Development of Lunar Cruiser

We are open to discussing new business bridging the automobile and space industries.

Toyota plans to provide a pressurized rover Lunar Cruiser for the Artemis project.
Toyota has been contracted by JAXA to carry out conceptual design for a pressurized lunar rover.

All of Toyota's production vehicles, most notably the Land Cruiser, are designed to come back home safely.
The Lunar Cruiser is no exception.

Taking part in developing a vehicle such as a pressurized rover, which must bear the harsh environment, is an engineer's lifelong dream.

Toyota' s goal in engaging space with development is to contribute to creating technology essential to the SDGs and a Carbon Neutral Society.
We also believe that contribution to lunar society development can help make a better life here on earth.

Here are the key technologies for our development, many of which are based on the same technologies of production vehicles.

- Fuel Cell
  Compact stacks, using pure oxygen
- Autonomous Driving
  Self localization, Risk grid visualization
- Powertrain Control
  Independent control, Crawl Control
- Vehicle Dynamics Control
  Anti-rollover control

More on this website

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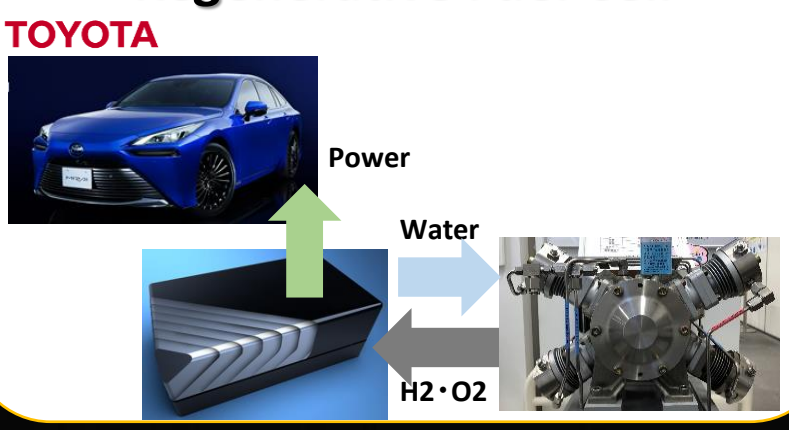
Fuel Cell

Regenerative Fuel Cell



The fuel cell system generates electricity
via a chemical reaction between hydrogen and oxygen generated by water electrolysis which is powered by a solar panel.
The water generated through power generation is recirculated to the system for electrolysis.

Autonomous Driving

Autonomous

Autonomous driving first localizes the vehicle and creates a risk grid from surrounding objects.
This also calculates a potential path which enables safe and efficient travel.

Schedule