

Tec engineers want to “transform” donated vehicle into space robot



Have you ever imagined a **space vehicle with the ability to turn into a humanoid robot**? If you grew up in the eighties, the concept may seem more than familiar to you.

Just like in a Michael Bay film, [Tec](#) engineers are working on a prototype of a “rover” **capable of changing into humanoid form** that can carry out specific activities in **upcoming space missions**.

In order to achieve this objective, the “**Space Makers**” group, made up of students and teachers from the **School of Engineering and Sciences**(EIC), will be in charge of converting a 2020 [KIA](#) Forte the company has donated to the **Tec into a space robot**.



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Paloma González Robles, a Mechatronics professor at the [Tec's Monterrey campus](#), stated that the purpose of the project is to create a space vehicle capable of **fulfilling specific roles on a moon base.**

The **EIC** professor explained that the idea came from **incorporating space-based design and technology** into a [KIA](#) vehicle mounted at an exhibition in Korea, which **transforms into a humanoid.**

<https://www.youtube.com/watch?v=VvR7xudAVZE>

“The idea is for the robot to have several functions as part of a space mission thanks to its capacity for transportation, mobility, and cargo,” said the **Mechatronics Engineering professor.**

The project seeks to try out different **sensor technologies, artificial intelligence, and machine learning,** as well as robot autonomy.

“The idea is for the robot to have several functions as part of a space mission.”

The project **also has mentoring and outreach** from the [Mexican Space Agency](#), the [National Commission on Space Activities in Argentina](#), as well as **national and foreign universities and companies from the space industry.**



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The prototype designers are considering **incorporating a laboratory inside the robot**, so that it can perform collection tasks and store samples, as well as **measure ambient conditions.**

“We want to try out new technologies and some already existing technologies, to incorporate them into the design, adopting a multifunctional perspective for our robot,” González Robles said.

The [EIC](#) professor highlighted that the project **is at a “pre-phase” stage**, where the rover’s mission will be defined, then the industrial design phase will begin, and finally, **its manufacture.**

“We’re adopting a multifunctional perspective for our robot.”

She added that **up to 80 people are working** on the initiative, including students, Tec graduates, research professors, external company consultants, and space agencies.

The assembly work **will be carried out at the automotive laboratory** on the [Tec's Monterrey campus](#), and the robot is expected to be ready **by April 2022**.

The goal is for the prototype **to be considered for replication and put into operation** on the [Artemis Mission](#), which is **to send the first woman and the next man to the Moon** in 2024.

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