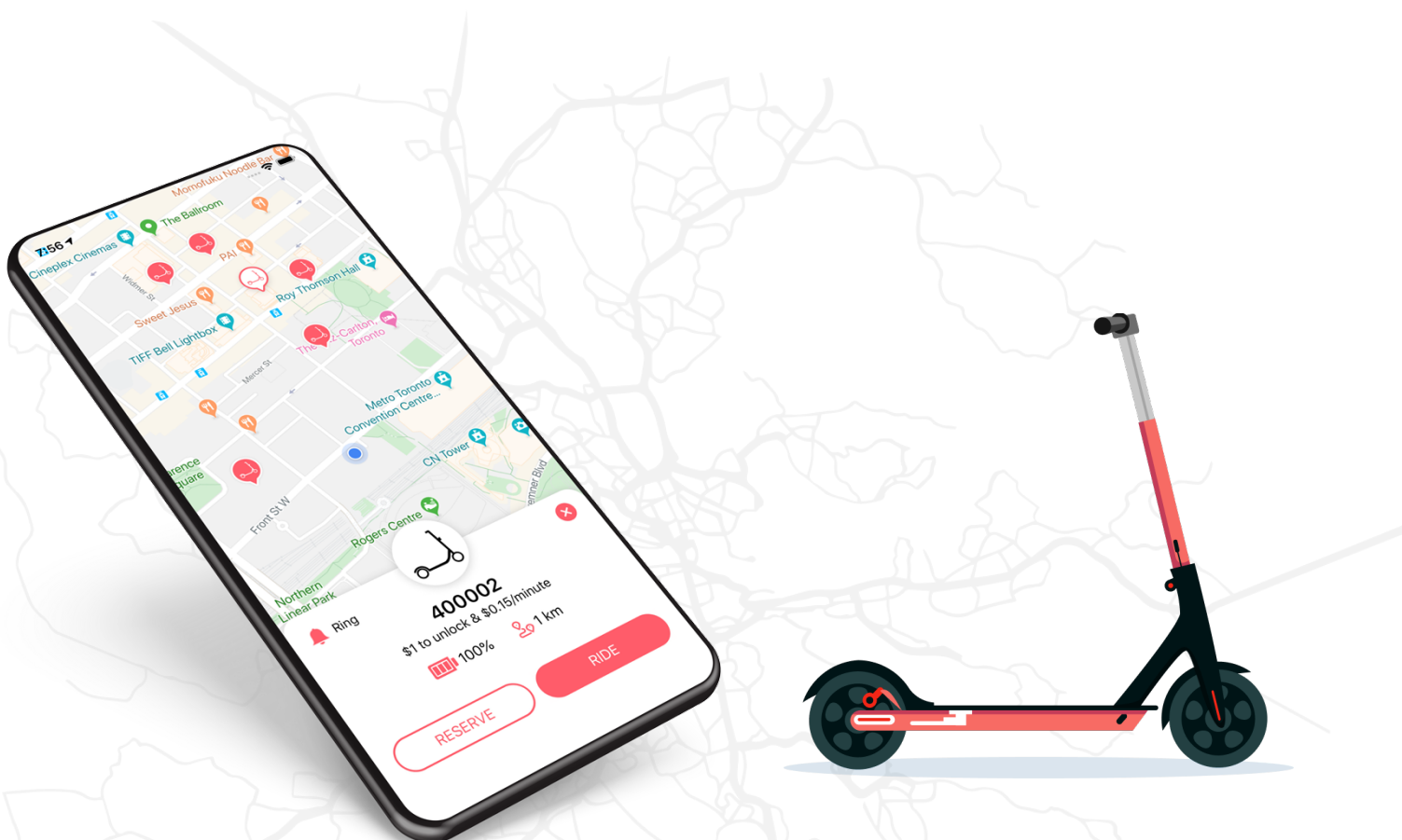
## DOMAINS

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There are four major domains that must be considered when starting a scooter-sharing platform:

- ✓ Hardware
- ✓ Software
- ✓ Operations
- ✓ Regulations

These four components carry equal weight, and each will be explored in subsequent sections.



# Hardware

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There are two primary elements within this domain that must be addressed by any prospective operator:

## 1. Scooters

You can't launch a scooter sharing system without vehicles. There are a wide range of scooters available on the market today. While one manufacturer, Segway-Ninebot, is presently dominating with an estimated 80% global market share, there is an ever-growing number of hardware producers that are manufacturing high-quality and innovative scooters. Among them are ACTON and Okai – both of which are fully compatible with Joyride's software platform. And through our turnkey solutions, we enable our customers to receive preferred pricing and reduced delivery windows from a number of these leading manufacturers.

The scooters you use will require connectivity, either with Bluetooth, GPS, GPRS, 3G/4G or a combination of thereof. This will be what is used to tether the unit to the rider's mobile device, allowing them to access that specific vehicle. Typically, the connection can be obtained either by entering a vehicle number or by scanning a QR code.

The scooters designed for a sharing platform have a range of features to make both your operational needs easier and improve the user experience. Some features related to these products today include:

- Larger wheelbases, allowing for a more comfortable ride on uneven terrain
- Swappable batteries, reducing the effort required by operational staff in keeping the units charged
- A variety of cosmetic features, such as LED lights, a bell, speakers, places for advertising and QR Codes

Spare parts for your vehicles will be critical to your operations. These will enable you to increase the lifespan of your fleet at a lower cost.

## 2. IoT Device

In order to operate your scooter fleet, each scooter needs to be IoT (Internet of Things) enabled. This means the scooter is able to connect to the internet, which is typically conducted by connecting to a user's mobile phone, or by being synced directly to the internet itself through a SIM card. This allows the scooter to act as a global positioning device (GPS), while also (depending on the type of connectivity) being able to transmit additional operational data to improve fleet efficiency. Additional data can include the real-time battery charge of the scooter or whether any of the internal sensors on the IoT device/scooter have been triggered. Examples of this include sensors to determine if a scooter has been knocked over or stolen.

IoT devices are a must. They enable both the operator and user to locate devices via a computer or phone, unlock and lock the scooter, and report missing or maintenance tickets.

The IoT device can be connected either internally to the scooter on compatible models or retrofitted externally, generally onto the handlebars of the vehicle. In many cases, a retrofitted IoT device will only be able to transmit the geolocation of the scooter. However, new products are being produced that will allow for external connectivity that provides further data transmission capabilities.

You will also need to purchase a data plan and SIM cards for each one of your IoT devices so they can send that data and real-time position. There are many different data partners out there that sell data at a variety of prices. Determine the markets in which you're launching and that will help you narrow down your data strategy. Costs can vary dramatically, so it's worthwhile to do some research here.

While building your own IoT device may be an option, it can overly complicate and add to your overhead (there are off-the-shelf products available for purchase, too). The important part is to properly integrate whatever IoT device you use into your backend software, which can be complex and take time, so ensure you find professional electrical and software engineers to do this. Ideally, having an IoT device already integrated with your vehicles will make this step seamless in terms of launching and eventually scaling your business.

## Software

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Software is perhaps the most important part of your business. This includes the rider mobile app, the backend fleet management system, all operator apps or tools you use and any integration with your vehicles.

Software can be difficult and costly to build independently, particularly when considering the hardware integrations necessary. Therefore, it is wise to consider using an existing turnkey platform as this can be significantly more cost-effective and much faster to implement. And when being first to market is so important, you don't have the six months it will take to build your own software, especially when it's possible for your white-label solutions to be completely developed and operational within days through Joyride's platform

Scooter-sharing software can be broken down into two elements:

### 1. Rider App

The rider app is essential for any scooter-sharing operation. It should be available for both iOS and Android in order to ensure that all markets can be addressed. The mobile app will be used by riders to locate the vehicles, reserve them and plan a walking route to them. (In our case, Joyride's rider app accommodates multiple renters at one time.) It must also have the capacity to connect to the scooter and unlock it. The app should display all available scooters within a particular area, while also maintaining all user profile data, payment information and ride history.

The mobile app should be easy to use and consistent with other platforms on the market to avoid confusion in the user. Design elements should be used to reflect the unique branding of your particular fleet.

Other key features that are critical for increasing retention and daily usage are promotions and flexible pricing. Having the ability to reach your customers through SMS and email campaign updates is a powerful marketing tool and an effective way to stand out from your competitors. You should also be able to upsell your customers with weekly, monthly and annual passes.

## 2. Operator Tools

The Backend, Backoffice or Dashboard refers to the component of the software utilized by the fleet managers and employees of the operation.

The backend for scooter fleet management software should be web-based. However, you will also require a mobile application for field staff to use in order to locate and rebalance your fleet.

The backend should have the capacity to track the present location of the vehicles associated with a fleet, while containing them within geofenced boundaries. It should also be able to specifically flag certain vehicles for maintenance and repairs so your users can't rent them. Another must-have feature is the capacity to receive and respond to support tickets. This will ensure that you and your team are swiftly able to address any reported concerns of your riders.

## Operational Requirements

Operational requirements refer to the day-to-day activities necessary to ensure the fleet remains in service. While these can be very specific to the region or business model in which your system is intended to launch, there are generally some universal requirements that must be considered:

### 1. Staffing

While some scooter-sharing companies will allow non-licensed individuals to receive a nominal fee for collecting and charging their units (often called "chargers"), this will likely not sufficiently address all the charging needs of your fleet. Furthermore, almost all municipalities will require an operator to dictate how he or she intends to address the charging of scooters independently. As such, it will be necessary for operators to be able to collect, store and recharge their units without relying on a loose "charger" network. This means the new operator will have to hire staff for the purpose of nightly collection and rebalancing. This will also ensure that all your vehicles are being properly collected and maintained to your standards, as well as the standards of the hardware manufacturer. Scooters contain lithium-ion batteries, which makes them susceptible to explosion if not charged with their manufacturer's charging cables.

### 2. Fleet Collection/Rebalancing

Many operators deploy their fleets in the morning and then collect them in the evening for recharging. Rebalancing, meanwhile, is conducted throughout the day. Rebalancing refers to the collection and movement of the vehicles to areas that will maximize the usage of the fleet. A solid rebalancing strategy will involve monitoring where users are riding the vehicles and at what hour of the day. Bringing the appropriate number of scooters to these locations will ensure that a unit can be quickly and easily located by a prospective rider and increase the likelihood of future use.

Rebalancing also gives your staff an opportunity to swap out old batteries for fully charged ones if your scooters support that functionality.

To optimize efficiency, most operators will use large trucks or vans to ensure that they can collect as many scooters as possible in one trip. While these vehicles can be expensive, they will significantly increase the capacity of the charging staff. Consider using electric vehicles to reduce your carbon footprint. The amount of staff you require will depend on the geography of your city, how many vehicles you have in operation and how much maintenance your vehicles require. It is also worth exploring how an autonomous repositioning strategy may work for your fleet, such as one introduced by self-driving scooter company Tortoise, which integrates with Joyride's platform.

### 3. Storage for Maintenance

Many scooter fleets are operated on a rotational maintenance structure. This provides riders with constant availability to a specific number of scooters, while also ensuring that deterioration due to wear-and-tear is minimized as much as possible. However, this means that scooters will need to be stored at a location when they are being repaired/charged. Regardless, many cities are making this a requirement for an operating licence. It can also be a liability to have the scooters operational at night. Typically, a storage unit that provides electricity, a warehouse (or portion of one) and/or commercial building is used.

Even with regular maintenance, an operator should anticipate a six- to 12-month lifespan per scooter, though hardware manufacturers are increasingly introducing innovative solutions to extend scooter lifespans beyond 12 months. A scooter with a longer lifespan will likely be worth the rise in price.

## Regulatory Requirements

While a business-to-business scooter-sharing model operates privately (at hotels, corporate campuses, etc.), most municipalities will have certain requirements of the prospective scooter-sharing operator within their limits. While each municipality is unique, there are common features:

### 1. Permits

Most cities/towns will require an operator to obtain a permit in order to work within their boundaries. In addition to a fee (which may be a base fee, a per-trip fee, or some combination thereof) the city will likely require the operator to submit a package that includes details of their business plan. Typically, these requests come in the form of a Request For Proposal (RFP). Common features of historic RFPs include:

- Company details
- Scooter details
- A maintenance schedule
- Hours of operation for the fleet

- Pricing
- Fleet size
- Customer service/complaint ability
- Safety history
- Community education plans
- Privacy policy

Each of these considerations will require careful thought and planning. The RFP process is evolving quickly. Through our Joyride Alliance umbrella of services, we provide RFP writing and consulting to help scooter-share businesses launch in new markets with effective and expedited program applications.

## 2. Insurance

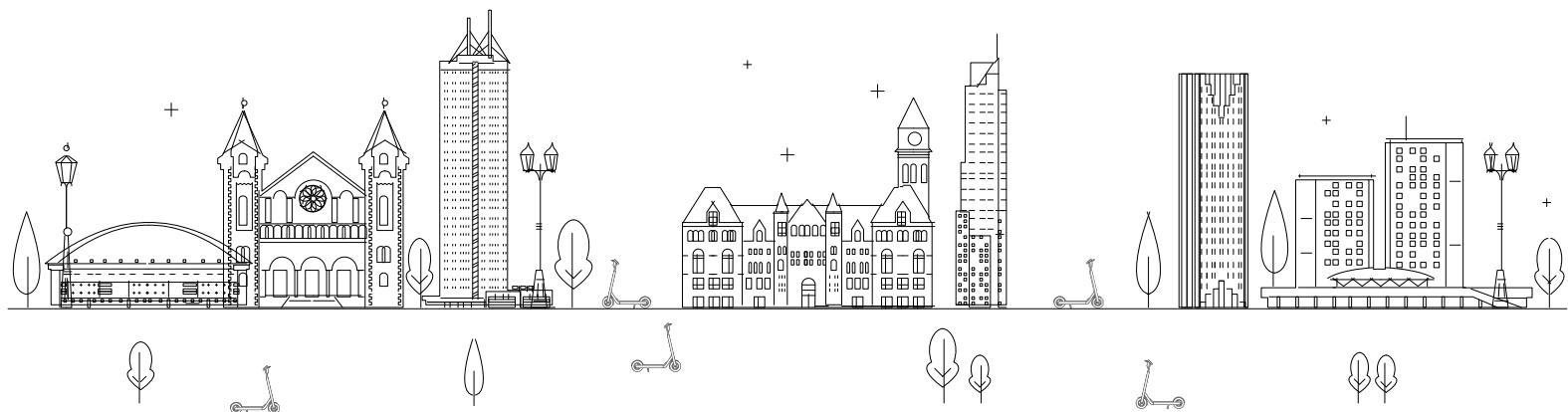
If you opt for a consumer-focused scooter model, rather than a business-to-business one, almost every municipality will require a scooter-sharing fleet to obtain insurance in order to operate within their boundaries.

There are different types of insurance coverage options available. Municipalities are primarily concerned with an operator obtaining a Commercial General Liability policy. This is the coverage that will be triggered if a rider is injured or damages property not related to the scooter fleet. In insurance terminology, this is known as Third-Party Coverage.

An operator may also be interested in obtaining First-Party Coverage. This is the coverage that will come into effect if one of the fleet’s scooters or other property is damaged, broken, stolen, etc. It should be noted that wear-and-tear is an exclusion on all first-party policies, meaning that replacement of a unit due to deterioration from regular use will not trigger a claim. Most cities will not require this form of coverage.

A city will need to see a certain limit of coverage – the maximum amount that will be paid under any claim. Smaller, less litigious municipalities may only require \$1-\$2 million USD in coverage, while larger cities may need to see \$7-\$10 million USD. Again, Joyride wants to simplify the complicated and costly insurance process. Through Joyride Alliance, we provide access to world-class group insurance policies at affordable rates that are paid monthly, not upfront.

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# Ready to start your journey? Get in touch

Scooter-sharing is a lucrative, modern and sustainable business venture. Moving quickly in this market can give you, the prospective operator, an advantage over the competition.

In order to launch seamlessly with top-of-the-line features and simultaneously meet regulations, we recommend partnering with a software provider capable of addressing your questions and providing the necessary and deep connections with hardware manufacturers to guarantee you the best price and supply. Joyride has enabled operators of all sizes to launch and scale in more than 100+ markets worldwide with a platform designed to support fleets ranging from five to 500,000+ vehicles.

Contact Joyride at [hi@joyride.city](mailto:hi@joyride.city) to schedule your free consultation with a team member to learn more about how you can be part of one of the fastest-growing industries in technology.

