



THE RIPPLE EFFECT

Stories of purpose and lasting impact

Detroit gets moving on autonomous vehicles

The Accessibili-D autonomous vehicle system connects seniors and people with disabilities to well-being resources.

NO OTHER CITY **MOVES** QUITE **LIKE DETROIT.**

THE SITUATION

A little after 11 p.m. on March 6, 1896, Charles Brady King took a hard right turn onto Woodward Ave in the first gas-powered vehicle to drive the streets of Detroit. The roofless automobile left him bare to the late-winter wind and the unbelieving eyes of pedestrians as he drove the future right through the heart of the city. The momentum of that moment (metaphorically more so than literally: the automobile just barely reached 5 mph)¹ made him confident enough to spill a far-fetched idea to The Detroit Journal. "I am convinced," King said. "[Automobiles] will in time supersede the horse."²

The far-fetched became the ubiquitous as Detroit went all in on the automobile, shaping the way the city's infrastructure has developed over the decades, with effects that continue to reverberate today. Despite a bus system and a train line that goes up and down Woodward Ave (where King took that first late-night drive), wide tracts of Metro Detroit are inaccessible without a car. The city has made strides in improving public transportation and expanding mobility options in recent years, but gaps in access to transportation remain. These gaps can disproportionately impact seniors and people with disabilities who are unable to drive, limiting their access to health care and opportunities to stay connected within their community.

But with automotive innovation in its DNA, Detroit's Office of Mobility Innovation (OMI) wondered: If people could welcome the transition to "horseless carriages," what about driverless cars? Could autonomous vehicles (AVs) help address public health needs and improve the well-being of seniors and people with disabilities? When the US Department of Transportation (USDOT) issued the Autonomous Driving System Demonstrate Grant in 2018, OMI knew its opportunity had come.



THE SOLVE

OMI gathered university research centers, automakers, engineering firms, and Deloitte to form the Michigan Mobility Collaborative (MMC). Together, the diverse group of collaborators proposed the Accessibili-D program: a fleet of autonomous vehicles built in Ann Arbor that would serve as a scheduled and on-demand transportation service connecting seniors and people with disabilities to health care, city parks, grocery stores, and more. When USDOT selected MMC as one of seven grant recipients (from a field of more than 70 applicants), MMC hit the ground running.

Deloitte served as program manager, coordinating grant deliverables and facilitating collaboration across MMC. The Deloitte team's deep automotive sector experience, vision of the future of the industry, and ecosystem of technology alliance partners—cornerstones of Deloitte [IndustryAdvantage™](#)—informed the approach. MMC carefully evaluated potential autonomous vehicle providers before selecting May Mobility, which delivers safe and accessible AV services across the United States and Japan using patented Multi-Policy Decision Making (MPDM) technology that analyzes thousands of possible safety-related scenarios every second. After months of rigorous testing at the University of Michigan's Mcity and the American Center for Mobility's mock-up of Detroit city streets, the fleet moved to live road testing.

Just one minute on the road can generate around 150 parameters of raw data—including velocity, location, and unstructured objects such as cyclists, cones, and signs—

picked up by the autonomous vehicles' cameras. Deloitte and the University of Michigan built a data platform to ingest all the data streaming from the fleet; timestamp, transform, and combine it with other relevant datasets, such as weather, to add more nuance; and deliver insights in an interface that allows users to query the data based on their individual role and need. (For example: "I'm an engineer, and I want to access data about near-miss or hard-braking events on rainy days.") The data platform helps the city, researchers, and engineers translate complex AV data to make continuous, informed improvements to optimize safety and rider experience.

MMC charted the service's route, engaging in extensive conversations with residents to form a nuanced, community-directed understanding of public health and transportation equity needs. The route grew to include not just clinics and hospitals, but dental services, outdoor fitness spaces, grocery stores, and spaces for socializing as community members helped expand the definition of what it means to live a healthy life.

On June 20, 2024, the Accessibili-D pilot launched. Three autonomous vehicles provided by May Mobility, including two wheelchair-accessible vehicles, crisscrossed an 11-square mile section of Detroit, offering 68 different stops on weekdays and weekends for riders who booked trips via a mobile app or telephone number. Once again, the future of mobility shifted right there in Detroit.

CUTTING-EDGE TECHNOLOGY MEETS A DIRECT FOCUS ON COMMUNITY NEEDS.

THE IMPACT

By the end of July, the maybe-just-a-little-far-fetched felt like wide-open possibility. The fleet drove 1,313 miles, connecting more than 100 participants to health care resources and loved ones, with zero safety incidents and a 100% rider satisfaction rate. Since then, May Mobility has expanded the service to include 110 stops and increased operational hours in response to the needs of the Accessibili-D riders. As of the end of 2024, more than 70% of the riders have taken more than one trip and the service has achieved an 89% on-time rating.

Three years of collaboration between federal, state, and city governments; universities; Deloitte; commercial automotive companies; and local Detroit merchants and health care providers demonstrated the capabilities and value of AVs and created a playbook for deploying similar systems in other cities and communities. In fact, Deloitte and May Mobility have combined efforts to make their data platform and AV services adaptable for other cities looking to tap into Deloitte's IndustryAdvantage framework to replicate or expand on Detroit's program.

OMI continues to explore how Accessibili-D could complement Detroit's other modes of transit and to collect data to prioritize safety and accessibility, all while engaging the community to promote even more communication and trust. The descendants of that first slow, rumbling automobile have taken turns no one would have predicted 100 years ago, but the same spirit of innovation drives the city forward toward a future where people have new transportation options to help them live healthier, more connected lives.

A woman with blonde hair, wearing a white knit beanie, a light orange cardigan over a white top, and dark pants, is seated in a wheelchair. She is positioned in the driver's seat of a dark-colored car, which has its driver-side door open. She is looking out the window with a smile. The background is slightly blurred, showing an outdoor setting.

BUCKLE UP: AUTONOMOUS VEHICLES COULD CHANGE
THE FUTURE OF ACCESSIBLE TRANSPORTATION.

LET'S CONNECT.

Do these challenges sound familiar?

Learn more about Deloitte *IndustryAdvantage™*

Discover how Deloitte is helping accelerate the development of autonomous vehicles

Learn more about the Michigan Mobility Collaborative and May Mobility



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ENDNOTES

1. Detroit Historical Society, "King, Charles Brady," *Encyclopedia of Detroit*, <https://detroithistorical.org/learn/encyclopedia-of-detroit/king-charles-brady>, accessed April 10, 2025.
2. Matt Wolfe, "Detroit's first test drive," *Automotive Hall of Fame*, March 22, 2017, <https://www.automotivehalloffame.org/detroits-first-test-drive/>, accessed April 10, 2025.



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