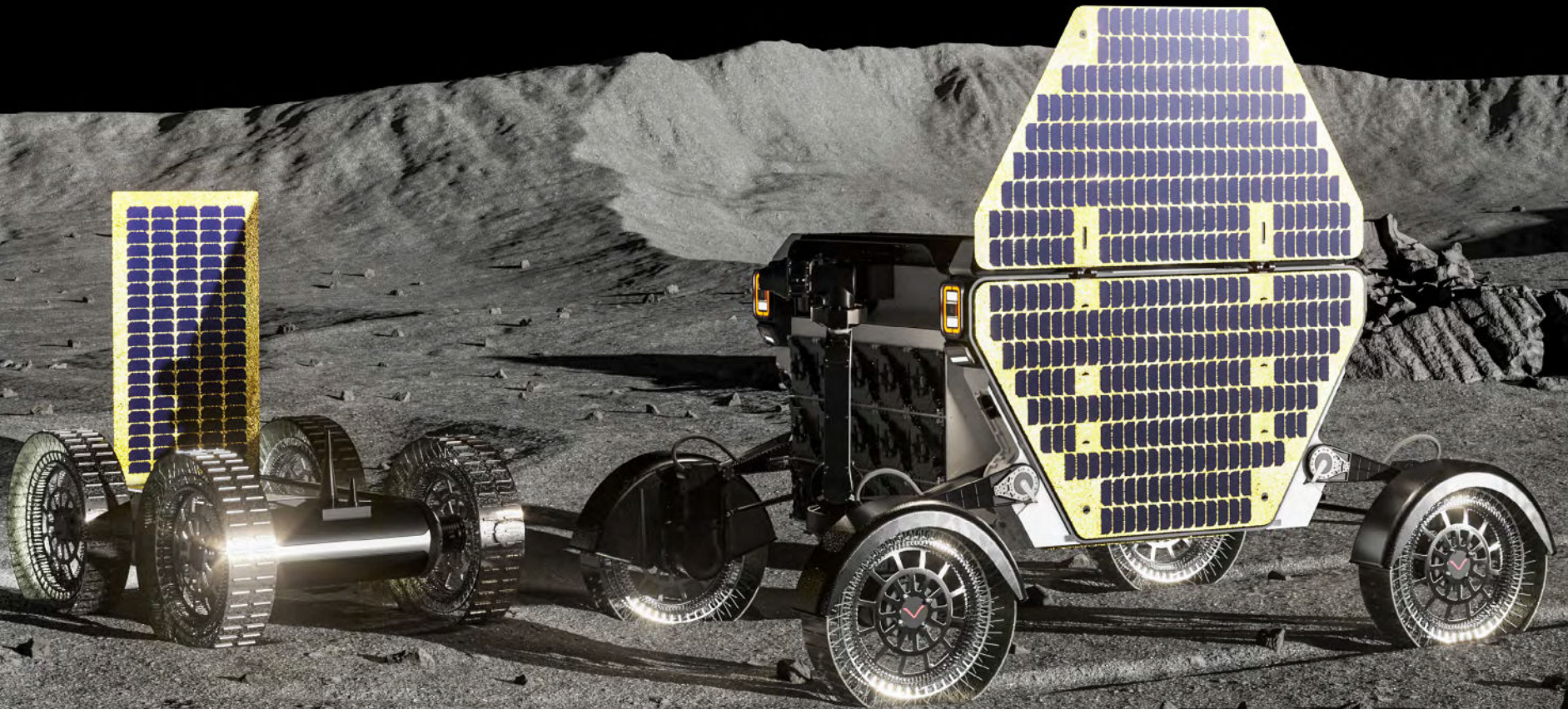


# VENTURI SPACE



MEDIA KIT



“

WE'RE HARNESSING OUR EXPERTISE FOR SPACE RESEARCH,  
WHERE EXCELLENCE IS SIMPLY THE STANDARD.

| Gildo Pastor, President of Venturi Space and Venturi |

”





After two decades of innovation in terrestrial electric vehicles, Venturi's President Gildo Pastor has repositioned the firm in the space sector, aiming to forge new collaborations with NASA (and the ESA in a second phase).

The change of strategy ties in with NASA's Artemis programme that will see humanity return to the Moon in 2030, after the US space agency invited bids from contractors to design, manufacture, and operate a lunar terrain vehicle for transporting astronauts and equipment.

In 2024, NASA pre-selected the rover FLEX from the American company Venturi Astrolab, Inc. Its strategic partner, Venturi Space, is in charge of designing and manufacturing the wheels (in Switzerland), the batteries (in Monaco) and the battery management systems (in France).

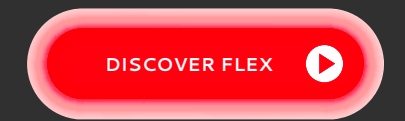


# FLEX

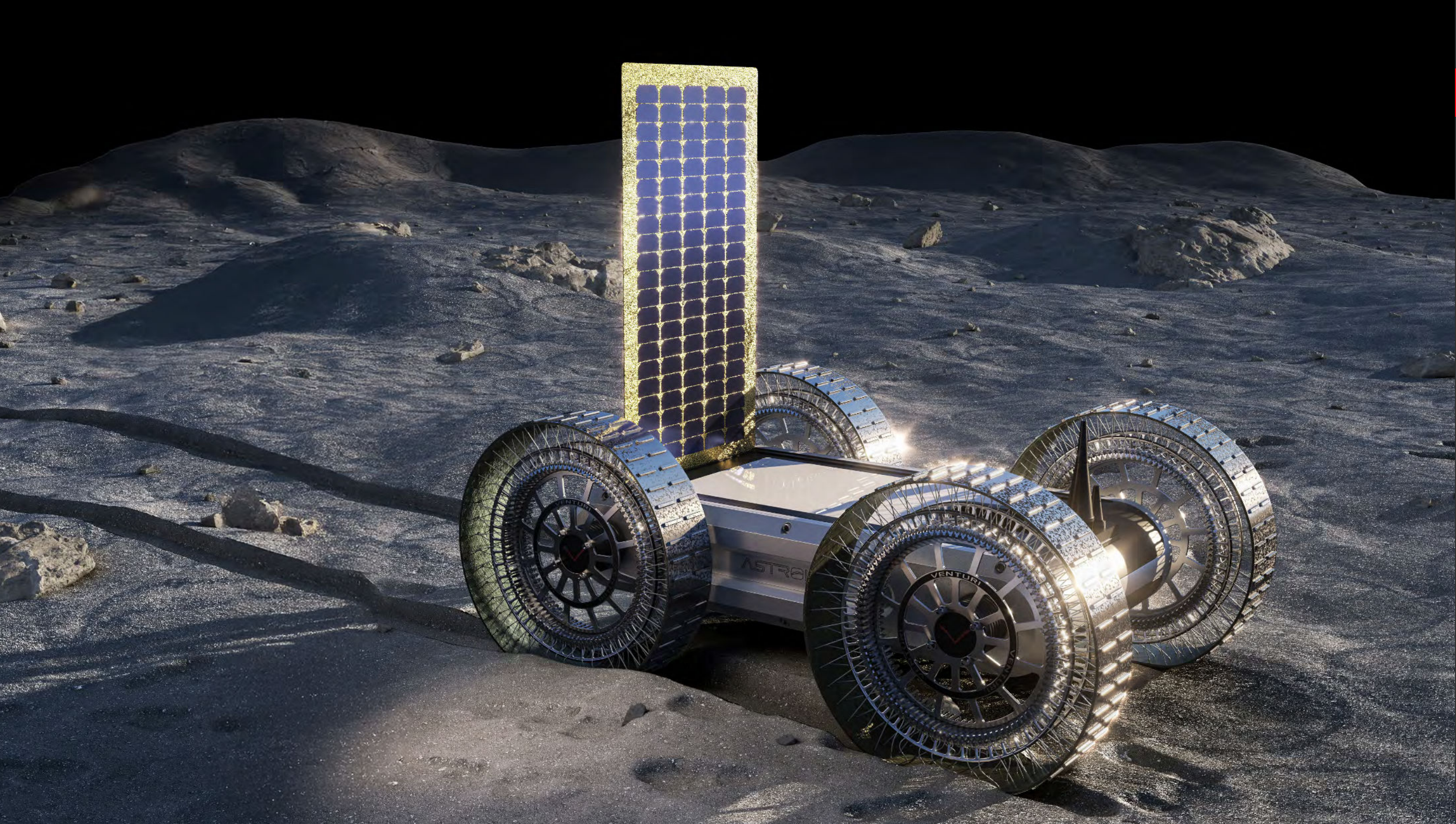
Mid-2027 with SpaceX

The astromobile, designed by Sacha Lakic, will be transported mid-2027 to the lunar South Pole by SpaceX. Controlled remotely from Earth, it will conduct scientific experiments and commercial activities.

In the meantime, NASA may select the vehicle. Consequently, from 2030 onwards, most of the rover's operational time would be devoted to missions for the US space agency. Outside these missions, the rover would carry on its activities for private purposes.







## FLIP

### FLIP (Flex Lunar Innovation Platform)

The FLIP platform's mission is to validate, in real conditions, the innovative technologies developed by Venturi Astrolab and Venturi Space for its big brother FLEX, which is expected to be launched mid-2027.

### Why design another rover?

FLIP, also designed by [Sacha Lakic](#), is also structured to respond to the growing number of institutional, businesses and scientific organizations in the U.S. and European markets, that are seeking access to the Moon for smaller payloads.

WATCH THE VIDEO 



# WHEELS

## WHY has Venturi reinvented the wheel?

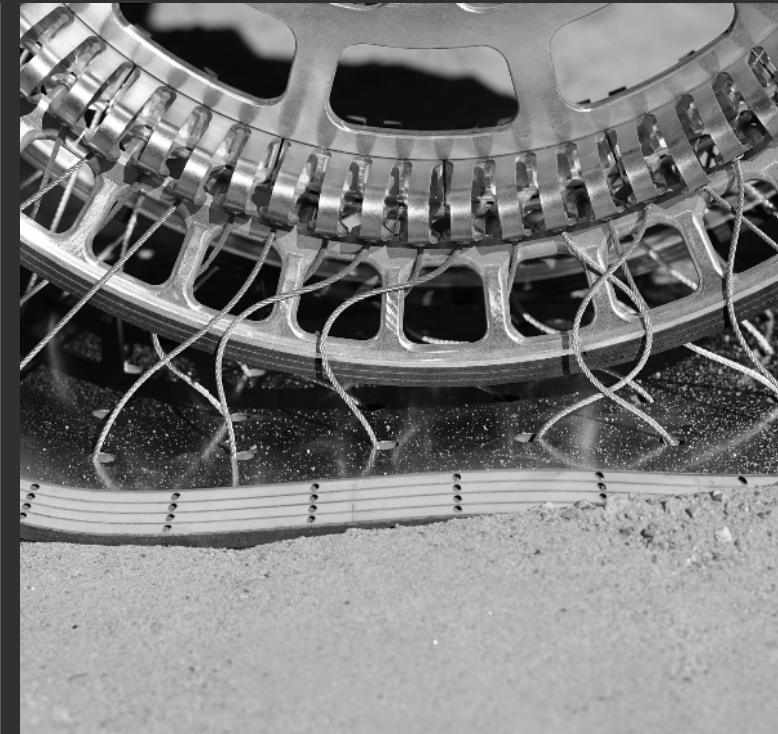
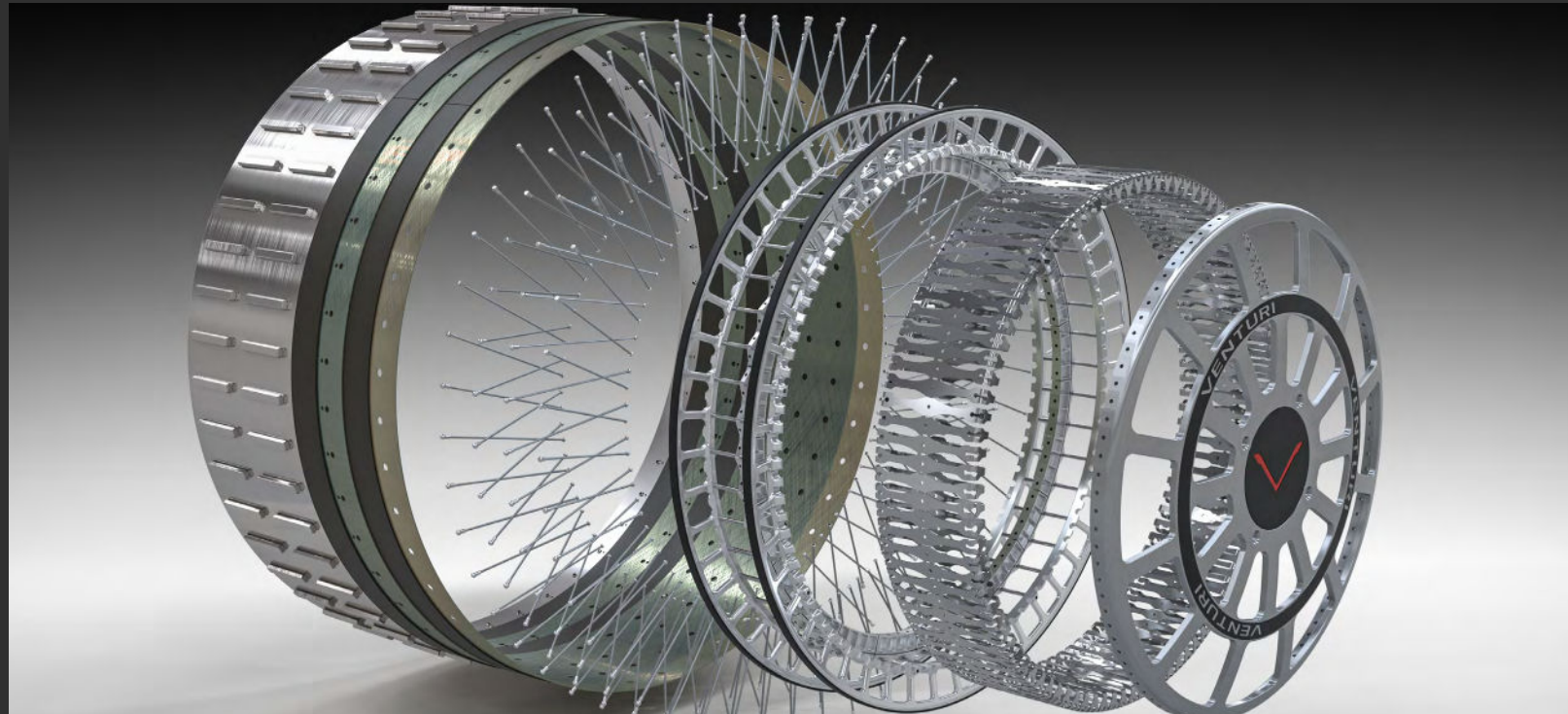
Advanced technology wheels exist, but the engineers, chemists and physicists at Venturi Space Switzerland have designed a unique, hyper-deformable lunar wheel. Why develop this breakthrough technology based on unique materials?

## TO ACCOMMODATE numerous significant challenges.

Solutions used on vehicles for the Apollo lunar mission and Curiosity Mars rover are not suitable, nor are terrestrial pneumatic tyres.

## HOW has Venturi reinvented the wheel?

To achieve this breakthrough, as important as the invention of the rubber, and later pneumatic rimmed tyre in the 19th century, the Swiss teams of Dr. Antonio Delfino developed a system that required the invention of new materials.



### WHEEL CHALLENGES AND CAPABILITIES

	FLEX 2026 > ...	Apollo LRV MISSIONS 1971 > 1972	Curiosity 2011 > ...	TERRESTRIAL TYRE
Works without atmosphere	✓	✓	✓	✗
Puncture proof	✓	✓	✓	✗
Radiation resistant	✓	✓	✓	✗
Supports a weight of 2T while travelling at 15 km/h	✓	✗	✗	✓
Works in temperatures up to -240 °C	✓	✗	✗	✗
Durable for over 5,000 km	✓	✗	✗	✓



# BATTERIES

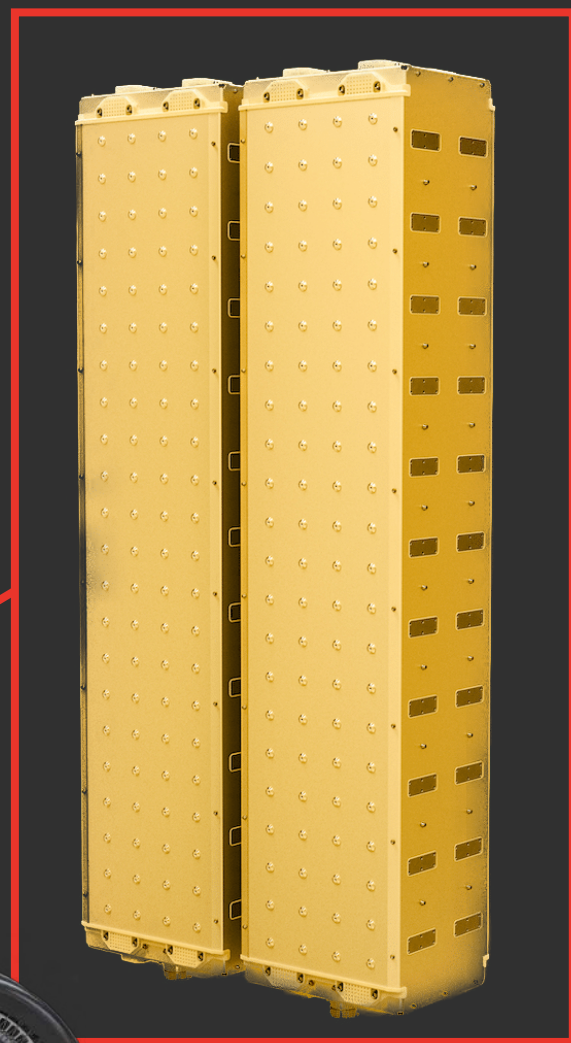
The four batteries must be able to withstand extreme temperatures and intense solar radiation at the lunar South Pole.

## NUMBER OF CELLS: 10,000

To power one rover, Venturi Space acquires and tests 10,000 cells and selects only the very best.

## ROBUST: -240°C

The battery packs are designed to function to their optimum capacity in an environment with temperatures as low as -240°C.



## SURGEPROTECTION: 4.2V

The cells are tested under overload beyond 4.2V, at which point the current interruption device is activated.

## EXTERNAL SHORT-CIRCUIT PROTECTION: 0V

In the event of an external short-circuit, the cell potential falls to 0V. The cells are tested to prevent any thermal runaway in the event of a short-circuit. An internal protection mechanism is activated, causing the cell voltage to drop to 0V.

## BATTERY PACKS: 4

Each rover is equipped with four battery packs: two on its left side, and two more on the right (fitted behind the solar panels).





# LUNAR MOBILITY BY VENTURI SPACE: EXCELLENCE TIMES INFINITY.

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