Self driving cars

Why in news?

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Recent crash involving an Uber driverless car in Arizona has ignited the debate on driverless car.

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What does self driving car means?

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- Self-driving or driverless or robotic cars use artificial intelligence and computing power to navigate from point A to point B, sensing their environment and making decisions in real time to avert mishaps.
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- They do this using a range of sensors and cameras on all sides, as well as predetermined digital maps and real time inputs about traffic and obstacles.
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- The first experimental self-driving cars started in 1984, but commercial trials are just a few years old.
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- The US is the hotbed of this technology, with at least 27 companies including Tesla, Google and Volkswagen seeking permissions for tests in California alone.
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Why do we need driverless cars?

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- In theory, it is great economics.
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- The 120 crore cars in the world sit idle for almost 95% of the time, making them perhaps the most inefficient human creation ever.

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- Uber thinks that if all cars were autonomous and shared to scale, they could eliminate 90% of these vehicles.
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- For residents of cities from Los Angeles to New Delhi, traumatised by traffic jams, this is an attractive idea.
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- Fewer cars also mean reduced need for parking spaces and a drastic reduction in pollution.
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- Plus, it is possible that self-driving cars would eliminate the human errors that kill thousands on the roads every year.
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- From Google to Uber to Nissan, dozens of companies are working on the concept of self-driving cars with varying degrees of autonomy.
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- All have different end goals — from reducing the number of cars on the road to making cars more efficient and safe.
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Are there any laws to regulate these cars?

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- None exists in reality.
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- Recently, California became one of the first US states to draft a set of broad rules for the “autonomous test vehicles” on its roads.
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- Among other requirements, the company running a test vehicle must put a driver behind the wheel as a failsafe.
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- The draft also made it mandatory to make it known to everyone on the road that the vehicle is an autonomous one.
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What are the obstacles for this technology?

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- Google’s self-driving car has been caught in multiple collisions.

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- And recent Uber self driving car crash despite the fault was on other car.
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- The technology is clearly nascent, and subject to other factors such as errors made by humans in other cars.
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- INDIA, with its chaotic driving environment, presents a slew of challenges for this new revolutionary technological concept.
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Source: The Indian Expres

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