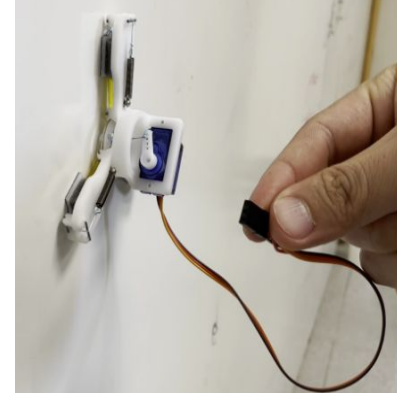# KALL MORRIS INC

KEEPING SPACE CLEAR FOR ALL

Asteria: Semi-Permanent Payload Attachment for Defense, ISAM, and SAML

Asteria is an innovative adhesive technology that allows the coupling of payloads to legacy and modern Resident Space Objects (RSO), enhancing ISAM capabilities, improving tracking, and facilitating deorbit needs.

For persistent attachment to existing RSO, Asteria uses gecko adhesion to attach new payloads to unprepared RSO, enabling passive disposal, future interfacing or servicing, life extension, or adversarial defense. This technology allows for permanent attachment of modules to unprepared surfaces without requiring continuous power input or external support for this capability.

This technology utilizes omnidirectional gecko adhesion to establish a viable method of permanent attachment to objects in space, on a wide range of compatible material and surface types, for a wide range of applications.
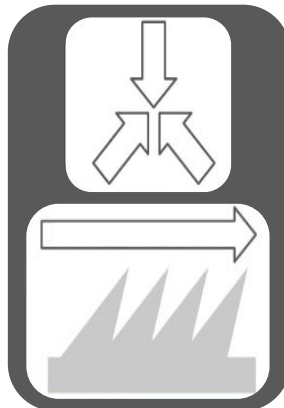
Pictured: Demonstration of adhesion without power

Differentiators

Capabilities

- Enables improved tracking, passive disposal, future interfacing, and life extension

- Exploits intermolecular forces to function in a vacuum and over wide temp ranges

- Does not require continuous power input or external support

Pictured: Directional forces of application & adhesion

Use-cases
Attach new payloads to RSO:
- Enhanced capabilities
- Location transponders
- Passive deorbit devices
- Docking infrastructure
- Defense systems

Impact
- Improved object tracking
- Asset protection
- Data collection
- Disrupting & Disarming
- Deorbiting

Contracted Development

△ 3 → TRL → △ 6

Critical Partnerships

Current: Experimental critical function & proof-of-concept prototype
Near term: System prototype demo in an operational environment
Future: Operational payload with completed missions.

2022: SpaceWERX Orbital Prime Phase I STTR *Permanent Attachment of Supplementary Module to RSO Analysis*

2023-2024: SpaceWERX Orbital Prime Phase II STTR *Asteria: Permanent Attachment of Supplementary Module to RSO*

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