

# Exo-Space

Exo-Space Seed 2021

**\$100** RAISED

0% FUNDED | 1 INVESTORS

SIGN UP TO INVEST IN EXO-SPACE

\$100.00 Minimum investment

Exo-Space, Inc



PITCH

COMPANY

DISCUSSION

## DEAL TERMS

Deal Type	Convertible debt
Valuation cap	\$7,500,000.00
Discount	15.0%
Maturity date	December 08, 2024
Type of security	Convertible debt
Interest rate	4.0%
Investment Range	\$100.00 - \$100,000.00
Funding goal	\$25,000.00 - \$1,070,000.00
Closing Date	December 09, 2021

Hi. Need any help?

## PROBLEM

**Space data delays result in billions of dollars of loss every year.**

Each day satellites send over 10 million raw photos down to Earth. Images are being created faster than they can be sent to the ground and processed [1]. In the next 3 years, satellite cameras will produce images at a rate of 1 gigabyte per second [2\*], which represents 10 times the amount of data generated from one sensor than is generated from all satellites in operation today. What's worse is that it can take hours before raw images are sent to the ground, processed, and then delivered to the end user. This delay in data, also known as latency, has major impacts and could mean the difference between locating and intercepting illegal fishing activities or containing wildfires before they get out of hand.

*\*User input required to view source. Statement takes place at 29:30.*

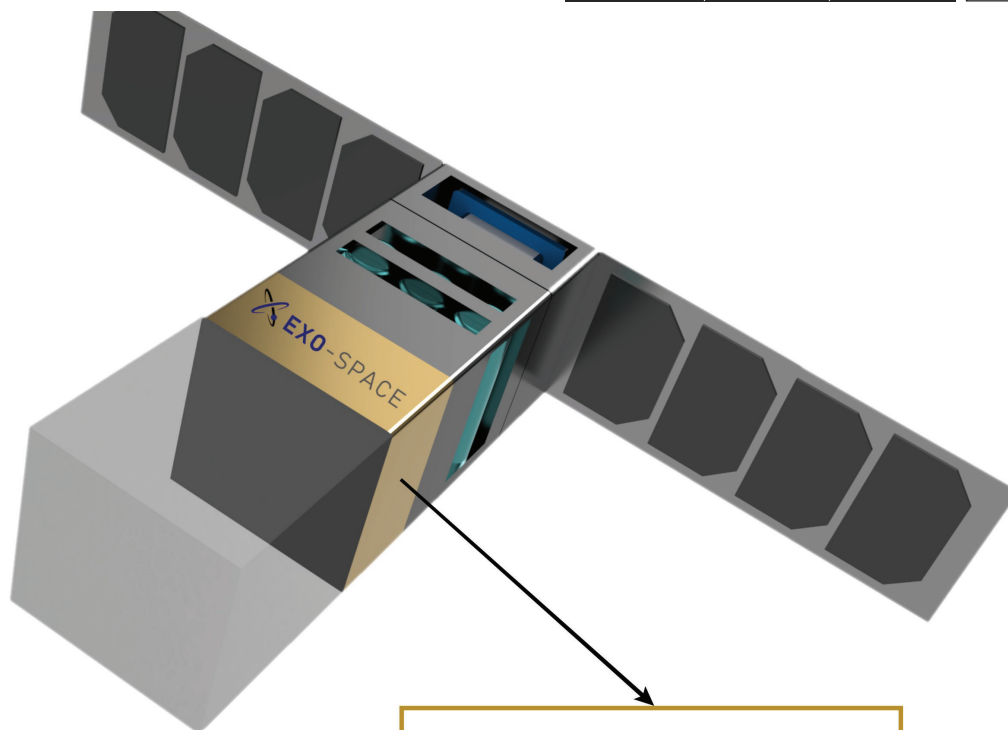
## SOLUTION

**Allowing secure access to space information 10x faster by processing data on orbit.**

Exo-Space has developed a device that mounts directly onto a satellite and hosts applications for AI, analytics, and communication enabling complex image analysis on orbit, also known as Edge Computing. Our edge device, which we call FeatherEdge, receives images directly from an onboard camera and analyzes them using an ultra-fast image processor (see Product section for details), which hosts customer-defined algorithms, also known as machine vision models, that decide which pixels are important. Applications and algorithms that are hosted on FeatherEdge can be updated anytime on orbit through our easy-to-use API. This enables customers to host multiple models at once and gives them the flexibility to adapt to changing markets. Instead of downlinking all of the raw data a camera generates, edge computing reduces data latency by only sending useful processed pixels to the ground.

## PRODUCT

**FeatherEdge - a satellite mountable machine vision device with proprietary hardware and software.**



### FeatherEdge

**Mass:** 1.4 kg

**Size:** 0.5U CubeSat standard.  
96mm x 96mm x 50mm

**Power:** 15 watts at peak power,  
9 watts under normal operations

*Example 3U CubeSatellite with the FeatherEdge payload inside.*

The Exo-Space team has experience building, designing and writing software for satellites. Our collective experience has led to our developing a device that is compatible with the hardware and software architectures of most satellites.

There are 4 basic components that make our product work:

#### **On the hardware side:**

- 1) Motherboard – built in-house in Pasadena, CA, this electronic board has all the standard communication interfaces (UART, I2C, SPI, Ethernet, etc.) that allow for easy communication and integration into any satellite system. Components on the board protect the processors from high energy particles in space which can cause single event effects such as data corruption and permanent device damage.
- 2) Hardware Accelerator – this is a processor that is built specifically for image processing. It's similar to a CPU but is 180x faster! The FeatherEdge hardware accelerator is optimized for machine vision models, which rely heavily on a specific type of matrix multiplication.
- 3) Radiation Shield – this compact enclosure is built with a proprietary structural shielding using specialized coatings and material layers to protect against the effects of space radiation. To mitigate against the extreme temperatures of space, we have included a thermal control system to precisely manage the hardware temperature for optimized performance within the enclosure. The device's robust design ensures integrity of the onboard data in the harsh space environment.

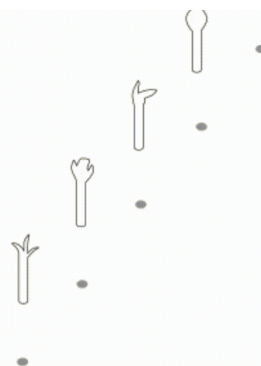


*Banana for scale. The Exo-Space machine vision device (FeatherEdge) was designed to fit on any satellite, even ones as small as a shoebox. The combination of a small form factor and ultra-fast machine vision processor plays a significant role in our value proposition.*

#### On the software side:

4) Custom machine vision models – The best way to understand how we build our machine vision models accurately and quickly is through the analogy of grafting trees. Grafting is an agricultural technique used to join the upper part of one plant (i.e. the fruit bearing limbs of an orange tree) with the lower part (i.e. rootstock) of another plant **(see animation below)**. This technique ensures that trees grow quickly, bear the greatest amount of fruit they can, and are capable of surviving in climates they may not have originally evolved in. Similarly, our machine vision models can be thought of as "rootstock," and the various machine vision solutions we build for our customers as the fruit bearing "branches" of a tree. Our software allows many different, customized branches to be grafted or added on to the same core, Exo-Space rootstock.

## SOFTWARE ARCHITECTURE



EXO-Space pretrained network. Last fully connected layer is removed.

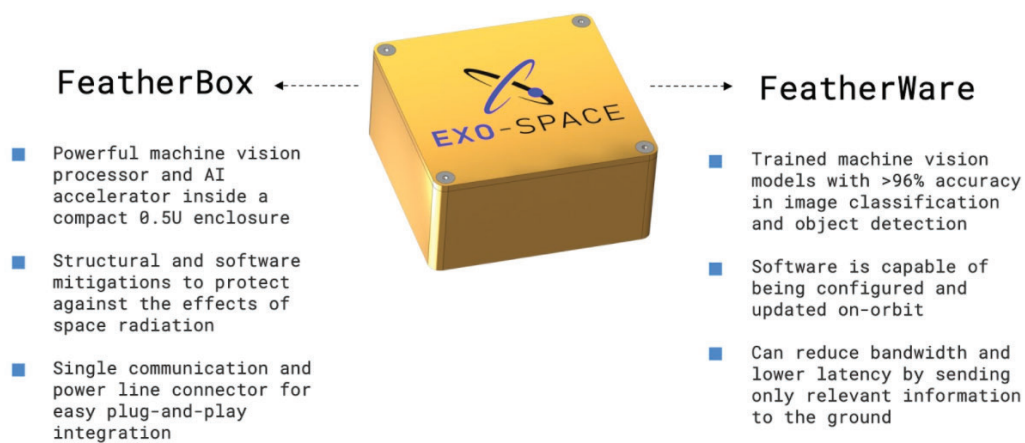
Customer-specific layer is added to base layer network. Base layer remains fixed and only customer weights are adjusted during training.

Base layer serves as a fixed feature extractor while customer layers are trained to identify objects or events relevant to the customer.

Using the same base network for feature extraction saves thousands of hours of compute time on high performance processors (like GPUs) for training each model. This technique is an industry standard for developing machine vision applications for mobile platforms and has a proven track record for being highly effective across a wide range of devices [4]. While the procedure for developing models will not differ from the techniques used in the mobile phone industry, Exo-Space will be one of the first space companies to implement this technique for satellites. Savings on compute time drastically reduce the cost of each model, which makes them more cost effective for our customers. We are developing proprietary software for illegal fishing vessel detection, crop monitoring, and satellite docking (see "Traction" section). These are only a few of the many use cases for machine vision in space and our flexible software architecture is designed to support our customers as they adapt to changing market needs.

## FeatherEdge Platform

Hardware and AI software payload for on-orbit image processing



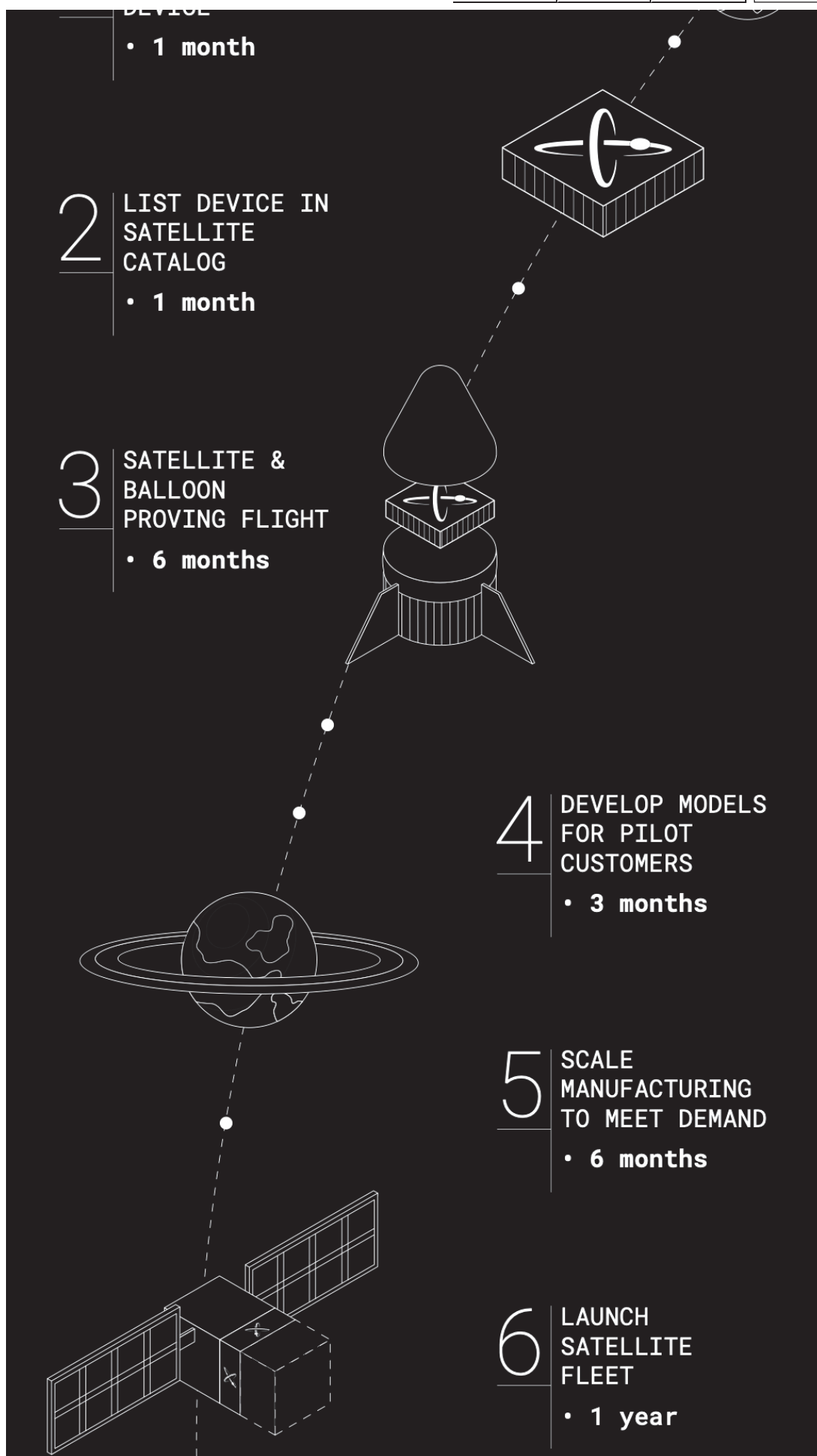
### Manufacturing

Exo-Space has chosen manufacturers that can meet the high standards needed for space hardware. The FeatherEdge motherboard will be built by a printed circuit board (PCB) manufacturer called Advanced Circuits, which offers quick turn around times and high reliability. The radiation shield enclosure will be manufactured by a local machine shop in the Los Angeles area that focuses on aerospace components. All vendors for the commercial-off-the-shelf (COTS) components have been identified and purchases are ready to be made. Exo-Space will then assemble the product in a clean room at our facility in Los Angeles.

### Typical Lead Time Based on Number of Units Ordered

Order Size (units)	Procurement Lead Time (weeks)	Assembly Lead Time (weeks)	Total Lead Time (weeks)
1-10	6	4	10
10-50	8	5	13
50+	10	6	16

*Typical development times for small satellite missions are well over 12 months, so we are confident that our FeatherEdge hardware lead times will work with most satellite program timelines.*



## Product Development Timeline

### TRACTION

#### ■ 3 LOI's representing 45 units and \$4.5M in potential revenue over the next 18 months.

Within the past year alone, Exo-Space has achieved significant business and engineering milestones. Specifically, we have:

#### In 1 month:

- Trained our machine vision model and demonstrated its capability during a live presentation with Arkisys, one of our company partners.

#### In 3 months:

- Designed and built a machine vision prototype, called FeatherEdge.
- Designed the flight model that will fit into a CubeSat.

#### In the last 6 months:

- Received interest in our product from industry leaders in Earth Observation, and from non-profit organizations such as [The Environmental Justice Foundation](#) in Southeast Asia and the [Adler Planetarium](#) in Chicago.

#### In the last 12 months:

- Signed 3 Letters of Intent (LOIs) with satellite manufacturers and interest from high altitude balloon companies to help them provide a more robust product offering in their catalogues (details below).

#### LOI #1 **Arkisys**



Exo-Space is helping [Arkisys](#) realize their goals by providing them with object detection for incoming satellites during rendezvous and docking.

Arkisys showcased Exo-Space technology in a live demonstration intended to amplify the unique technology we bring to satellite operators in December 2020. To validate our technology in space, Arkisys plans to host it on their on orbit commercial platform called [The Port](#) in 2022.

Similar to what the SpaceX Dragon Capsule uses when autonomously docking to the International Space Station (ISS), our product provides flight safety for any two satellites that might need to:

1. rendezvous and dock (e.g. [MEV-1](#) mission),
2. perform on-orbit inspection missions (e.g. [Restore-L](#) mission),
3. remove orbital debris (e.g. [ClearSpace-1](#) mission).





In the demo above, our device was executing the following steps on a continuous loop every second:

Step 1) FeatherEdge ingests the raw data coming from Arkysis' camera

Step 2) FeatherEdge identifies the docking feature of the incoming satellite (shown by the green bounding box)

Step 3) FeatherEdge calculates the center point of the docking feature (in pixels)

Step 4) FeatherEdge sends the center point value via a User Datagram Protocol (UDP) packet over the internet to the Arkisys 6 degree-of-freedom (6-DoF) attitude control system. The control system runs without any external input (known as a closed loop system) and calculates how far (in degrees) the camera needs to move in order to place the incoming satellite in the center of the photo. The camera angle is adjusted and a new picture is taken

Step 5) The process repeats

### LOI #2: Blue Planet



Another pilot program customer, [Blue Planet](#), describes our device as an "enabling technology" for their mission. The company's core technology is developing the cameras and ground station network for a constellation of Earth Observation satellites that can "Xerox" the Earth everyday and also provides a web portal where customers can log in at any time to view their data and images. We are currently working to customize our technology and provide a unique solution for Blue Planet, and plan to support their mission by providing an on-board image processing device which can detect the presence of clouds in photos and adjust the onboard compression ratio in real-time to optimize downlink bandwidth. This will greatly reduce the per pixel cost of Blue Planet images taken from space.

### LOI #3: Orbital Transports



[Orbital Transports](#) delivers SmallSat (a satellite as big as a mini-fridge) programs from initial concept through to completed mission. They are a space logistics company that coordinates the complex elements involving space vehicles, technologies, people, facilities, and services required for successful space missions. In addition to SmallSat solutions, the Orbital Transports SmallSat Catalog provides complete supply chain services for SmallSat missions, including access to industry-leading spacecraft



expertise.

Exo-Space has signed an LOI with Orbital Transports to become a catalog partner, which is contingent upon FeatherEdge reaching a Technology Readiness Level (TLR) 6 or greater. Achieving TRL 6 verifies that FeatherEdge can successfully operate in the space environment (See "Use of Funds" section to see Exo-Space's plan to achieve TRL 6).

### Interest from (Stealth Company)



In addition to interest from satellite operators, we also have received a lot of interest from high altitude balloon companies. These companies are interested in our device because their balloons have the ability to hover in the stratosphere for weeks at a time with many high data rate optics onboard. FeatherEdge provides high altitude balloon companies with a system that can tag objects of interest (such as ships and cars) and extrapolate their velocity in sub-meter resolution in real-time.

### CUSTOMERS



**Arkisys**  
PILOT



**Blue Planet**  
LETTER OF INTENT



**Orbital Transports**  
LETTER OF INTENT

**Short term ideal customers use our processed satellite photos to inform critical decisions; long term ideal customers offload their data processing needs to our space based data centers for general AI applications and data processing in space.**

### Our Current Customers Need Machine Vision Processing in Space

From fighting human trafficking and illegal fishing to gas flare monitoring and disaster relief efforts, our customers are solving some of the toughest global issues today. In order to be effective, they need reliable access to the most up-to-date and high fidelity data available.

We offer our customers Earth Observation (EO) data processing from four main platforms: satellites, high altitude balloons, planes, and drones. Our ideal customers include companies that are:

1. Operating constellations of Earth Observation satellites

satellites

3. Operating satellites that require rendezvous, docking and/or inspection procedures in space
4. Generating a lot of data locally but might not have the bandwidth to support sending all of that information to a processing center
5. Looking to process their data securely rather than sending their information to processing centers over public internet lines

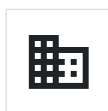
Exo-Space has identified over 100 potential customers that are generating or using Earth Observation data who could benefit from our FeatherEdge platform. Our customer acquisition strategy relies on showing potential customers a live demo of the product. Through cold outreach, attending trade shows, and participating in live demos with our partners, we are confident that we'll be able to demonstrate the capabilities of our technology to engaged audiences. We also have plans to grow our customer pipeline by forming channel partnerships with 3rd party vendors like Orbital Transports, the CubeSat shop, and other satellite bus providers and database companies.

### Future Ideal Customers Will Leverage Our Space Datacenters For On Orbit Computing

The "New Space" industry is developing a concept of operations and technology that supports autonomy and scalability. Part of this architecture will rely on generating and processing data locally. Processing data on orbit opens up opportunities for machine learning applications that aren't possible today. For example, it is not difficult to imagine a day in the near future when satellites will tell their operators which of their parts are about to fail, before they fail (this is called predictive maintenance and is already a standard operating practice in the airline industry). The Earth-centric view of sending space data to the ground for processing will be phased out in support of localized data generation and analysis because it's faster, more cost effective and highly scalable for space applications. Space based processing will pave the way for more exciting discoveries and richer scientific experiments in Earth orbit and beyond. (See our "Market" section for more details on why we chose machine vision as our go-to-market strategy, and why we see space data processing, also known as general purpose edge computing, as the future of space).

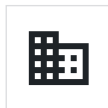
Our long term goal is to transition the FeatherEdge platform beyond machine vision to general purpose edge computing which will support machine learning services, data analysis and cloud computing on orbit. Ideal customers in the future are cloud computing companies like Microsoft, Amazon, Google, Oracle, and IBM who are looking for satellite computing platforms to expand their offerings beyond earth to service the exploding space data market.

### BUSINESS MODEL



#### Transactional

A one-time sale of goods or services



#### Service

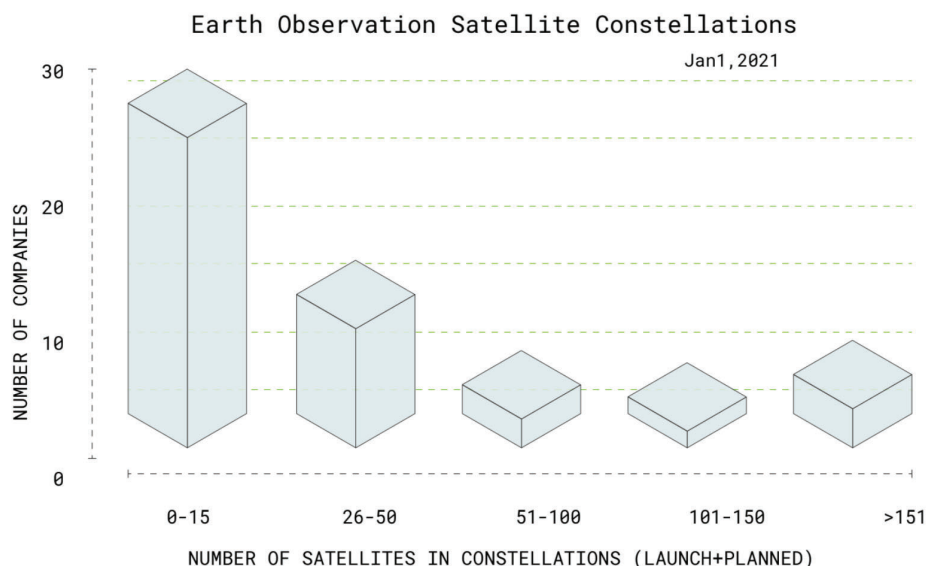
The company provides a service to the customer, paying for time or expertise

**We make money by selling our hardware and by making custom machine vision models with an optional maintenance subscription agreement.**

Our price tag is \$100K/unit for the hardware device and \$4k/month for the machine vision software package. Based on the LOI's we currently have, the average contract size is ~10 units, which represents a 69% gross margin. While the \$100K price tag represents the cost of hardware and 1 machine vision model, there is potential for recurring revenue if customers opt in for an annual fee, which would provide them with on orbit software updates and new machine vision models.

our product to companies operating larger earth observation constellations. This will open the door to much more profitable contracts ranging from 20-100 units (value of \$2M-\$10M). The goal is for these companies to become lifelong customers as they will need to continuously update and replenish their constellation of satellites (approximately every 5 years) as well as their machine vision software as new customer needs arise.

Finding new customers will not be a challenge because the Earth Observation market is seeing a large increase in new Earth imaging companies. There are currently 20 earth observation companies that have at least 10 satellites in their constellation [5]; and there are more than 50 new companies that have announced their intention to develop Earth Observation constellations, representing roughly 1,800 small satellites [6].



Source: <https://www.newspace.im/>

The revenue generated from selling machine vision hardware and software will fund the next stage of Exo-Space's expansion. Specifically, we will implement our satellite-as-a-service business model where we send up our own satellites to allow customers to "share" resources onboard, using the satellite for only a fraction of the orbit time (i.e. only when it is over their farm, forest, or other area of interest). Before investing substantial resources into the satellite-as-a-service business model, we intend to carry out a two-step validation process of both Exo-Space's and our target markets' readiness for the launch of such a service:

1. First, we will look to have signed customer agreements from machine vision hardware/software sales, which would demonstrate a general market interest in space data technology and also ensure a substantive revenue base. We will also ensure that we have sufficient staff members that can be dedicated to this endeavor without interrupting our existing business operations.
2. We will also carry out extensive market validation research. This will consist of drafting internal business plan documentation and detailing all potential industries and applications that the Exo-Space team can identify as potential targets for the new service. Later, it will expand into external research including surveys, attendance of trade shows and conferences for a wide variety of industries and holding our own seminars to stoke discussion on the future of space data. All of this will generate further information about market interest and uncover potential applications we may not have not previously considered. The goal of these activities is to identify both customers and partners that will open up markets which would otherwise have been inaccessible or inconceivable to our company.

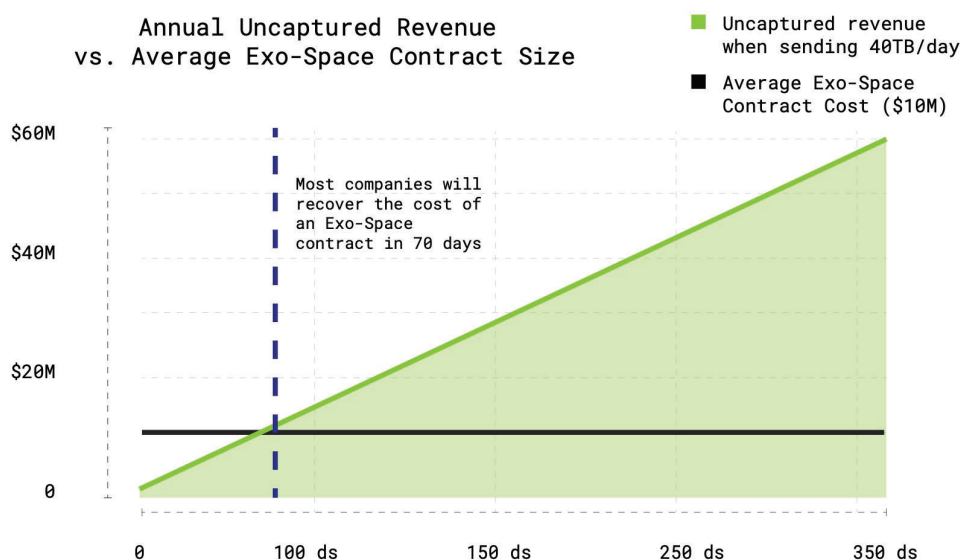
**\$7.5B**

Approximate Total Market Size

**Servicing a growing \$7.5B space data market with sights set on a \$1T global cloud computing market.**

### 2021 Space Data Market is Fragmented With Highly Specialized Compute Needs

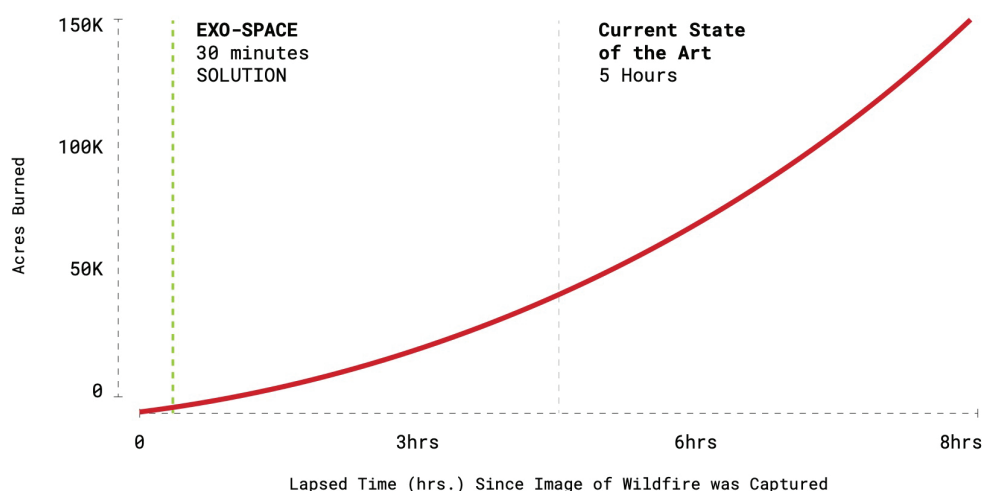
The magnitude of the problems Earth Observation (EO) data is just beginning to address, coupled with the many issues in the way that data is currently handled, indicate an opportunity for substantial and continuous growth when compared to the current \$7.5B market size for space data. By not processing images on orbit (see graph "Annual Uncaptured Revenue" below for details), EO companies are collectively missing out on a staggering \$500k per day of uncaptured revenue. In addition to recapturing revenue from unusable pixels, processing images on orbit has the potential to save hundreds of billions of dollars in losses due to natural disasters (\$91B+) [7], illegal activities (such as fishing (\$36.4B) [8] and deforestation (\$152B) [9]) and other events that require time sensitive information to be effective. For example, in the past 4 years alone, wildfires in the United States have cost \$64.7B [7].



Major Earth Observation companies are sending between 40 and 80 terabytes (TB) of data to the ground for processing per day [1], 30% of which must be discarded due to cloud cover [3]. Companies sending 40 TB of data per day will recover the cost of an Exo-Space contract in approximately 70 days due to the recaptured revenue potential associated with our on orbit data processing solution. Numbers are based on a 40 TB/day downlink rate and a cost of \$0.012 per square kilometer [10], [11].

The cost of a single fire is directly related to the number of acres burned and what the land was being used for prior to the fire (e.g. residential, farm, undeveloped etc.). One key factor in minimizing the impact of a fire is response time, which "can mean the difference between a catastrophic fire, like the Camp Fire that consumed nearly the entire town of Paradise, and one that is quickly contained" [12]. The graph below shows the number of acres burned in a wildfire while waiting for raw satellite images to be sent to the ground to be processed versus the estimated number of acres burned and average wildfire response times when deploying Exo-Space's on orbit image processing solution.

## PLATFORMS ON WILDFIRE SEVERITY &amp; RESPONSE



There are currently more than 700 EO satellites in orbit today, and the EO market has grown by 250% over the last 4 years. It is further projected to continue growing at 10% year-over-year [14]. There are more EO satellites being sent up than any other type of satellite and EO companies tend to send up constellations of satellites, which makes their average contract size larger and therefore worth more. Over the next 10 years, Euroconsult anticipates that an average of 990 satellites will be launched every year, 31% of these will be for EO, which translates to 306 EO satellites launched every year [15].

### Moving From the Highly Specialized Space Computing Market (\$7.5B) to the Global Cloud Computing Market (\$1T).

Once we have established a foothold in the EO edge computing market, our strategy will be to start expanding into more general purpose edge applications in space. From the beginning, we have designed our software and hardware to be scalable and flexible enough to support general purpose computing in space. Eventually, we will have the momentum and proven track record from our machine vision edge computing customers to quickly expand from the \$7.5B EO market [16] into the larger \$1.03T [17] global cloud computing market.

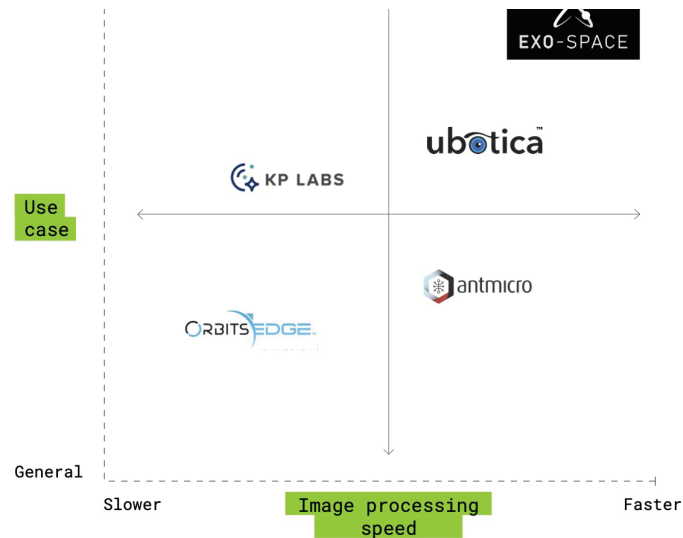
It is also worth noting that the expansion of the commercial space market will go beyond Earth in the next couple of years. The NASA Artemis program is preparing to send humans back to the moon by 2024 and NASA has specifically expressed interest in developing AI at the extreme edge [18]. SpaceX has also announced plans [19] to make regular visits to Mars starting as soon as 2024. Within the next 5 to 10 years, Mars and the moon will increasingly have their own data processing needs, which Exo-Space will be well-positioned to meet.

We will continuously seek out customers with unique data processing needs to expand our software offerings for applications at the Earth, the Moon, Mars and beyond.

### COMPETITION



Offering unparalleled image processing speed and custom use-cases that our competitors can't match.



Exo-Space's key differentiator is that FeatherEdge uses the fastest machine vision processor available on the market and that it is the only system that's designed to integrate with any satellite bus. This makes FeatherEdge the most reliable and flexible machine vision device available for satellites today.

Our biggest competitor is Ubotica (based in Ireland). They built the main processing board for the ESA machine vision mission, [PhiSat-1](#), that launched in September 2020. Other European competitors are: Ant Micro, and KP Labs. Our closest competitor in the U.S. is OrbitsEdge, which focuses on general purpose edge computing in space.

### Customer Feedback and Prototyping

We began the past year by pitching the idea of general purpose edge computing for satellites (essentially the same as what our competitors are currently pitching). The feedback we received was mainly general interest in the idea, without any sort of commitment or follow through from potential customers. Only when we built and started demonstrating our machine vision prototype's functionality did potential customers realize how useful edge computing could be for them. This was one of the biggest takeaways from our prototype development and customer outreach because we found that most space companies had not even heard of edge computing, let alone thought about implementing it into their product offerings. The bottom line is that only once we were able to show a direct use-case and functionality did early adopters start to become interested. Based on the feedback we received from companies in our pilot programs, there are a lot of immediate needs for machine vision at the edge and we are convinced that this is the right entry point for our company.

Customers are enthusiastic about trying out our machine vision platform because they are generating large amounts of high resolution data on orbit and their customers are beginning to look for data from space that contains actionable insight in near real-time. Our customers realize that the commercial market for space data is trending towards an information-as-a-service model. For example, space data users are interested in knowing what type of crop grows within a certain area. It's much more feasible for an onboard AI to detect that than it is for a satellite to send down gigabytes of data to be processed on the ground [2]. The two major issues we are solving for our customers are the bandwidth constraints of sending large amounts of data back to Earth for processing and the time delay (also known as latency) between capturing a photo and making it available to the end user. Our device can process HD video in milliseconds and only draws an average of 9 watts of power, which easily fits into the power budget of virtually all satellites.

### Positioned to Better Serve the Future Space Data Market Growth vs. the Competition

Processing images in space is a technology that will allow Exo-Space to transition into general purpose computing in space faster and more easily than our competitors. This is because our defensible fault tolerant hardware/software architecture already supports ultra-high network throughput and is



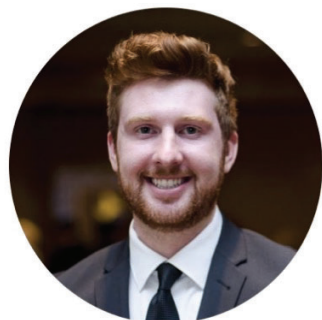
space such as satellite predictive maintenance, support for interplanetary travel and scientific data analysis on orbit.

## TEAM

**An experienced team that has built, designed, and written software for satellites supported by an extended team of technical and business advisors.**

**Jeremy Allam**

- CEO/Co-Founder
- Developed software for satellites at NASA JPL
- Led development of flight software for a Cubesat at The Space Engineering Research Center
- Masters in Astronautical Engineering, USC

**Marcel Lariviere**

- Lead Mechanical Engineer/Co-Founder
- Led structural engineering effort for a Cubesat at The Space Engineering Research Center
- Ride engineer at Disney Imagineering
- Masters in Astronautical Engineering, USC

**Mark Lorden**

- Head of Business Development/Co-Founder
- Led engineering projects at SMP Engineering
- Team lead on Arkisys satellite project
- MBA, Quantic & B.S. Engineering, Caltech



**Dave Barnhart**

CEO of Arkisys  
USC Professor in  
Astronautics  
Darpa Program Manager

**Ed Salam**

Director of Staff  
at USAF Space and  
Missile System  
Center

**Bob Lampi**

Chief Commercial  
Officer at West Coast  
Aluminum &  
Stainless, LLC

**Jim White**

Chief Technology  
Officer at IoTech  
Systems

**Milad Shara**

Patent Attorney at  
Wheatstone IP Law  
Corporation

Our team of expert advisors includes:

- Space pioneers, entrepreneurs, and legal advisors
- Combined 100+ years of relevant industry experience

Executive and leadership positions at the Space and Missile Center (SMC), DARPA, Dell and one of the largest metal suppliers in the world

**Build a strong customer base by first focusing on machine vision applications on orbit, then transition into the larger Global Cloud Computing Market.**

Our goal is to access the \$1.03T global cloud computing market by providing datacenter-scale computing on orbit [17]. We plan to accomplish this by transitioning the FeatherEdge platform beyond machine vision to general purpose edge computing, which will support machine learning, data analytics and cloud computing on orbit. As mentioned in the "Business Model" section, the revenue generated from selling machine vision hardware and software will fund Exo-Space's satellite-as-a-service platform, which is a software/hardware architecture that will allow our customers to "share" resources onboard and use the satellite for only a fraction of the orbit time (i.e. only when it is over their farm, forest, or other area of interest). We plan to launch a constellation of these satellites (anywhere from 10 to 20 satellites initially) in order to provide global coverage and meet peak customer needs.

Our market research has shown that machine vision is the best entry point into the space computing market (See "Competition" section for details on our go-to-market strategy). From the beginning, we have designed our software and hardware to be scalable and flexible enough to support datacenter-scale general purpose computing in space (see "Product" section for more details on the core technology and design).

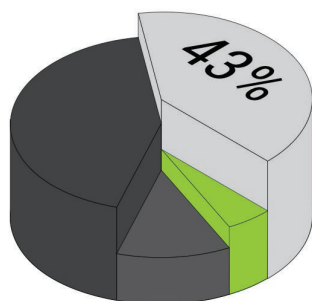
#### USE OF FUNDS

### Space qualification and launch by 2022. Edge Computing Satellites by 2023.

To further develop our capabilities, we plan to expand the team and make key hires in sales, machine vision, edge computing, image processing and space hardware development over the next 12-18 months. This will solidify Exo-Space as an industry leader for on orbit data processing.

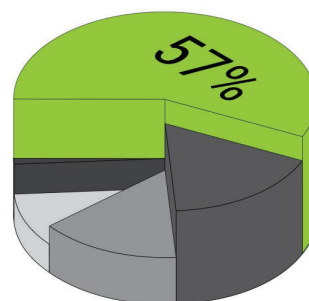
Exo-Space's first priority is to build and qualify a flight-ready device. Please see the graphs below for a detailed breakdown of the funds.

- 43% Software Development
- 40% Manufacture Product
- 12% Company Operations (incl. Officer Compensation)
- 5% Working Capital



**\$25K** Raise Scenario

- 57% Working Capital
- 17% Company Operations (incl. Officer Compensation)
- 15% Rideshare into Orbit
- 10% Software Development
- 1% Manufacture Product



**\$1M** Raise Scenario

## RISKS & DISCLOSURES

### Risks and disclosures that are specific to our business and its financial condition.

1. Exo-Space was recently formed in January 2020. Our current and proposed operations are subject to all the business risks associated with new enterprises. These include likely fluctuations in operating results as the Company reacts to developments in its market, managing its growth and the entry of competitors into the market. We expect to incur net losses until we can establish a consistent base of customers for the Company's product. There is no assurance that we will be profitable or generate sufficient revenues to support our operations.
2. Our ability to continue operations is dependent upon our ability to generate sufficient cash flows from operations to meet our obligations, and/or to obtain additional capital financing.
3. Voting control is concentrated in the hands of the company's Founder, CEO and Sole Director, Jeremy Allam, who holds approximately 78.6% of the outstanding shares of Voting Common Stock of the Company. Subject to any fiduciary duties owed to owners or investors under Delaware law, our CEO may be able to exercise significant influence on matters requiring owner approval, including the election of directors, approval of significant company transactions, and will have unfettered control over the Company's management and policies. You may have interests and views that are different from our management. For example, management may support proposals and actions with which you may disagree with. The concentration of ownership could delay or prevent a change in control of the Company or otherwise discourage a potential acquirer from attempting to obtain control of the Company, which in turn could reduce the price potential investors are willing to pay for the Company. In addition, our CEO could use his voting influence to maintain the Company's existing management, delay or prevent changes in control of the Company, or support or reject other management and board proposals that are subject to owner approval.
4. Our principal product relies on new developments in artificial intelligence and edge computing that has not previously been integrated into satellite construction. We believe this to be a novel use of AI technology and could be advantageous to our target customers. However, as a novel use of AI technology, we may encounter reluctance on the part of our target customers to change how they are doing business. If we are not able to convince our target customers of the benefits of our new product, we may not be successful.
5. Our FeatherEdge product is still in development with our three pilot customers and not yet ready for full scale rollout. Our development timeline could encounter unexpected challenges or delays

operations, which may result in reducing the value of your investment.

6. Our future success depends on the efforts of a small number of key personnel, including our Chief Executive Officer, Jeremy Allam, and Lead Mechanical Engineer, Marcel Lariviere, with respect to development of the Company's core product, as well as our Chief Business Development Officer, Mark Lorden for creating a customer pipeline for the Company. Due to our limited financial resources and the specialized expertise required, we may not be able to recruit the individuals needed for our business needs. There can be no assurance that we will be successful in attracting and retaining the personnel we require to operate and be innovative.
7. We do not have any patents on our technology, and we will be required to share our technology with our customers for them to integrate into their satellites. This means that what we develop will be accessible to others and could allow for third-parties to reverse engineer our work. If the Company is not sufficiently aware of how its product is being used, or does not sufficiently protect its rights under any agreements with customers to prevent third-party misuse, our financial results may be negatively impacted.
8. Our business model is dependent on our target customers being able to finance their own operations and interest in spaced based applications for new technologies. Our business model is thus dependent on national and international economic conditions. Adverse national and international economic conditions may reduce the future interest of our target customers, which would negatively impact our revenues and possibly our ability to continue operations. These fluctuations may be significant and could impact our ability to operate our business.

For full/other risks please see Form C document below.

#### DOCUMENTS

 Form C

 Security Document



**Exo-Space**

Sat Applications / Connectivity

## On-orbit edge computing solutions

Exo-Space builds add-on AI capabilities for Earth Observing Satellites. Our main offering is a hardware device that connects to imaging satellites and runs the raw image data through machine vision algorithms before the data is sent to the ground.

**0% FUNDED | 1 INVESTORS**

SIGN UP TO INVEST IN EXO-SPACE

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