



Control and Deorbit Spacecraft without Rockets

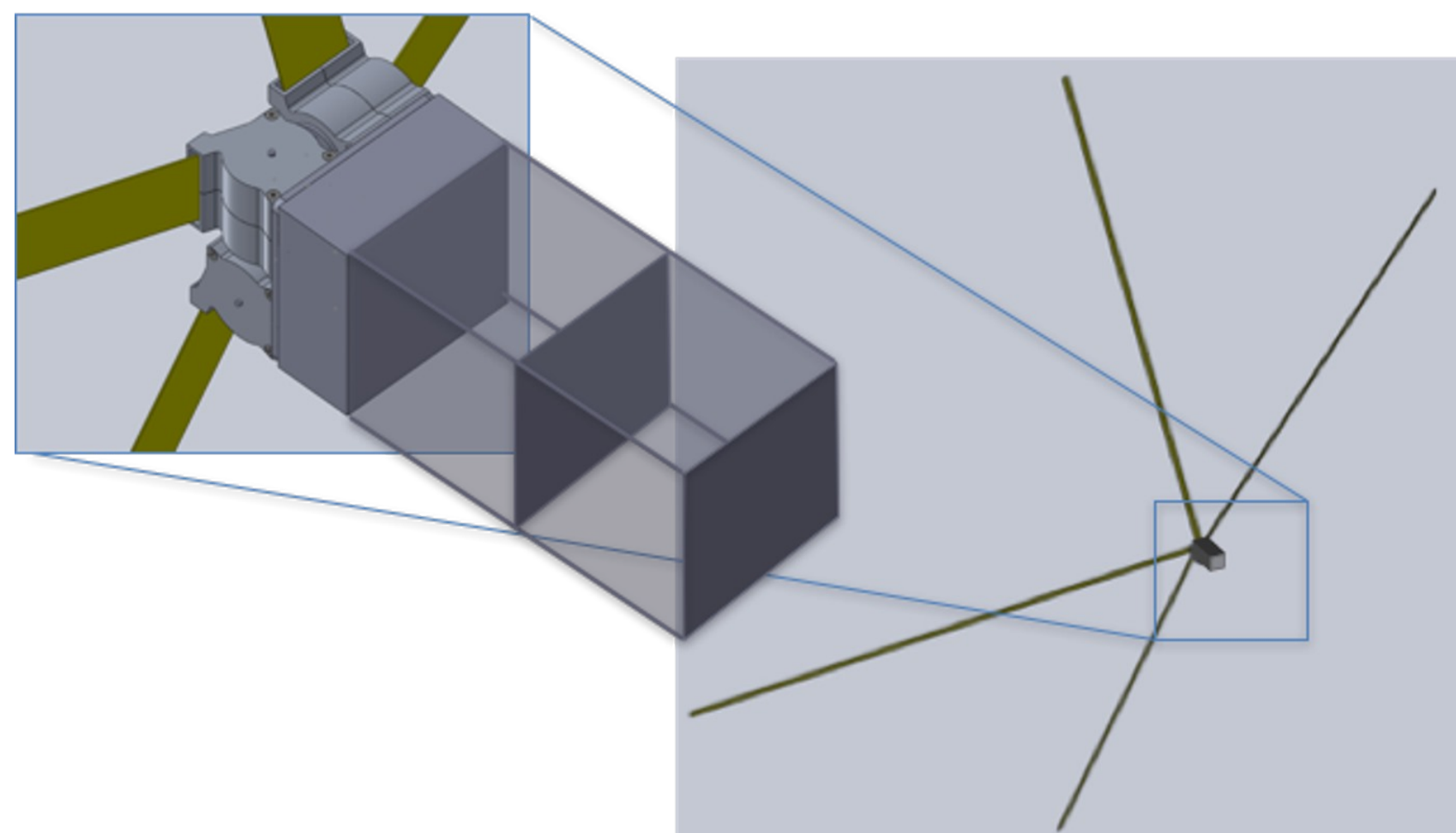
Our vision is to advance human progress in low Earth orbit with innovative business methods and new technology.

www.orboticsystems.com

Unrivaled and unique, the D3 can inexpensively maneuver, orientate, and deorbit your spacecraft. All this without any explosive rocket fuel.

Deorbit Drag Device (D3) Summary

The D3 modulates spacecraft drag force, while controlling orientation and orbital decay. It can be used to control a satellite constellation, deorbit a satellite, and target the re-entry location. It does all of this passively, without any rocket propellant. The D3 is a simple, reliable, low-cost, non-propulsive system. Any operators of a small spacecraft can use the D3. This includes CubeSats, CYGNSS spacecraft, ESPA Class spacecraft, and the Orion 38 motor (depleted).



Milestones

- Orbotic Systems Founded
August, 2019
- Incorporated
June, 2020
- Expanded team to four
September, 2020
- Obtained exclusive license for D3 from NASA and UF
October, 2020
- Retained North Coast Capital Advisors Ltd
December, 2020
- Fabrication and Test Facilities Acquired
June, 2021
- Exhibitor for Space Tech Expo
May, 2021
- D3 Launch on SpaceX Falcon
November, 2021

Problems

Here are just a few problems that small spacecraft operators face today:

- Lower launch and mission costs
- Conformance to a 25-year orbital debris mandate
- Space traffic management, orbital debris mitigation and satellite control
- Avoid collisions; reduce liability and risk of generating new debris
- Provide ability to target unpopulated earth re-entry points
- Ability to stagger CubeSat constellations (or other spacecraft)
- Improve ground radar visibility of spacecraft

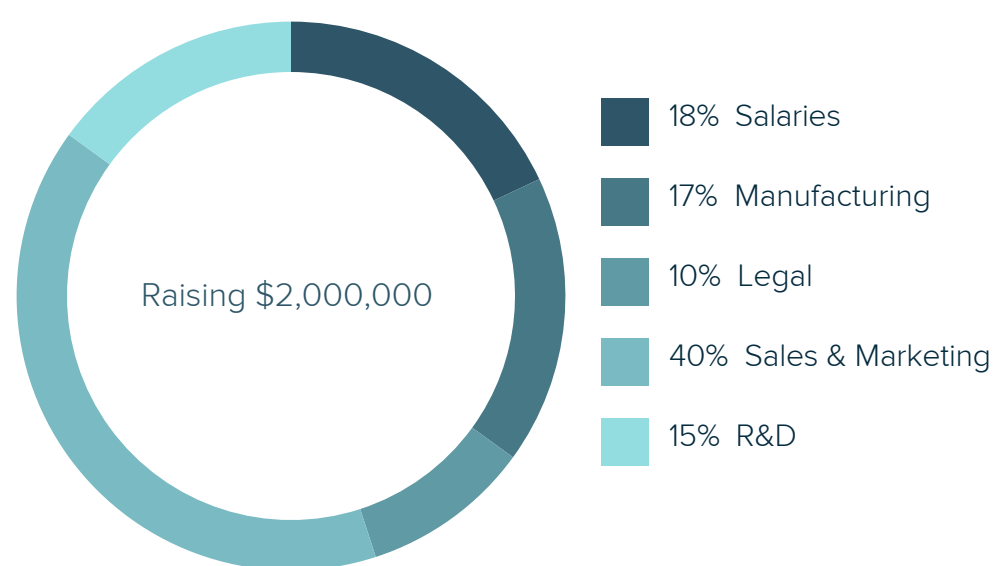
Solutions

The D3 will allow spacecraft operators to do the following:

- Inexpensively control spacecraft in orbit without rocket thrusters or dangerous rocket fuel.
- Meet the NASA and ESA 25 year deorbit mandate
- Easily perform a collision avoidance maneuver (CAM)
- Safely re-enter spacecraft over a chosen earth coordinate
- Quickly control satellite constellations
- Create a larger footprint for ground radar

Funding Goals

Orbotic Systems is currently open to partner funding. If you are interested in an opportunity with us, please contact Erik T. Long listed below.



FAQs

Does the D3 use any propellant at all?

No. This is great for spacecraft operators because it may take the craft out of ITAR, reduces weight (and cost), reduces complexity, and lowers legal and debris risks.

Re-entry can be accurately controlled?

Yes. Not only does this dramatically lower risk of death and damage (legal costs), but it also allows developers to use new materials. Examples include titanium, tungsten, tantalum, etc.

Can the D3 help control a constellation?

Yes. In addition to programmed and ground station maneuvers, the D3 can help identify spacecraft in a constellation. This will assist the operator in forming the desired pattern.

I have more questions. May I contact you?

Yes. There are many more capabilities of the D3. Contact us with any questions.

Meet Our Founder



Erik T. Long

Founder & President

Hi, my name is Erik T. Long and I am the Founder and President of Orbotic Systems. I started Orbotic Systems after learning about the great threat of space debris. I was so alarmed by this problem that I decided to do something about it. After investigating solutions from both a business and technical perspective, Orbotic Systems was born. My goal is to safely advance human progress in space with innovative business methods and new technology.

I have over 20 years of experience in the technology industry including project management. Some of my accomplishments are:

- Formed Orbotic Systems Inc.
- Completed several state of the art (SOA) NASA technology license deals for Orbotic Systems in 2020.
- Co-founded FinTech firm Quant Trade, LLC in 2007.
- Successfully negotiated deals with Sunoco Energy and Bloomberg for Quant Trade.
- Founded and sold technology company Tetrahex Inc. to a publicly listed company in 2006. Placed on the Board of Directors as Director of Strategic Technology.
- Developed multivariate analysis software based on Chaos theory. Patent number: US 20070156479A1
- Project manager for state of the art (SOA) decision support software using neural nets with wavelet filters.

Education: Master of Science in space studies and aerospace science, Post Graduate Diploma in economics, Graduate Certificate in IT project management, Bachelor of Science in bio-anthropology and economics, Associate of Science in business management.

I intend to introduce a sound and profitable solution to space debris remediation. In the process, Orbotic Systems will bring new technologies and a novel business approach to accommodate the clean development of low Earth orbit (LEO).

el@orboticsystems.com

The Business of Orbotic Systems

Key Partners

Orbotic Systems has teamed up with NASA, University of Florida, North Coast Capital Advisors Ltd., Ansys, Padt, MJS Designs, ProtoLabs, Xometry, Cal Poly CubeSat Lab, Space Tech Expo, and SpaceCom.

Key Activities

Our primary activities have centered on taking the D3 to market. This includes testing, scaling, market studies, raising capital, and identifying clients.

Key Resources

Orbotic Systems is currently opening its doors to qualified investors. If you are interested in contributing to the "New" Space Race, you should contact us.

Unique Value Proposition

The D3 is the first product of its kind that can safely, inexpensively, and efficiently deorbit over a chosen location and control orientation without the use of rocket propellant. The D3 is a simple, reliable, low-cost, non-propulsive system. The numerous benefits described in this document make it a necessary and welcome component for small spacecraft operators worldwide.

Customer Relations

Orbotic Systems is dedicated to working directly with our clients. Providing solutions that can solve their problems is our number one goal.

Distribution Channels

We believe it is just as important to get great technology to customers as it is to build it. For that reason, Orbotic Systems is dedicated to a successful marketing and distribution plan.

Customer Segments

We envision providing the D3 solution to various segments of the small spacecraft community. Our customers include commercial, academic, government, research, and hobby spacecraft operators.