

Simple and Effective Satellite De-Orbit in only 15-days

DragEN is a very simple, highly versatile **tether deployer** used for responsible de-orbit of nanosatellites at the end of their mission life.

Its compact size (24390 mm³) and mass (94.5 g) allows for **many mounting options** directly onto common Cubesat, Cansat, and Tubesat bus structures.

Deployment of a mono-filament tether occurs by releasing a spring-loaded Bottom Ballast. The tether tension and gravity gradient cause the ballast to rotate 90 degrees into a yo-yo configuration for a **natural roll-out** of the tether. This safe and uncomplicated approach reduces moving parts and aims for **high reliability** in the harsh operating conditions of space.

DragEn is made with high-strength Al 6061 and is **compatible** with a wide range of commercial and military satellites.

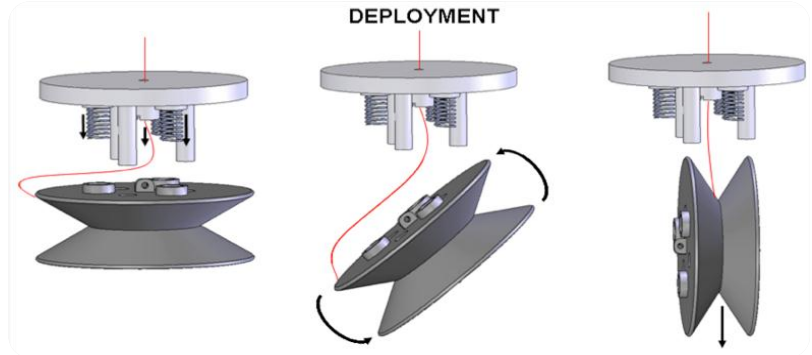
The system can be modified to produce up to 330mW of power using electrodynamic tether and an emitter. This will extend redundant power at the critical final two weeks of the spacecraft's life.



- ✓ **De-Orbit any picosatellite**
- ✓ **Simple and flexible**
- ✓ **Easy deployment**
- ✓ **Great for plasma research**

specializing in

satellite software engineering
systems engineering
space operations research



Design Specifications

Tether	200m Aracon
Total weight	95 grams
Total volume	24390 mm ³
Proportion of internal area	~6.5% of a Cubesat
Strength analysis – Launch	FOS 3.53 base, no load on ballast
Strength analysis - Deployment	FOS 202 base, FOS 27 ballast
Control	Passive: springs
Stability	Passive: expected 7°-17°
Manufacture	6061-T6 alloy, stainless steel

where we come from

