Hey Tesla, this 19-year-old just used a 8MP camera to build a self-driving car. Go figure

Developed by a Bengaluru student, the system inside this self-driving car uses a cheaper camera option compared to LiDAR and GPS

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Technology is getting smarter every day. While Alexa, Siri, and Google Assistant tend to listen and respond, this prototype of a self-driving car that can not only drive but also follow traffic rules like stopping for the red signal — and it was built by an Engineering student in Karnataka. Shivashish Borah, a third-year engineering student from Sapthagiri College of Engineering and Technology has invented the self-driving car and goes on to explain on how different it is from the ones that are being prototyped and developed in countries like the USA. Singapore, China, England.

He said, "My invention is not a new one but it is different from the one which is invented in other countries. Lidar and Global Positioning System (GPS) is the technology used in other countries which will cost close to 5 to 6 lakh. To make it more affordable for the automobile industry, I have instead installed an 8-megapixel camera in the car to make it recognise traffic and symbols."

Earlier, he has worked on a project called Twitter analysis. Deep Learning software was used to identify if the people's tweets were positive, negative or neutral. His motto is to make technology more affordable so that everyone can use it

When asked how his self-driving car works without GPS system and only an 8-megapixel camera, he said, "The camera installed in this can do wonders as it captures images as it travels. It saves in on a memory card. For now, I have installed a 32 GB memory card in the car. Then after collecting a sufficient amount of images, the software makes a rough estimate of the path using visual odometry technology and tries to predict the position of the car in that path." The number of times it travels along the same path, the more the onboard AI learns and remembers what actions have to be performed.

He further goes on to explain that the car is more like a human brain that has learned to identify colors like red, green, orange and a zebra crossing as well. "Whenever there's a red signal, the car stops. As it turns green, the car moves ahead. Similarly, the car has learned to turn left or right or take a U-turn on a particular path." Apart from this, the car stops and guides itself through a new path whenever it comes across an obstacle. "Depending on the size and shape, the car identifies the object as an obstacle and this is again based on the different pictures it captures," he added.

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