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PROPOSAL AND DESIGN OF A ROVER FOR THE EXPLORATION OF MARS BY UNTELS

Abstract

In the context of rapid technological advances, especially evidenced in the space field with projects such as the James Webb telescope and the constant innovations carried out on the International Space Station, the exploration of Mars has acquired increasing importance. Exploratory rovers have become a crucial tool, demanding innovative proposals to face the challenges of extraterrestrial terrain. This work presents the proposal for an explorer rover designed by Untels students, with the aim of improving efficiency and versatility in Martian exploration. Considering the past successes of missions that have allowed us to analyze the Martian and lunar terrain, there is a need to develop technologies that enable exploration in even more challenging environments, such as Mercury or other celestial bodies distant from Earth. This project seeks not only to meet the technical demands of space exploration, but also to provide our researchers the opportunity to develop and demonstrate their capabilities, thus contributing to continuous progress in this highly demanding field. The research and development of this rover explorer will not only expand our knowledge of Mars, but will also lay the foundation for future missions into even more remote celestial terrain.