

Toyota Mirai Sets GUINNESS WORLD RECORDS™ Title with 845 Mile Zero Emission Journey

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LOS ANGELES (October 8, 2021) –The 2021 Toyota Mirai has officially set the GUINNESS WORLD RECORDS title for the longest distance by a hydrogen fuel cell electric vehicle without refueling. The Mirai achieved an unprecedented 845 miles driven on a single, five-minute complete fill of hydrogen during a roundtrip tour of Southern California as it set the record. Recently selected by Ward’s Automotive as a [10Best Engine & Propulsion Systems](#) winner, the Toyota Mirai’s record sets a new distance milestone for zero emission vehicles.

“In 2016, the Toyota Mirai was the first production fuel cell electric vehicle available for retail sale in North America, and now the next generation Mirai is setting distance records,” said Bob Carter, executive vice president, Toyota Motor North America. “We are proud to be leaders of this exciting technology, which is just one of a growing lineup of zero emission vehicles in our portfolio.”

The official record attempt was closely monitored by Guinness World Records, adhering to its strict rules and documentation procedures. On its efficiency-focused August 23 and 24, 2021 journey, the Mirai logged an

impressive 152 MPGe with water as its only emission. GUINNESS WORLD RECORDS adjudicator, Michael Empric, validated the Mirai's tank with a seal at both the beginning and end of the journey.

Driven by professional hypermiler, Wayne Gerdes and co-piloted by Bob Winger, the two-day trip began on Monday, August 23, 2021, at the Toyota Technical Center (TTC) in Gardena, California, home of Toyota's fuel cell development group. The duo traveled south to San Ysidro and then north to Santa Barbara cruising through Santa Monica and Malibu beach along the Pacific Coast Highway. They returned to TTC that evening and logged 473 miles with only two driver swaps that day.

The next day, August 24, 2021, consisted of more local driving loops, where they pushed through 372 more miles of morning and afternoon rush hour traffic on the San Diego freeway between Los Angeles and Orange County until the Mirai had no more hydrogen left and coasted into TTC with a grand total of 845 miles driven, as witnessed by Empric.



Final mileage total as recorded by GPS



Driver Wayne Gerdes and GUINNESS WORLD RECORDS adjudicator Michael Empric inspect sealed hydrogen fuel opening on Mirai

“As a GUINNESS WORLD RECORDS adjudicator for 10 years, I’ve had the opportunity to witness incredible attempts, including several distance-related feats,” said Empric. “The Toyota Mirai’s journey without the need to refuel showcases the power of fuel cell electric technology. This technology and the design ingenuity by the team at Toyota led to a history-making moment.”

By the end of the trip, the Mirai consumed a total of 5.65kg of hydrogen and passed a total of 12 hydrogen stations along the drive routes without refueling. The Mirai was driven mainly during rush hour traffic in temperatures between 65 to 83 degrees Fahrenheit. It emitted zero pounds of CO₂, where a standard internal combustion engine vehicle would have emitted about 664 lbs. of CO₂ over the same distance.



Bob Carter, Executive Vice President Toyota Motor North America with official GUINNESS WORLD RECORDS certificate and Mirai used in record setting drive

The landmark results were achieved by drivers skilled in hypermiling techniques that optimized the Mirai's vehicle performance under specific weather and driving conditions. They also leveraged some basic fuel-efficient driving tips that any driver can practice.

MAINTENANCE & PREPARATION:

- Keep up on all scheduled maintenance. A poorly tuned engine will burn more fuel, which can impact fuel economy. (FUN FACT: The 2021 Mirai comes with extended [ToyotaCare](#) coverage – a scheduled maintenance plan for 3 years or 35,000 miles!)
- Ensure proper wheel alignment.
- Check tire pressure, under-inflated tires can lower fuel economy.
- Remove cargo or cargo racks to reduce weight.

DRIVING TECHNIQUES:

- Avoid quick acceleration or heavy braking.
- Avoid driving at higher speeds.

- Minimize running mechanical and electrical accessories i.e. air conditioner. (FUN FACT: The 2021 Mirai has Drive Mode Select, which offers an ECO mode to prioritize efficiency by optimizing air conditioning operation. Additionally, as on Toyota Hybrids, Predictive Efficient Drive can learn repeatedly traveled routes to optimize charging and discharging of the battery to help maximize fuel economy and driving range.)