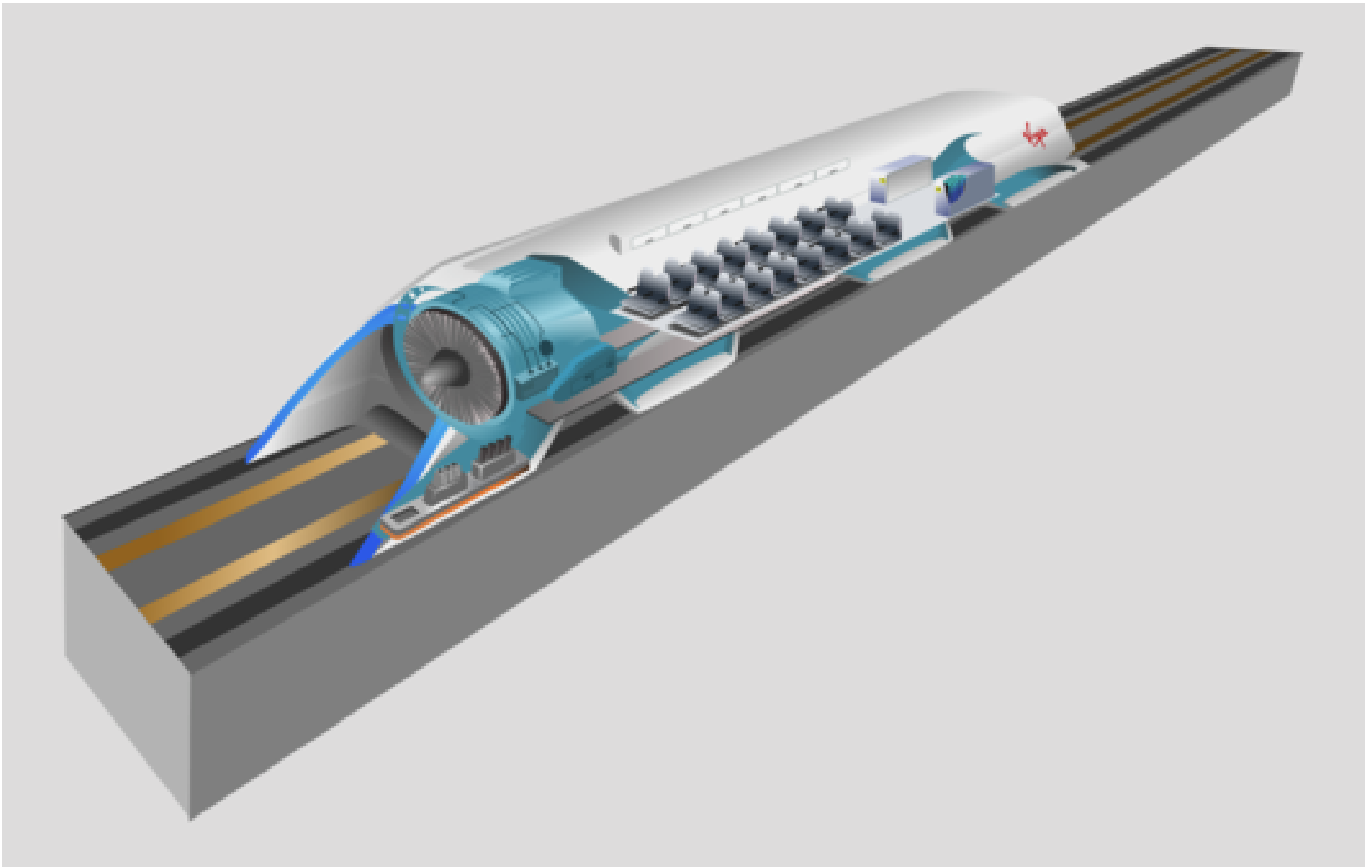
HYPERLOOP, AUTONOMOUS CARS, and the FUTURE OF TRANSPORTATION

What Is Hyperloop?



Video, time 1:33

https://youtu.be/LAWEOwDDt_Y

Critics suggest maintaining the required low pressure will prove a Sisyphean task over hundreds of miles. Others say seismic activity or subsidence could push the tube dangerously out of alignment. It'll also be difficult to protect the system from attack. And in case of emergency how easy will it be to evacuate? Then there's the cost to build and maintain what amounts to a brand new and simply massive bit of infrastructure.

These challenges, especially cost, get relevant when you go from prototype to scale. So, paper to prototype is a leap forward, but prototype to production may be a bigger one.

Pod design competitions, sponsored by Elon Musk's SpaceX and Boring companies, have attracted entrants from universities and entrepreneurs around the world. The team from the University of Munich won both the 1st and 2nd competitions. The competitions are held at the hyperloop tunnel outside SpaceX's headquarters.

1. January 2017--top speed of 58 mph

2. August 2017—top speed 201 mph.

Competition video, time 2:34

http://www.spacex.com/hyperloop

The next pod competition is scheduled for September, 2018

Self-driving, electric cars of the (near) future

Smart's vision for the self-driving electric fleet of the future

C.C. Weiss, August 30th, 2017

Smart is now taking the next step into the future, exploring a fully autonomous electric ForTwo developed specifically for urban car sharing.

The Vision EQ ForTwo fleet that Daimler envisions would use "swarm intelligence" to concentrate in areas of high demand, helping to shorten pick-up times and improve overall system convenience. There would always be available cars out roaming the roads based on this intelligent mapping, helping to foster higher utilization numbers and cut reliance on privately owned vehicles.

Smart car video, time 2:03

https://youtu.be/4Afk82PW_Y4

Audi’s new solar-roofed car expected by the end of 2017

Audi has teamed up with Alta Devices, a division of the Chinese solar-cell specialist, Hanergy, to develop thin-film solar cells that can be integrated into a panoramic glass roof. The solar cells would then power the vehicle’s electrical systems, like the air-conditioning system or seat heaters, which would improve the range of an electric vehicle. The idea of solar-powered accessories isn’t entirely new: both Toyota and Nissan have also used the technology.

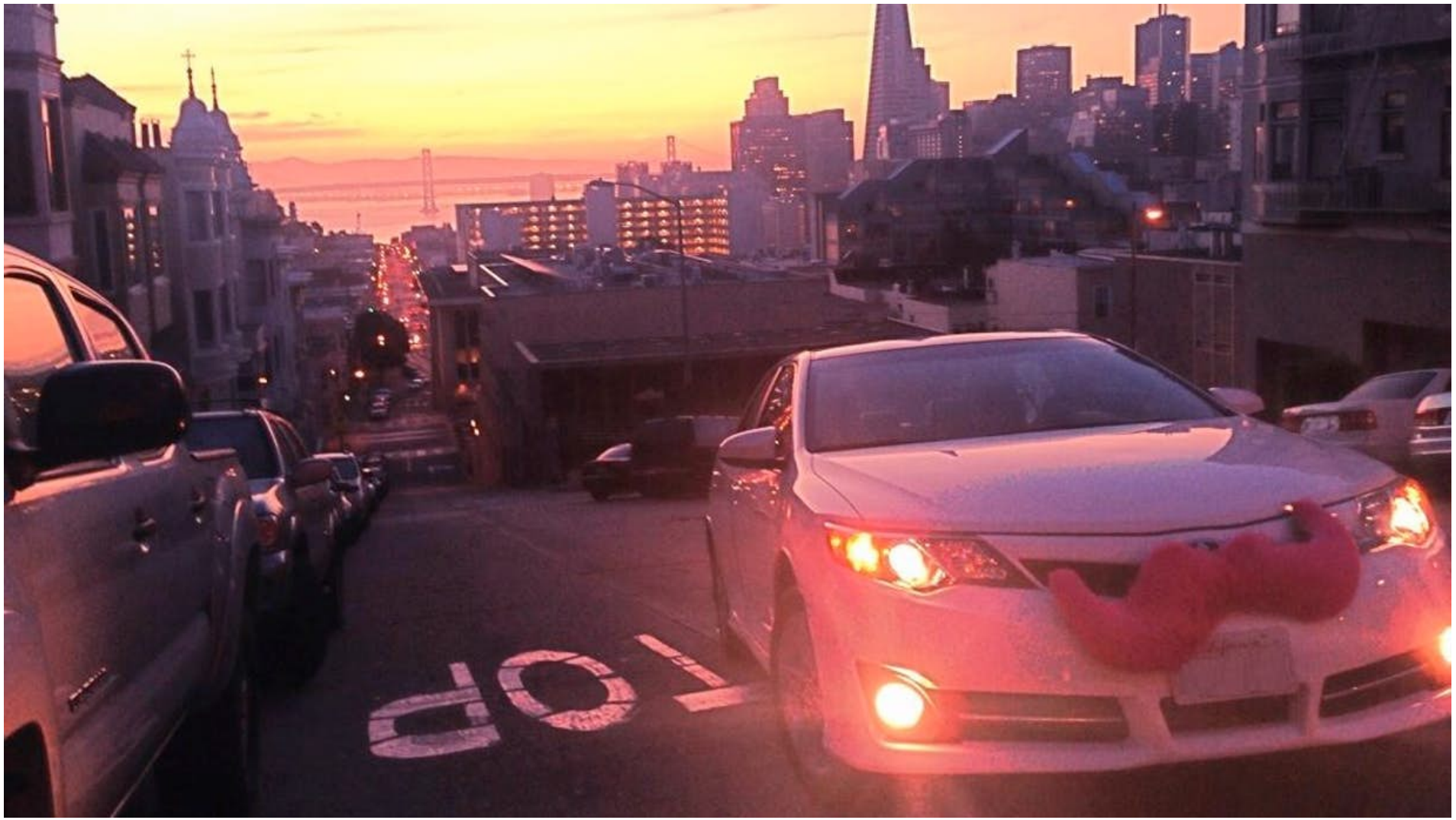
Singapore going all in on self driving cars at city scale

Singapore wants to use autonomous buses and trains for long distance movement of people. Self driving cars would be for the first and last mile.

Singapore has approved city scale testing of self driving and other solutions, and it will commit resources to create the regulations and plans to deploy a city scale solution. Business models are also being tested, modified and proven.

Singapore is designing many of its new towns to minimize vehicles and parking lots at the ground level. Autonomous shuttles will take people the first and last mile, such as from the train or bus depot to their home. Singapore is planning and wanting the full benefits of self driving and is counting on it to reshape the city-state.

Lyft self-driving vehicles coming to the streets of San Francisco



Lyft is getting busy forging partnerships with companies big and small in pursuit of its ride-sharing future, the latest of which is Drive.ai, a self-driving technology firm spun out of Stanford University. The two are now preparing to kick off trials of self-driving cars in and around San Francisco.

Disney, Amtrak and Jaguar Land Rover are among the bigger names to team up with Lyft in the last few months, while Google's Waymo and self-driving startup NuTonomy are a couple of lesser-known examples.

Autonomous transportation wasn't always the name of the game for Lyft, but last year co-founder John Zimmer made it clear that he sees it as a key part of the future, even claiming that the majority of Lyft rides will be delivered by self-driving vehicles within five years.

Scotland to phase out new gas and diesel cars by 2032

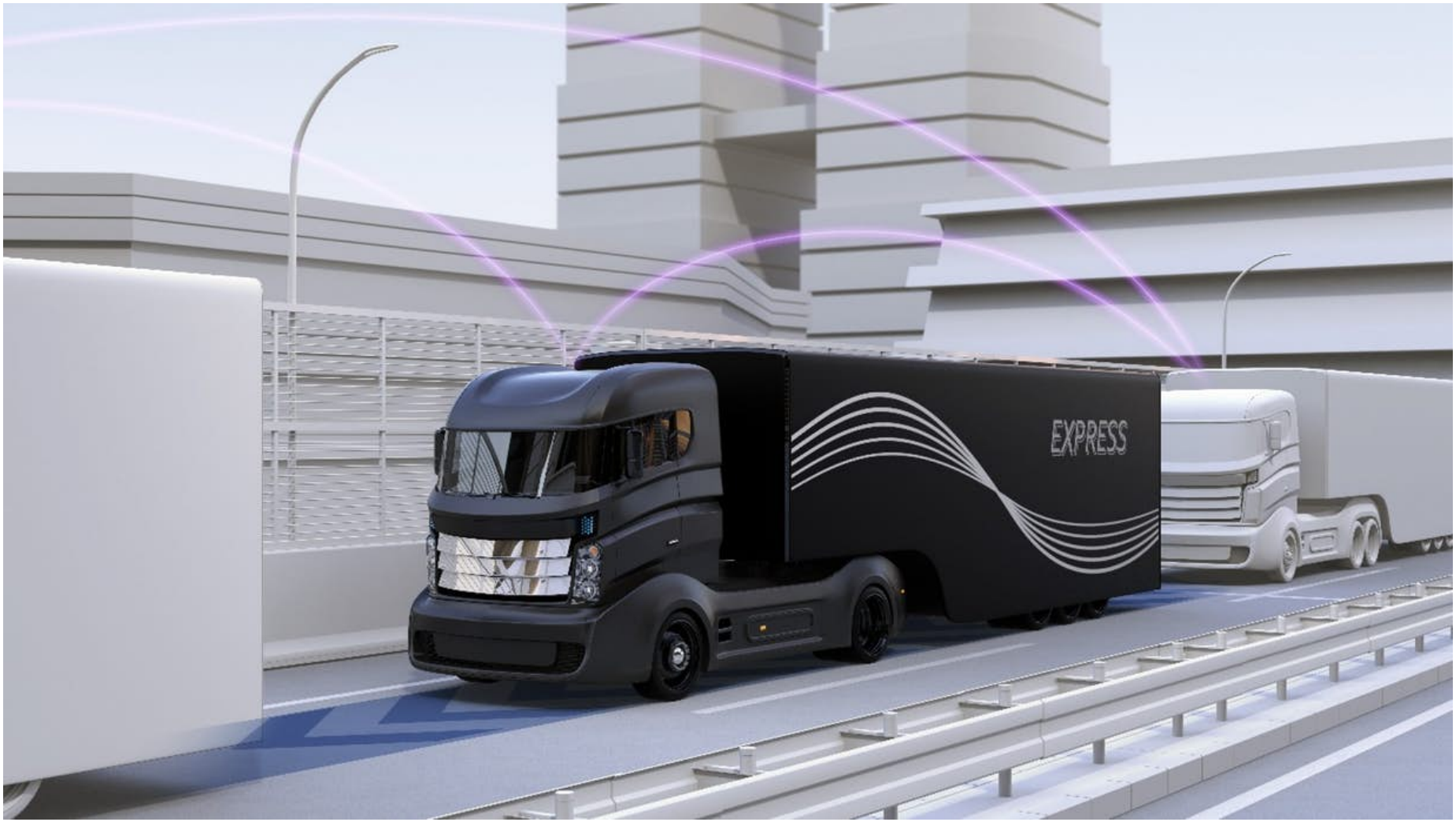
India to only sell electric cars by 2030

France to ban sale of new diesel and petrol cars in just over 20 years

Netherlands proposes ban on all new fossil fuel cars by 2035

China announces plan to ban sales of fossil fuel cars and shift focus to EVs

UK to trial self-driving truck platoons



In essence, truck platooning involves the vehicles being virtually connected to one another and continuously communicating their position, effectively operating as a single unit. Traveling so close together means that they take up less highway space, and trailing trucks can take advantage of the slipstream created by leaders, potentially improving fuel economy by as much as 10 percent.

Truck platooning shapes as an important part of the future of autonomous transport. By having self-driving haulers roll down the highway in tight formation, we could see huge reductions in congestion, accidents and C02 emissions. The UK government has just announced a new trial that will put this type of technology to the test, marking the first time self-driving platoons will be deployed on UK public roads.

The new venture from the UK government follows a number of truck platooning trials to take place around the world. In what was described as a world first, a platoon of trucks crossed national borders last year as part of the EU Truck Platooning Challenge. Daimler has also deployed autonomous truck platoons, while Singapore's Ministry of Transport is preparing for trials of its own.

Would you take a ride in a pilotless sky taxi?

Dubai says it will begin a five-year test period of the Volocopter later in 2017

Tech companies are competing to develop the first viable passenger-carrying sky taxis, whether manned or pilotless, but how soon could these clever copters really be whizzing over our cities? And would you trust one?

Dubai is racing to be the first to put drone taxis in the air.

In June, its Roads and Transport Authority signed an agreement with a German start-up, Volocopter, to test pilotless air taxis towards the end of this year.

The firm has received 25m euros (£22m; $30m) from investors, including German motor manufacturer Daimler, to develop the 18-rotor craft capable of transporting two passengers at a time.

The promotional video claims a top speed of 100km/h (60mph) and a maximum flight time of around 30 minutes, while nine independent battery systems ensure safety.

"You will never require" the onboard emergency parachute, Volocopter assures us.

Dubai's RTA has also teamed up with China's Ehang and is testing the drone maker's single passenger Ehang 184 "autonomous aerial vehicle".

The Ehang 184 will land automatically if any systems malfunction, its maker says