IAF SPACE EXPLORATION SYMPOSIUM (A3)
Interactive Presentations - IAF SPACE EXPLORATION SYMPOSIUM (IP)

Author: Mr. Antony Ramirez
BioMechanics Expedition Technologies (BioMechaX), Costa Rica, ramirezmonteroantony501@gmail.com

Mr. Marco Rodriguez
BioMechanics Expedition Technologies (BioMechaX), Costa Rica, ma.al.rod08@gmail.com
Ms. Sofia Vindas
BioMechanics Expedition Technologies (BioMechaX), Costa Rica, svindasc@outlook.com
Ms. Veronica Chinchilla
BioMechanics Expedition Technologies (BioMechaX), Costa Rica, veroflores04@icloud.com
Mr. Samuel Mora
BioMechanics Expedition Technologies (BioMechaX), Costa Rica, samorasalas2017@gmail.com
Ms. Noemy Perez
BioMechanics Expedition Technologies (BioMechaX), Costa Rica, noemiyuli@gmail.com

BIOMECHANICS EXPEDITION TECHNOLOGIES

Abstract

Space research is an area with a great challenge at the time of visiting certain places, distance is the main variable that cannot be removed in space travelling. The most viable solutions have been telescopes and sending robots to take and analyze samples in space. Our project focuses on this last aspect, BioMechaX intends to carry out remote expeditions in places that man cannot access. Obtaining results is always the most important part in a scientific and space type project, the expression phase is the summit of two previous phases in which we, as a team, concentrate on creating a training environment for the astronauts that will be sent into space, in addition, we also focus on public outreach through interactive learning, turning this area of science and engineering into entertainment. All the testing of new technologies and processes assure us the success of our third phase in which the Union of them, will be our main tool to achieve high performance expeditions.

Our team is one of the pioneers in the country in proposing a system created specifically for space exploration, both planetary and lunar, in which the researcher can be part of the robot, so that he can see the environment and interact with it, almost as if it were in the same place as the robot. This technology integrates technologies such as haptic suits, which transmit sensory information from the robot to the researcher, providing high ease handling the robot. In biomechax we bring to the space world a new era in which the integration of VR systems and advanced technology come to revolutionize the training of astronauts and the approach with the public, that is why the importance of our project will bring benefits to different areas. of science such as Natural Sciences, engineering, psychology, among many other areas. Apart from all this, BioMechaX is also interested in the alliance with different space programs to be able to link expeditions that are currently carried out worldwide, this objective is not only limited to organizations of national origin but also goes further in the search for alliances with the space agencies around the world, this sense of Union for science is a fundamental part of our objectives as a company for the construction of a more sustainable future and of course development to Costa Rica.