

Driverless Automobiles

While the idea of a completely driverless car is just now being realized, automobiles have utilized computer technology for a couple of decades.

It started with the use of anti-lock brake technology that first showed up in the 1980's. After ABS became common place, computers and sensors were developed further to bring about options like traction control. If we went forward 10 years from the last development, we start to see the first glimpse of what a driverless vehicle can do. If you have a car that can self-parallel park, then you have a basic understanding of how a driverless car can work. By utilizing short, medium, and long distance sensors and "lidar" (light detection and ranging), GPS, and pre-loaded maps, the computers in cars are fast enough to assess what traffic is doing on a moment to moment basis to an accuracy of about 1 cm. while getting you to your final destination safely (Google has been testing a fleet of driverless cars since 2009 and has yet to have a significant crash incident).

While the idea of driverless cars sounds enticing for a night out of drinking or long distance road trips, there are currently many traffic laws in every state that say a driver has to be in control of their vehicle at all times while it is moving. As these cars and driverless systems (see the Chauffeur system tested by Google) become more common by 2018 and later, these laws will have to be changed to accommodate new cars on the road. Auto manufacturers such as BMW, Mercedes, Volkswagen, Audi, and even Tesla are all rolling out driverless vehicles within the next 5 years.

As more automobiles' functions are surrendered to computers, the materials used in manufacturing these computers will undergo more stringent demands under harsher environments. Taiyo has been working with automobile suppliers and manufacturers to ensure that our materials can perform well under the harsh conditions found under the car's hood, and we are also developing the next generation of materials. This is another way that we here at Taiyo strive to be Your Ultimate Solution.