August 26, 2013

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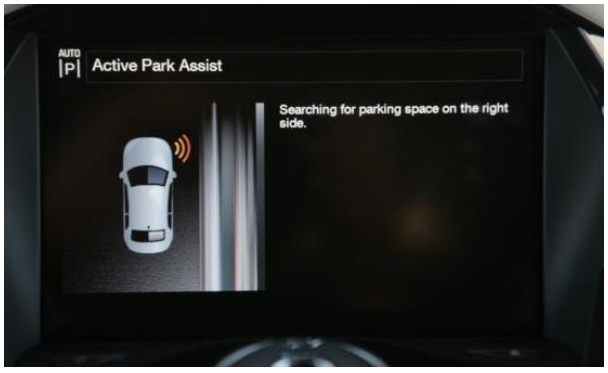
Top transportation technologies for urban dwellers

We've rounded up a few of our favorite technologies for getting from here to there on crowded city streets.

Getting from point A to B quickly and safely in the crowded confines of a large city requires a different set of skills and technologies than are required by the open road. Drivers must drive efficiently in conditions that are inherently inefficient. They must be aware of not just other vehicles, but also more fragile pedestrians and cyclists. Without spacious parking lots, drivers must cram their vehicles into tiny street parking spaces or cramped public garages.

To this end, I've rounded up a few of my favorite transportation technologies for crowded city streets. "Why 'transportation' and not 'car' tech?" you ask. Well, you may find that sometimes the best way to get around is to not drive at all.



Automated parallel parking

Found in Ford and Lincoln vehicles, but also making an appearance in certain Mercedes-Benz and Land Rover models, automated parallel parking is the ultimate in automotive tech for places where parking is tight and hard to find. These systems steer the vehicle into a spot by temporarily taking control of the electronic power-steering system while you retain command of the brakes and accelerator. The best variants of this tech, such as the one in the Ford Focus Titanium, will also automatically scan for spaces of appropriate size as you cruise curbside, eliminating much of the guesswork when deciding, "Will it fit there?"

Rear and around-view cameras

Cameras not only aid in parking, but can also increase the safety of pedestrians around the vehicle. Rear cameras keep you from running over people and things when reversing and can keep drivers uncomfortable with parallel parking from resorting to using the bumper feeler method. Around-view cameras give a bird's-eye view of the area around the car and help when squeezing into small spots and through tight openings and alleyways. Front cameras such as those on certain BMW and Range Rover models give dual 90-degree views from the front bumper, allowing drivers to peek around corners when nosing large vehicles out of garages or blind alleyways and into pedestrian, vehicular, and cyclist traffic.

Dashboard cameras

Dashboard cameras are, obviously, also camera-based technology, but serve a different purpose. Rather than protecting people and objects around the car, a dash cam can protect you from litigation after a fender bender, unfair tickets from traffic cameras, insurance fraud, and more. I've taken a look at one dashboard camera by Cowon, but there are dozens of options available.

Pedestrian safety systems

Pedestrian safety systems come in a variety of flavors. Preventative systems watch for pedestrians ahead of the moving vehicle and automatically apply the brakes if the driver is distracted or incapacitated to stop the vehicle before an accident ever happens. Volvo's City Safety system is an example of this. Even the best preventative systems aren't foolproof, so protective systems protect pedestrians in the event of a collision. Features from the shape of the vehicle's front end to spring-loaded hoods to -- in the case of the Volvo V40 -- cowl airbags that deploy at the base of the hood protect the human body from the force of a collision.

Electrification technology

When people think about vehicle electrification, we usually jump straight to EVs, which despite being optimized for efficient driving over the short ranges typical of city living are ironically more difficult for city dwellers to adopt because most don't have garages to install chargers in. Public charging stations are becoming more readily available, but it will take time for EVs to be widely viable.

When I call electrification a "top tech for city dwellers," I mean hybrids. These vehicles are easier for drivers stuck with street parking to keep fueled, but still benefit from fuel economy optimization for the low speeds and constant stop-and-go of city driving. Plug-in hybrids and range-extender EVs are a step further, allowing limited full-electric driving when you can charge up and the convenience of gas-and-go when you can't.

Car9sharing and driver services
Sometimes the best car in the city is the one that you don't own. Services such as Zipcar and City CarShare make it easy for drivers to get access to a car when needed, but without worrying about maintenance, fuel costs, toll passes, or parking for the six days of the week that they don't. Car sharing gets bonus points for giving drivers access to SUVs and vans for transporting bulky items or moving furniture and to smaller, more practical sedans and hatchbacks for less cargo-intensive trips to the grocery store.

True, car sharing isn't really a technology, but it's a heavily tech-dependent service that usually allows users to reserve and find vehicles with smartphone apps and unlock vehicles via RFID or telematics technology.

Lately, I've also been using app-accessible, driver-for-hire services like Uber and Lyft to get friends and me home after nights of partying -- when I can't drive myself. If you're not comfortable with driver services, apps like Taxi Magic are also great for snagging a yellow cab.

Live public transportation schedules and navigation
In cities where the buses and trains run reliably and regularly, public transportation can often be the best way to get where you're going with minimal effort. However, even the best public transportation systems can get off-schedule once and again, so apps like Transit are helpful for getting up-to-the-minute estimates of when the next train or bus is arriving. Google Maps also offers transit directions as one of its routing options, which helps users unfamiliar with a city's public transportation system to find their way around.

Previous versions of Google Maps even included a transit navigation function that would guide the user step by step and stop by stop through a trip. The most recent version of the Google Maps seems to have lost this feature, but I'm hoping for its swift return.

Electric bicycles and bike sharing services

Old tech meets new here. Electric bikes are poised to bring the advantages of pedal power to an ever-growing number of commuters and city dwellers. Right now, the price is a bit prohibitive: the Specialized Turbo that I was able to test runs a cool $5,900, but there are less expensive options on the market now and I expect the average e-bike cost to drop over the next few years. The advantage of biking (electric or not) is that the bikes are relatively cheap and easy to maintain when compared with cars, are easier to park than large vehicles, and take up much less space on the road. Pedaling a few blocks, even with an electric assist, is also healthier for you and those who don't have to breathe your exhaust fumes. Electric bikes also carry the advantage of reducing the amount of sweat that you'll work up on your way in to the office.

The disadvantage of cycling is that you have to share the road with cars, which (for a variety of reasons) is probably the biggest deterrent for new cyclists.

For those who only want to try cycling, only need a bike occasionally, or don't want to be bothered with storing and maintaining a bicyle, there are bike share services that been popping up in major cities around the world with varying degrees of success and acceptance. For just a few bucks, you can grab a set of wheels for a few hours to run your errands. RFID and app technologies help to make grabbing a bicycle a seamless and simple experience for bike share members.

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