

WAYMO / AUTONOMOUS CARS / TRANSPOR

Waymo's new robotaxi will feature fewer sensors to help lower costs / The company says its sixth-generation hardware is 'optimized for costs' but makes no mention of possible tariffs against Chinese EVs.

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Waymo's sixth-gen robotaxi is already being tested on public roads. Image: Waymo

Waymo published a blog post today previewing its new sixth-generation robotaxi, which is an electric minivan manufactured by the Chinese automaker Zeekr.

In the post, Waymo VP of engineering Satish Jeyachandran touts the new robotaxi as more high tech than past iterations, while also featuring fewer sensors to help reduce costs for the Alphabet-owned company. And within its high-powered computer, it contains all the learnings of the previous five generations of Waymo's autonomous vehicles, meaning it won't have to do as much real-world testing as past models before it can be rolled out to the public.

But looming over Waymo's assertion that its new robotaxi will be cheaper to produce is the possibility that it could also be subject to costly new tariffs against Chinese-made electric vehicles. Earlier this year, the Biden administration said it would quadruple tariffs on EVs from China to 100 percent, from the current 25 percent, as a way to "protect American workers and American companies from China's unfair trade practices."

The company is reducing costs in its autonomy stack

The tariffs aren't mentioned in Jeyachandran's update about its new robotaxis, nor is Zeekr as the vehicle's manufacturer. (To be sure, Waymo isn't concealing the

vehicle's origins; it was featured prominently in past announcements about the new robotaxi.) The new levies are expected to go into effect later this year, and Waymo could apply for an exemption if it chooses. Last week, a spokesperson told me that the company was keeping a close eye on the tariffs situation but had nothing more to add.

To be sure, the cost savings discussed in Jeyachandran's post are from the autonomy system and don't take into account any macroeconomic conditions. In that area, there are a number of other new features in the new vehicle worth highlighting.

Waymo says the sixth-gen robotaxi will feature a streamlined sensor suite of "16 cameras, 5 lidar, 6 radar, and an array of external audio receivers (EARs)." These sensors will help provide "overlapping fields of view, all around the vehicle, up to 500 meters away, day and night, and in a range of weather conditions." That's the equivalent of over five football fields of visible range.

Waymo's use of multiple sensors is important for redundancy, in which multiple sensors and cameras can ensure the vehicle can continue to detect and respond to its surroundings if something fails. "Redundancies are essential in an autonomous driving system to provide safe backup functions for assured reliability and for unexpected weather," Jeyachandran writes.

Waymo's use of multiple sensors is important for redundancy

Meanwhile, other companies are trying to cut costs by eliminating or downplaying certain sensors — mostly lidar. Tesla famously eliminated radar and ultrasonic sensors in favor of a camera-only system for its Full Self-Driving driver-assist system (which also famously isn't a real self-driving system). Motional, which also aims to launch a robotaxi service, recently outlined its plans to give radar a more prominent role to account for the high cost of lidar sensors.

Lowering costs is going to be increasingly important for robotaxi companies as they look to scale up and expand into new markets. Alphabet doesn't break out Waymo's costs in its earnings report, but its "Other Bets" unit, which includes the robotaxi company, brought in \$365 million in revenue in the second quarter, up from \$285 million a year ago. But the unit's losses widened to \$1.13 billion from \$813 million in the year-earlier period. Alphabet recently said it would commit an additional \$5 billion to Waymo to help it cover costs as it eyes its next phase of growth.

Jeyachandran doesn't include any details about where and when the new sixth-gen robotaxis will first appear. Waymo currently operates in Phoenix, San Francisco, and Los Angeles, with plans to launch commercial service in Austin, Texas. The company has been manually testing the Zeekr-made minivans on public roads, with the goal of adding them to its commercial fleet sometime soon. Hopefully, the company can clear up the uncertainty surrounding the vehicle's import status before then.

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