

## "The car is Doing its own Thing" - How Motional Offers Free Robotaxi Rides and Deliveries - Akshay Jaising

Lynn Walford - Dec 15 2022



Motional autonomous vehicles give free rides in Las Vegas, Nevada, and deliver in Santa Monica, California. Auto Futures talked to Akshay Jaising, Vice President of Commercialization, Motional. He detailed how Motional works and plans for fully driverless rides in the future.

Motional is a joint venture with Aptiv and Hyundai for autonomous ride-hailing and delivery. The company has partnerships with Lyft, Uber Eats, Uber and Via. The Lyft self-driving Motional service in Las Vegas launched in 2018.

Jaising says that driving autonomously on city streets is hard.

"But that is how you can have the maximum impact. That is why we are focused on it. So, if you follow the industry, you know that a lot of companies initially were more aggressive in their timelines. They realized that it is a hard technical problem to solve. That resulted in revising their timelines. Having said that - we are making really good progress as a company. We already have a live service where we can offer robotaxis."

The company runs a route on the La Vegas Strip where it noticed driver errors.

"In Las Vegas, people do not signal. They just cut in. Only 30% of the time do they actually give a turn signal," explains Jaising.

Besides bad driving, cars have to deal with jaywalking and obstacles on city streets.

"Those are the kinds of challenges we have to prepare the car to deal with. That is the technical hurdle we are working towards and what we made good progress with. We still have vehicle operators in the car today. But their job is to watch the vehicle, not to intervene. Right now, it is a free service. It is a pilot and pretty seamless. So if you hail a ride on the Strip, you could get matched to an autonomous vehicle through the app."

For unexpected 'black swan' edge cases, Motional provides remote teleoperation to help.

There are obviously going to be edge cases. So, Motional has Remote Vehicle Assistance (RVA). If the car encounters an unforeseen instance, it will likely be confused. It would safely pull to the side and call the back end. Then RVA will chart a path around the obstacles so the car can continue going, says Jaising.

"It is a learning curve. As the car gets smarter, it will be able to handle some of those obstacles."



### How Do Motional Autonomous Rides Work?

In November, Motional announced that it will offer ride-hailing robotaxis in Los Angeles with Lyft.

"We have been in LA for a long time. We have been testing since 2016. We expanded our operating footprint in 2021. Our facilities are in Venice. Vehicles operate in Santa Monica, doing deliveries for Uber Eats," says Jaising.

Motional is trying to figure out where they will launch services in Los Angeles and have not determined what it is going to look like, says Jaising.

Early in December, Motional announced ride-hailing through Uber in Las Vegas. Motional services operate through third-party apps such as Uber, Uber Eats or Lyft.

"The way we interact with our passengers is through Lyft and Uber. So we are not going directly to the passenger with our own interface."

Hyundai IONIQ5 EVs are outfitted with hardware and software for autonomous driving.

"One of our competitive advantages is a joint venture with Hyundai and Aptiv. Our engineers work closely with them to integrate the sensor suite for a more seamless, cohesive design. So if you look closely, you will see that dot matrix pattern even on our sensor suite on the top, so it blends in," he says.

Jaising says currently, the driving decision-making on the road is done in the car. There is compute in the cloud for simulation for other purposes. The vehicle has thirty sensors, including cameras.

"Working with Hyundai, we have been able to integrate interior cameras for in-vehicle monitoring. We have call buttons if you ever need to reach customer assistance."

Motional cars have an exterior call button on the side door.

Autonomous rides are made through either Lyft or Uber apps. The app user is alerted that the drive will be driven autonomously. During the ride, screens in the vehicle show the route.

Jaising describes the ride, "I think most people who ride in our autonomous vehicles, including us, initially are amazed. The steering is turning on its own. The car is doing its own thing. But in a couple of minutes, it feels very mundane and boring. And boring is good because that means the car is doing its job. You do not realize you are sitting in an autonomous car."



### How do Motional Autonomous Deliveries Work?

Jaising says for autonomous deliveries customers order from merchants through the UberEats app. The app shows an autonomous car delivering the order. The merchant places the order inside the car. When the car shows up, the customer is notified to go to the curb and pick it up.

"The customer uses the app to open the door," says Jaising.

The vehicles have a special compartment to hold the delivery goods.

"I think the good news is, you don't have to tip a driverless car, so the cost is lower," he adds.



### Local Management to Fully Driverless

Deployments are managed by Motional, locally. The ultimate goal is for services to be fully driverless.

"We have to prove our safety case as we go through a phased process. We start with drivers. We map the territory and launch the service. Then we go to driverless testing. Then we go to driverless commercial operations," says Jaising.

He predicts, "We are in this to help solve problems. Our purpose is to have safer roads. We believe this technology is transformative. Driving is a mundane task, and you can train a computer to do it really well. And once they can, then we have an opportunity to make a real impact."

### Popular Categories

#### Autonomous Driving

Connectivity Akshay Jaising Motional Uber

#### Startups

#### Business

#### Electrification

#### Tech Innovation



### The Latest

#### "The Entire Business is Built on Trust & People" - How OX Delivers is Jumpstarting Logistics for Emerging Markets - MD, Simon Davis

Rahul Dutta Roy - May 18 2023

<https://www.autofuture:> Copy  
OX Delivers is revolutionising the logistics space in Africa by adding electric mobility into the mix. Founded in the thick of the Covid-19 pandemic in 2020, the company's proprietary software,...

#### BMW Announces Plans to Produce NEUE KLASSE EVs in China From 2026

Adrian Smith - May 18 2023

Following the market launch in 2025, BMW Group says models of the next vehicle generation, called NEUE KLASSE, will also be produced from 2026 onwards in Shenyang, China. The announcement was made...

#### Suzuki, Daihatsu & Toyota to Develop Mini-Commercial Van Electric Vehicles

Staff Writer - May 18 2023

Suzuki Motor Corporation, Daihatsu Motor Co., Ltd., and Toyota Motor Corporation have announced plans to develop prototype mini-commercial van electric vehicles (BEVs) equipped with a jointly...