

OKC company gets ‘smart’ on tractor-trailers

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Drōv Technologies Chief Technology Officer Peter Jankowski, left, and CEO Lisa Mullen, right, explain the AirBoxOne technology. COURTESY PHOTO/ DRŌV TECHNOLOGIES

OKLAHOMA CITY – What is the point of having a smart, technology-based truck if the trailer is still lagging behind?

That was the question that Oklahoma City-based Drōv Technologies asked, leading to the development of a new product that makes a tractor-trailer just as connected and technologically advanced as the truck itself.

With the introduction of this new technology, the company is hoping to revolutionize the trucking industry. Drōv's AirBoxOne, a comprehensive trailer monitoring system that beams diagnostics to the driver and home office in real time, will be the first monitoring system of its kind on the market.

Going beyond tire pressure monitoring features, AirBoxOne features integrated tire management that inflates and deflates based on load. Additional sensors and cargo cameras detect everything from wheel end temperature and load weight to extreme G-forces and cargo security breaches.

Alerts and notifications are wirelessly communicated to the cab and Cloud, giving truck drivers and the trucking industry freedom from manual checks that are currently the standard in the business.

Now with proof-of-concept wrapping up, Drōv is ready to launch the product into the trucking world.

When Drōv and investors purchased AirGo Systems in 2011, the company had a tire inflation technology product for large tractor-trailers. Four years ago, Drōv took the opportunity to expand that technology into something much more comprehensive.

“We took a look at what was going on in the industry, which was a lot of technology being poured into the truck, but really nothing was being done on the trailer,” said Lisa Mullen, CEO of Drōv Technologies. But if you’re pulling a dumb trailer, your smart truck isn’t smart. We took that opportunity to really expand into a technology company.

At first, Drōv had the concept of inflating and deflating the tires based on the load on the vehicle. When Drōv hired Peter Jankowski as its chief technology officer, he saw an opportunity to connect not only the tire sensors, but everything else possible on a truck trailer.

“When Pete came on board, we started thinking, ‘Well, if you’re going to inflate and deflate electronically, let’s connect to the rest of the sensors that are available in the market, or that would make this a smart truck,” Mullen said. “So the goal is that this trailer becomes smart, and together (with the cab), this connected vehicle is the safest and smartest thing out there.”

AirBoxOne connects other smart components on the trailer and aggregates the information into one place, which can be accessed through software or a mobile app.

Many of the components also connect via Bluetooth and the pack itself is powered by solar panels that are attached to the trailer.

The AirBoxOne partners up with another Drōv product called a Vehicle Health Display, which allows vehicle mechanics and drivers to access the data and the status of the vehicle trailer.

“Maintenance will know if brakes or the tires have an issue. This is an added feature we’ve added to the product,” Mullen said. “That’s the end goal, that all of this is communicating together.”

Basically, she said, all the information on the truck trailer would be easily available in one place.

“We are concluding proof of concept, and we will be ready for 2021 builds,” Mullen said. “Honestly, a lot of the checks have been manual. Someone would manually go check the tire pressure. They would open the door to see if there was cargo left in the trailer. In the last four years, there are people coming into the trailer space with sensors, and the industry is inundated with systems trying to be smart. What Drōv has is the opportunity to be the aggregator of these companies and these sensors.”

Bob Davis, vice president of business development for Drōv, said the technology goes hand-in-hand with the future of trucking.

“It’s really a self-diagnosing trailer,” said Davis. “Everything that you should check, this will tell you what’s wrong and what needs maintenance.”

Admittedly, the truck trailer isn’t the sexy part of the trucking technology, Mullen said. “The trailer, as many people will tell you in the industry, is sort of the forgotten asset. It’s not as costly as the truck and is probably the bottom of the food chain in terms of trucking and transportation,” Mullen said. “But that’s where we saw the opportunity because if the truck is smart and the trailer is not, then your connected vehicle isn’t smart at all.”

Already, Drōv’s product has been approved by four national and regional suppliers of trailers, offering customizable configurations for OEM off-the-line and aftermarket suppliers, fully integrated components, user-friendly software and other features.

“What’s really exciting is that this is just the beginning as we move towards autonomous trucking,” Mullen said. “It’s future-proof.”