

Scooters are now everywhere, and more and more people prefer them to another transport. Convenient, fast, environmentally friendly. However, their popularity led to an increase in the number of accidents. How to make trips safer and what new technologies do scientists offer?

Over the past few years, personal mobility means (they are SIM) have become very popular. In one scooter season, more than 200 million trips were made in 2024! Just think: since 2020, the market has grown 12.5 times.

However, due to such a rapid increase in the popularity of kikshering (rental of scooters), the number of accidents increased. In 2024, more than 4 thousand accidents occurred on electric scooters, compared with 2023, their number increased by 42%.

And in order to introduce the rules that really help to solve this problem, you need to understand exactly what risks are in wait for the scooters. Recently, scientists from Sweden even conducted a study: they equipped with cameras and sensors of 17 electric scooters. To understand what the main dangers are in wait for the roads, 6868 trips were made to them.

ТРАНСПОРТ БУДУЩЕГО

ОЖИДАНИЕ:



РЕАЛЬНОСТЬ:



Voucher

As it turned out, the main threat lies in the habits of people and their self-confidence. The probability of getting into an accident, when people go on a scooter together or hold a drink in their hands, rises 3 times. Or, for example, aimless riding, when a person winds up circles around the courtyard, and not just travels from a point, but to point B, increases the risk of an accident by almost 5 times.

Sometimes people themselves provoke accidents for the sake of jokes. In 20% of cases, drivers intentionally created dangerous situations on the road-for example, they crashed into something.

In general, scientists explained this by the fact that some users do not have a sense of responsibility for someone else's property - they rented and okay. Someone else will repair in case of something, or maybe they will not find out about such hooliganism at all.

ПЕШЕХОД: я должен быть аккуратен,
чтобы меня не сбила машина.

Водитель: я должен быть аккуратен,
чтобы никого не сбить.

Самокатчик:



Voucher

This is relevant for Russia. Judging by the latest statements, the causes of incidents are all the same: inattention, non-compliance with traffic rules and riding on a scooter together.

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But there is a reason independent of drivers - a bad road surface.

To make the accidents less, various measures were taken: for example, all rental scooters in Russia began to ride more slowly - now the limit in speed is now up to 20-25 kilometers per hour.

And now they plan to introduce a complex based on artificial intelligence (where without it), which will help reduce the number of accidents. So the company NTECHLAB decided to do.



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Voice Assistant in Self -Cat

AI will identify unscrupulous users: those who cross the pedestrian crossing on the scooter ride together on one sim or pares incorrectly.

It will look like this: artificial intelligence monitors the scooter, and if he recognizes violations, then the voice assistant warns that the user violates the rules.

Many users of scooters do not comply with traffic rules at pedestrian crossings

where you need to dismount. Or move on a scooter together, including with a child. Our solution is aimed at reducing the number of such gross violations and reducing the number of incidents. Moreover, we modify the functionality that will allow the authorities to quickly transmit information about violators directly to kikserving services. They, in turn, will be able to work with users in a timely manner.



Alexey Palamarchik
General Director of NTECHLAB

The idea, of course, is good, but whether users will obey is a question. Still, some people, although they understand that they are doing something wrong, but still continue to violate the rules.

In addition, scientists decided to improve the scooters themselves. Researchers of the University of Lati have created a prototype of an automated system, which fixes the obstacles and uneven roads.



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Road control system

The new system consists of long -range meters, a camera, an ultrasound sensor, and the algorithms that analyze whether there is an obstacle or not. The device is small – weighs only 360 grams, so it can simply be installed in the steering wheel.

The system reacts quickly enough: it collects information at a speed of 0.7 seconds. So, the scooter can be slowed in time without a sharp blow to the brakes.

In addition, the energy module eats a little, the scooter's battery is quite enough for him. Even during the duration of the work, Sim will not affect much.

In the future, they plan to optimize and run the development into mass production. Agree, it will be much more comfortable to ride with such a device, especially beginners. Even if you look at the irregularity, you can't fly off the scooter.



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The best way to protect yourself

However, whatever new devices for SIM, in particular for scooters, whatever research is carried out, the responsibility for safety lies with the users themselves.

As, for example, with cars: if the drivers had not driven, did not get drunk drunk, and so on, the number of accidents would be reduced. And there are 100 thousand a year for a minute.

It is important to think first of all about your safety: putting on protective equipment - helmet, knee pads, and be attentive on the roads.

Still, even a regular self-roll trip can end deplorable. Follow the safety rules and be careful!