Program Concept: Future Intelligent Lunar Cargo



Team
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From Intelligent Cargo Management to Autonomous Space Operations

Lunar Cargo Management System

- Intelligent Perception
- Digital Twin Management
- Intelligent Decision



Future Expansion

Autonomous Storage & Retrieval

Future systems can achieve fully autonomous material storage, retrieval, and inventory management without human intervention.

Multi-Agent Robot Collaboration

Multiple robots can cooperate to complete complex transportation and maintenance tasks.

Integrated Space Operations

The system can evolve into a comprehensive platform for managing equipment, resources, and operational activities in future space missions.

The future vision is to build an autonomous intelligent management platform for long-term space exploration missions..

Future



Integrate multi-source perception data, including vision, sensors and environmental information, to improve object recognition accuracy and robustness in complex space environments.

Develop intelligent scheduling algorithms based on large language models to achieve autonomous task planning, multi-robot coordination, and efficient material transportation.

Enhance digital twin capabilities by integrating real-time data synchronization, 3D modeling and intelligent interaction for comprehensive space material management.