



With over 76% of the US population owning a car, it's easy to imagine the nightmare with parking. **You drive to work, your kids to school, and your partner drives their car to the store.** You visit museums and theatres on the weekends, restaurants in the evening, and the million other excuses you have for entering the city limits on a daily basis.



Or you live in the city. You go to the outlet mall for your weekly grocery shopping to come back and circulate for what seems like an eternity, trying to find the closest parking spot to home. You drop a colleague home after work or you visit family and friends.

Thankfully, cities across the world are recognizing the *pain* parking brings.


Smart parking innovations are popping up in major cities throughout the United States, Europe, and Asia. These cities are called Smart Cities. Why so? Let's take a look.

1. Smart parking sensors

The idea is simple: install sensors throughout the city that communicate with an app to help drivers find free parking spots.

The realization, not so much: the ground needs to be dug up to install these sensors. **Inner city construction is notorious for creating traffic backlogs.** The project will also *reduce* the number of available parking spaces during construction.

It's a project where the visionaries need to think in the long run. **Focus on the outcome rather than the process.** The local council will need to create a campaign to notify the public about the projected plan and objective.



Major cities such as San Francisco, Singapore, and Berlin already employ this technology – the pioneers of smart parking innovations.

2. Parking applications

Free parking apps are a *dream come true* for all car owners. The major apps available offer:

- Space availability
- Space reservation
- Reservation in advance
- Flexible reservation times
- Payment options – in advance
- Top-up payment options
- On-street, public, and private parking spaces
- Times-up reminders

These [parking apps](#) can be downloaded on iOS or android. **They're a money- and time-saver** for when meetings run over, dinners flow into drinks, and when you just want to relax and check out that new exhibition in the museum.

3. Stacked parking



Source

Double-decker parking solutions do just that—double your parking space. Their technology uses a simple elevation

The downside to this is a higher level of *organization*. For employers, it's best to allocate parking spaces so those who leave later park first. This allows a smooth transition for car owners who leave earlier.

These options work best for:

- Car dealerships
- Mechanic workshops
- Ferry crossings
- Private residences
- Robot valet parking (more on this below)

The conception is indeed smart, but the realization can be tricky. The onus is to first *identify* your need, *evaluate* the current parking timings, and *proceed* to choose the best solution.



4. Subterra parking lifts

This smart parking solution is designed with homeowners in mind. After you park your car in your garage and exit it, **your car is lowered to a subterranean space.**

Many private homes come with basements and underground garages. Store your cars here, choose which one you prefer to drive, mount the lift and drive away without a congested driveway.

Also popular with inner city parking garages. Employing *automated parking valets*, they can now utilize underground space without needing to spend too much on human navigation.

Your car will be automatically transported to an available parking spot underground, possibly tiered, optimizing space to the max, but more on that below.

5. Reduced fees for EVs

This innovation for smart parking promotes the use of electric vehicles.

An objective for smart cities is to reduce carbon emissions. Therefore, it makes sense to offer lower parking rates for EVs. Smart move.

In conjunction with smart parking apps and designated EV charging stations, you can brave inner city parking with your EV.

If you don't need to charge your car each time you park it, you can apply for a residential parking permit at a *reduced cost*. There's no one price however, it fluctuates depending on local councils, but definitely worth looking into.

6. Robot valet parking

According to IEEE, [Robotic Valet Automated Parking Systems](#) (APS) is a viable solution to the parking problem. Designed initially for dedicated parking lots, **the automated parking service saves car owners time and gas looking for available space.**

When you enter the lot you drive your car onto a sort of loading dock. With the help of an app, you can leave your car and let the robotics do the rest.

The dock automatically transports your car to the nearest free space. This [reduces accidents](#), saves space, can use parking lifts, and boosts the overall efficiency of the parking garage.

In the unlikely event of any mishaps, the services of a dedicated [car accident lawyer](#) are readily available to provide expert guidance and support.

7. Solar panels parking shades



Source

Marrying smart parking and renewable energy, this innovation is just the tip of the iceberg. For outdoor parking lots, installing solar panels as shades offer the following:

- Parking safe from drastic weather conditions
- Reduced opportunity for bird dropping to dirty your car
- Production of energy while optimizing space