PLANETARY EXPLORATION USE CASE OPEN DATA

Please use this file to help you navigate the sub folders.

Algorithm descriptions: it includes a document explaining the basics of Nelder-Mead algorithm, and another one for the DLS implementation.

Energy model: it includes a document explaining the energy model for the physical part of the system.

GUI: it includes the communication protocol implemented, an example of UART receiver and the Python files of the graphic user interface used to command the arm.

Implementations: it includes the PREESM project for the parallel implementation of Nelder-Mead algorithm.

Physical model: it includes a document explaining the physicalmodel of the arm.

Simulator: it includes the Python files for the Movement Simulator.

Storyboard: it includes a document with the storyboard for the implemented scenario.

Technical detail: it includes a document with a link to the vendor’s website for the robotic arm and the development board.

Trajectories: it includes documents for the pre-set trajectories and a source file for a trajectory generation.

Use case requirements: it includes a document stating the technical requirements of the use case.

Workspace: it includes a document with a figure, equations and additional considerations for the “safe zone”.