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Solutions for Innovation and Integration Science of Astrobiology

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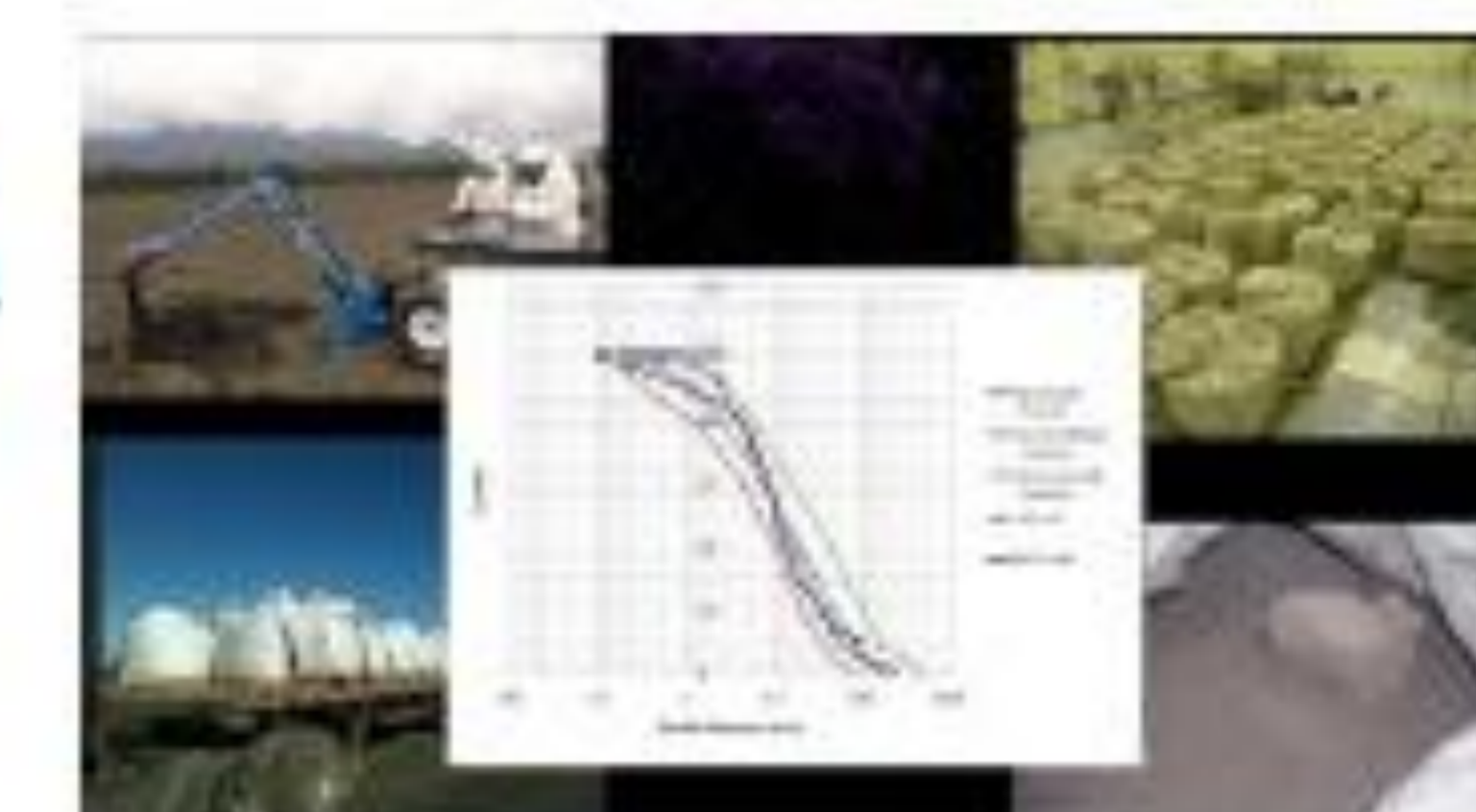
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In the development of techniques that seek to study extraterrestrial surfaces Colombia's Astrobiology Institute IAC Partnership de NAI NASA Astrobiology Institute in its program based on STEM education seeks to students who belong to the program to include the study of astrobiology, in all its dimensions, applying the different areas of science. The project Lunabotics Mining Competition (LMC), looking for students to understand the importance of space research program having as reference the address of the Exploration Systems Mission (ESMD) and the NASA Education program, this project is part of the main objective of the IAC, which is the search for elements that may constitute evidence of traces of extraterrestrial life using robotic prototypes



To carry out each process K12 System implemented and as such its implementation STEM, according to the routing of NASA Education. The educational program begins with the selection of students through the system (MER) Explorer Rover Mission. The IAC in its education program, implemented under this system, the construction and development of prototypes that seek to solve new challenges posed by the space race, one of these challenges is the LMC in which the general purpose is the removal of the regolith which is a material composed of rocks, mineral grains produced by meteorite impacts on the lunar surface.



It is well known in the world of robotics development, thanks to globalization, countries that previously did not participate in these developments have seen the need to be involved in an elite academic field where new technologies are handled.

Lunabotics project innovation is the creation and participation of Colombian team competition organized by the mining NASA Kennedy Space Center, in addition to this we have the following aspects:

The project aims to promote robotics research in universities, colleges and other institutions with technological developments, so that the projection is fully open, adaptable and expandable.

It is applicable and highly interdisciplinary because it integrates different branches of engineering with the same goal.

To analyze and develop different techniques that are appropriate for robotic excavation and collection of surface soil samples, in this case, regolith.

The purpose of this project is focused on the design and implementation of a robotic excavation and collection that meets the conditions of the NASA prototype of this order, and additionally can be presented in the Lunabotics Mining Competition



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