Prioritized Technology: Low Temperature Actuators and Mechanisms – Testing facility

Technical Goal

1. "Wet" cryogenic testing facilities. (eg Liquid Methane)
   a. Establish design criteria for test facility
   b. Establish requirements for test facility

Technical Status

- JPL built a 10L liquid methane, ethane and Nitrogen (Titan lake) bath for testing. Should sustain a 5W source. Needs to mature the facility to be able to submerge components for subsystem testing
- Dry facilities exist in many but wet facilities are still in infancy of development

Mission Applications

1. Provide Testing environment for surface mobility and sub-surface acquisition for Titan lake and other ocean worlds. This increases chances of survivability of the mission in that we are "designing and testing and operating in the environment we fly in"

Development Cost and Schedule