

Small Pressurized Rover Prototype

Why go to the Moon?

To make better cities and society

- The technology we develop for the moon will make life better on Earth

To expand the sphere of human activity

- The moon will serve as a gateway to Mars



Toyota's vision

We strive to produce happiness for all.



Creating a mobility society for the future

- We are developing new forms of transportation and pursuing new ways of connecting technology and people.



Moving people safely and responsibly

- Safety is a top priority



Continuous innovation

- We seek to continuously innovate and create new technologies, staying ahead of the times



Toyota can provide:

[movie](#)

Safe driving technologies on the lunar surface

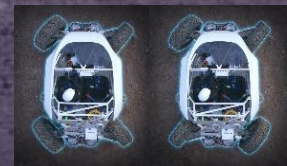
A rover capable of traversing the tough lunar environment.

- All-Wheel Traction Control
- All-Metal Elastic Wheels (by [Bridgestone](#))

Better energy consumption

Rover designed to accomplish its mission using limited energy resources

- All-Wheel-Traction: Predicts road conditions and controls optimum torque
- Steering Control: The steering system tracks the front wheel ruts to keep the rear wheels on the same path



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Small Pressurized Rover

Leverage Toyota's expertise in reliability, durability, and driving performance
Maintain safety and comfort for astronauts



Why make this prototype?



They share the same technology, despite their unique looks

- Electric off-road vehicle
- Motors on each wheel
- Steering actuators on each wheel
- Autonomous Driving (planned)



Toyota provides:

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SPECIFICATION

Item	Small Pressurized Rover Prototype 	Small Pressurized Rover 	Ref) Apollo LRV 
Length X Width X Height [mm]	3460 X 2175 X 1865	6000 X 5200 X 3800	3100 X 2060 X 1140
Wheelbase [mm]	2500	4600	2290
Tread [mm]	1830	4400	1830
Wheels	4	6	4
Astronauts	2	2	2
Energy	Battery	Fuel cell + Solar array	Battery
Gross vehicle weight	4.49Klbs (1.65t)	28Klbs (10.3t)	2.27Klbs (0.835t)
Tire dia. X Width [mm]	Φ960 X 345	Φ1500 X 600	Φ820 X 230
Tire material	Metal	Metal	Metal