Design of a Telepresence System to Operate at Mars Surface in a Pre-Colonial Context

Romero Hernandez, Joel

With the technology available now, to explore the surface of Mars by sending humans has to face important issues mostly related to their security and health. In this project, I research how to develop a mission in which a human operator inside a spacecraft will be able to send instructions to a human-like robot in the surface of Mars. I develop different prototypes using low-cost and open hardware components, having as main objective to reduce the wall that makes this technology look as an inaccessible goal for novice investigators. This type of investigation aims to solve problems related with manned missions, such as that the astronaut has not to expose him/herself to dangers like re-entry, or the fact that it is very difficult to leave the planet once landed. In addition, it tries to be the origin of new specialized investigations, because with enough research this technology could be used to solve issues in other fields beyond astrophysics such as bionics or civil engineering, among others

Awards Won:

NASA: Second Award of $750