

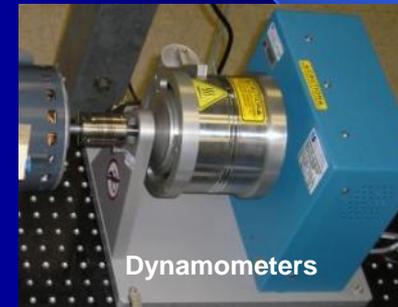


Mechanisms Development Lab (MDL)

Org. D202, Bldg. 1202, Rm 123

Systems Engineering Directorate

Objective: To develop mechanism technology in support of NASA programs and vital national interests. The goal is to support both flight and R&D type efforts by providing a mechanism oriented workspace for engineers and scientists. Recent emphasis has been in the development of low temperature mechanism technology which will be required for Space Systems for Exploration and has entailed actuator life testing at temperatures below 40 degrees Kelvin.



Capabilities:

- Mechanism Model Validation
- Low Temperature Vacuum Chamber
 - Extended testing at temperatures as low as 14 degrees Kelvin without the use of consumables.
 - 180 watts total cooling at 40 degrees K
 - 36 inch dia x 35 inch high vacuum chamber
 - Vacuum levels to 10^{-7} torr
- Dynamometers for motor and actuator torque measurement and loading.
- Data acquisition
- Mechanism control and monitoring
- 14' x 12' Clean Tent
- Optic tables for breadboard assembly of systems

