National Aeronautics and Space Administration

In Situ Resource Utilization and Surface Systems

NASA KSC is seeking partners in joint technology development projects and technology commercialization in the fields of in situ resource utilization and surface systems.

Lunar Attachment Node for Construction and Excavation

RESOLVE Experiment

Carbothermal ISRU Plant Pneumatic Regolith Feed System

partnerships

Objective: Develop technologies to support sustainable human and robotic exploration of other planetary surfaces.

Technology Areas:

- Resource prospecting
- Surface excavation, preparation, and modification
- Electrostatic lunar regolith mineral enrichment
- Electrostatic regolith size sorting
- Regolith feed system
- Mars atmospheric capture
- Regolith beneficiation and handling
- Resource extraction
- Cryogenic storage
- Dust-tolerant and dust mitigation technologies
- Flex lines for cryogenic-liquid transfer
- Modular structural interfaces
- Automated umbilicals
- Deployable access systems
- Lightweight structures

Technology Capabilities:

- Polymer Science and Technology Laboratory
- Nondestructive Evaluation Laboratory
- Granular Materials and Regolith Operations Laboratory
- Electrostatics and Surface Physics Laboratory
- Electromagnetic Effects Laboratory
- Cryogenics Test Laboratory
- Controlled Environment Laboratory
- Chemical Test and Analysis Laboratory
- Applied Chemistry Laboratory

Please contact us if you are interested in collaborating with KSC on joint development projects.

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