

Advanced Techs in Your Car by 2025

Technologies are always defining our cultures and will define even more in the future. We always hear people complain the exciting automotive future from childhood movies never materialized. Those movies were just ahead of their time. Every tech improvement in the car industry has made us get closer and closer to that exciting future. According to IBM automotive leaders' study, self-learning, self-healing, social network communicating, Internet-of-Things operating cars are the wave of the future.

Thanks to these new technologies, cars are becoming more and more smart, and self-learning will definitely become a feature in the future cars. "The cars' software will learn the tricks that humans use to avoid hazards: for example, braking when a ball bounces into the road, because a child may be chasing it"(Clean, safe and it drives itself). This scenario happens quite frequently in our daily life, especially when a divers drive SUV and children are too short. With this technology, once divers brake cars in this scenario, cars will learn it and will automatically perform similar operations to avoid tragedy occurring.



Self-driving cars have been a hot topic in recent years, and a lot of car manufactures like Audi, BMW and Mercedes are developing these cars. Besides, tech companies like Google, and even Uber is also developing self-driving cars. The feature of self-parking is also added. Once this technology is widely applied, the number of car crashes will plummet. Liberated from the need to keep our hands on the wheel and eyes on the road, drivers will have more time for working, leisure, and staying in touch with loved ones. "Google's fleet of self-driving cars has logged more than 700,000 miles without causing an accident. Audi let me pilot its sleek prototype from Silicon Valley to Las Vegas earlier this year. And just last week, the bonkers Mercedes-Benz robo-car concept was roaming San Francisco" (Self-Driving Cars Will Make Us Want Fewer Cars).

With these exciting news, we can expect cars will become increasingly autonomous over the next 20 years.

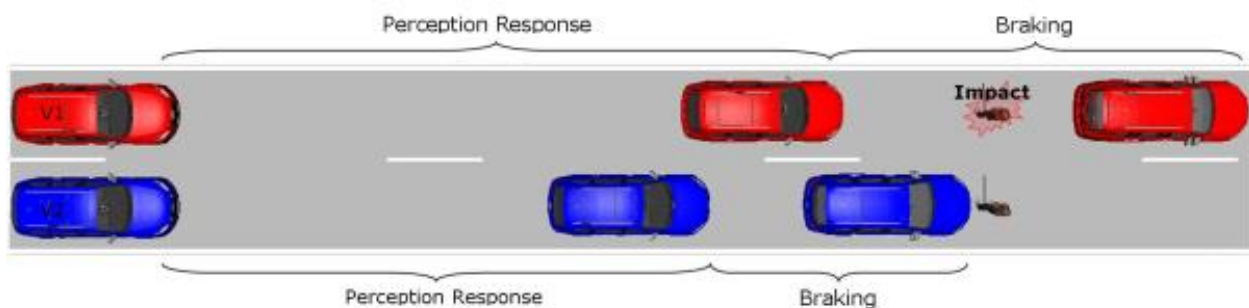
The development of auto materials make self-healing cars become possible. The most amazing feature of the conceptual car Audi A9 is “the single-piece windscreen/roof which is to be designed using a currently undiscovered nanotechnology material. This material will allow the car to repair any damage automatically as well as change color and opacity, changing visibility in both directions”(Audi A9 Concept Car Repairs Itself And Changes Color). The self-healing paint can be applied not only cars, but also electronics, aircraft, etc. “When a scratch occurs on the outer coating, the chemical structure is damaged and the chitosan responds to the UV component of sunlight. Chemical chains are then formed with other materials in the coating, eventually filling the scratch” (Self-healing car paint uses sunlight to repair scrapes). The amazing news is the healing process can take less than an hour and may eventually lead the “scratch free car” or other products in the future.



Compared with the past five years, we see a lot of cars have been equipped with big screens inside their cars. “In the very near future, dashboard may also become as versatile as laptops. Ford’s Sync, a multifaceted platform made by Ford and Microsoft, is an already available in the market. The next iteration of Sync grows into an integrated media hub called MyFord Touch, while in-car Wi-Fi (WiFi adapter via USB shown below, left) lets drivers take the Internet along with them. In the future, cars may not only entertain us but could improve driver awareness and reduce distractions, and the advent of electric vehicles will forever change how automobiles connect with infrastructure”(The Future of In-Car Technology).



Internet-of-Things and social networking technologies are stimulating one another for common development. According to IBM's study, "57% believe vehicle 'social networks' would be in place where vehicles would communicate with each other, allowing vehicles to share not only traffic or weather conditions, but information specific to a given automaker. For instance, if a vehicle was experiencing some type of problem not recognized before, it could communicate with other vehicles of the same brand to seek help on what the issue might be"(What advanced tech will dominate your car by 2025? IBM knows). More importantly, a connected car can communicate with other vehicles and the surrounding infrastructure as an active safety measure. 'It's like a heartbeat that's sent out from every car, with status information,' says iSuppli's Robinson. 'If there's a red light ahead and the car is going too fast, you'll be sent a message and the car will stop you from crashing into an intersection'"(The Future of In-Car Technology).



Besides above technologies, there will be more advanced techs like alternative fuels, as well as new car gadgets, and wheels, utilized in the futures cars. Technology is changing people's lives in every aspect. I can imagine a world with cars that emit water or oxygen or don't even emit

anything, and a world with no accidents and mostly computerized cars with optional auto-drive in the future.

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