

Call for Ideas (5 Pages Maximum) template
Preliminary Workshop for the 10th Mission Idea Contest

1. Basic Information

Proposal Title

Team Name

Representative

Affiliation

Contact Information (Email) Date of submission

2. Idea Overview (About 1 page)

2.1 Concept Summary (150–200 words)

- ① Briefly describe your idea.
- ② What problem does it solve?
- ③ What physical principle does it use?
- ④ What makes it interesting or innovative?

Example structure:

This proposal aims to generate a force on a satellite without using a propulsion system by utilizing [physical principle]. The objective is to achieve meaningful orbital deviation within 48 hours for debris avoidance, and after the debris avoidance, to provide a method to return to the original orbit as much as possible

2.2 Physical Principle

State the main physical principle(s) involved.

(Examples: differential aerodynamic drag, solar radiation pressure, geomagnetic interaction, mass redistribution, etc.)

2.3 Direction of Orbit Change (in Orbital Frame)

- Main direction (x / y / z)
 - Secondary effects (if any)
 - Orbit restoration direction (x / y / z)
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3. Description of Device or Mechanism Concept (About 1 page)

- Basic configuration or structure
- Deployment mechanism (if applicable)

- Estimated mass (must be within 20% of satellite mass)
 - Estimated power consumption (must comply with 20 W limit)
 - Operational concept (how and when it is activated)
- Rough sketches or simple diagrams are welcome (optional).
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4. Expected Performance (About 1 page)

Provide simple, physically reasonable estimates (with some equations).

- Estimated force magnitude (order of magnitude is sufficient)
- Estimated Δv achievable in 48 hours
- Expected orbital deviation (rough estimate in km)
- Expected orbital restoration performance after debris avoidance

Explain briefly why your estimate is realistic.

5. Feasibility and Originality (About 1 page)

- What is novel about your idea?
- What are the main technical challenges?
- Why do you believe it is feasible?