TECHNOLOGY
AND THE FUTURE OF THE GARAGE

Perspectives from a UK garage door expert

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The future is now. Globally, 10 million self-driving cars are expected to be on the road by 2020. Technology is advancing rapidly on all fronts. And the modern home has more connected devices than ever. *What role will technology play in the garage of the future?*

Smart self-parking vehicles

Remember David Hasselhoff's self-driving car, KIT, in "Knight Rider"? The move toward fully automated self-driving cars has been gaining momentum in the past decade or so. Recent advancements by many companies, including Tesla and Google, have finally put driverless vehicles to the test on public roads in several U.S. states.

Of course, cars also need to be parked. We may soon see cars automatically parking themselves in garages.

Self-parking car trials are already taking place around the world in automated vehicle parking slots using robotic parking attendants. In Boulder, Colo., a company called ParkPlus is conducting trials on a fully automated parking facility. The company's automated parking system uses lasers to scan cars, and a robotic attendant parks the vehicles. We will likely see this technology filtering down to the home property market.

To enable cars to park automatically, markings may be added to garage floors to act as reference points for vehicles.

Electric charging

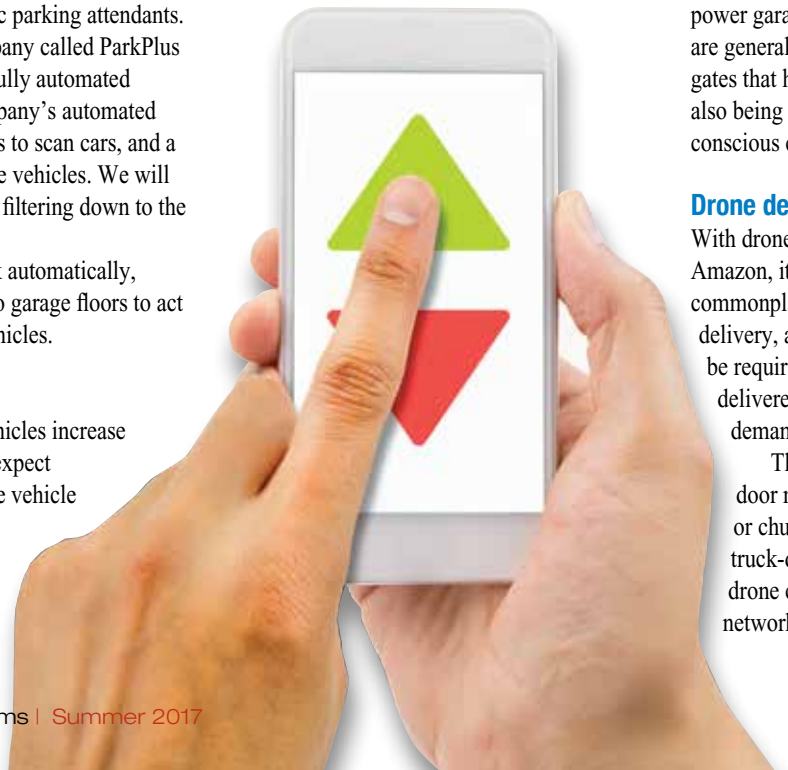
As electric and hybrid vehicles increase in popularity, we should expect modern garages to include vehicle charging points.

The demand for electric vehicles in the UK has increased significantly during the last four years. Electric vehicle registrations rose from 3,500 in 2013 to around 85,000 in January 2017. In the U.S., electric vehicles increased from 172,000 in 2013 to more than 400,000 in 2015. Globally, their numbers tripled from 2013 to 2015. Consequently, the number of plug-in charging points is increasing everywhere.

The modern garage may also see the introduction of wireless charging in a similar way to the inductive charging pads used by smartphones. Cars could be charged automatically, saving the homeowner from needing to think about plugging in the vehicle.

Solar panels

New garages could potentially have solar panels installed as standard, particularly on stand-alone garages with sloping roofs.



In the UK, there was a surge in putting solar panels on new garage roofs prior to the drop in the government tariff to homeowners for installing domestic solar panels. These homeowners chose to install the photovoltaic panels onto new garage roofs because main house roofs are often less suited to such panels. Solar panel installation on house roofs also involves more scaffolding and other associated costs and risks.

The garage door itself may become one giant solar panel. Although the economics of solar panel manufacturing may not make this practical for a while, flexible solar panels are already on the market. We may eventually see solar panels installed on garage door sections or on the individual slats of roller garage doors.

Many garage door and gate operator companies have seen a steady uptick in the sales of their solar-powered battery packs that power garage door and gate motors. These are generally used on stand-alone garages or gates that have no power supply, but they are also being used by the more environmentally conscious customer.

Drone delivery points

With drone delivery being tested by Amazon, it may not be long until it becomes commonplace. For safe and secure drone delivery, a secure location for drop-offs will be required. The rise in thefts of truck-delivered packages is also creating a demand for secure drop-off locations.

The modern garage or garage door may well have a drop-off hatch or chute to receive drone-delivered or truck-delivered packages securely. A drone could connect to the home's smart network, permitting access to the drop-off

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point. This would eliminate failed-delivery notices or having to leave packages with neighbors.

Change of space and size

Rising property prices and reduction in the size of new housing means that homeowners are increasingly looking to repurpose and reuse space. While new homes in the U.S. are getting slightly larger, UK homes are getting smaller. Yet in both nations there has been a marked rise in using garage space for purposes other than storing a car.

With automated cars, we may see a reduction in the physical space required in a garage to park a car, especially if the driver and passengers exit the automated vehicle on the driveway.

Modern cars no longer need to be garaged for their well-being. They do not rust or rot, and they have good built-in anti-theft and security devices.

As a result, more homeowners may convert garages into additional living spaces.

Still, selling a house with a garage enhances its value. Homeowners covet extra space. Regardless of how the space is used, a garage door on the front allows the homeowner to easily adapt the space without having to seek a permit for changing its use.

Biometric entry systems

Biometric entry systems are no longer science fiction. Modern smartphones have face recognition and fingerprint functionality, so we can expect contactless and biometric entry systems to become more commonplace in the garage.

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Many garage door opener manufacturers now offer modules that simply plug into the garage door's motor unit and are controlled by a smartphone app. Fingerprint scanners are slowly replacing digital keypads on garages for convenient and secure access control.

Energy efficiency and the garage

Insulated garage doors are already popular for homeowners seeking to make their garages warmer and reduce drafts. We can expect the modern garage to become even more energy efficient in the future, particularly as U-factor and energy efficiency requirements increase. The garage door industry is not as far advanced as the window industry when it comes to energy efficiency, but manufacturers continue to launch new insulated doors with lower U-factors.

We live in rapidly changing times. We would be wise to keep abreast of technological advances and prepare for inevitable changes in the industry that provides a living for all of us.

Mark Arridge is the founder and managing director of Arridge Garage Doors in Wolverhampton, near Birmingham, England. Prior to starting the business in 1989, he earned a degree in design technology and taught design and technology. Arridge Garage Doors is the only ISO 9001-approved online garage door company and is considered Britain's leading garage door discounter. ■