



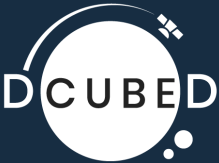
DCUBED

Do Big Things in Space

www.dcubed.space

Dr. Thomas Sinn ● CEO and Founder ● Thomas.Sinn@dcubed-space.com

Dcubed Fast Facts

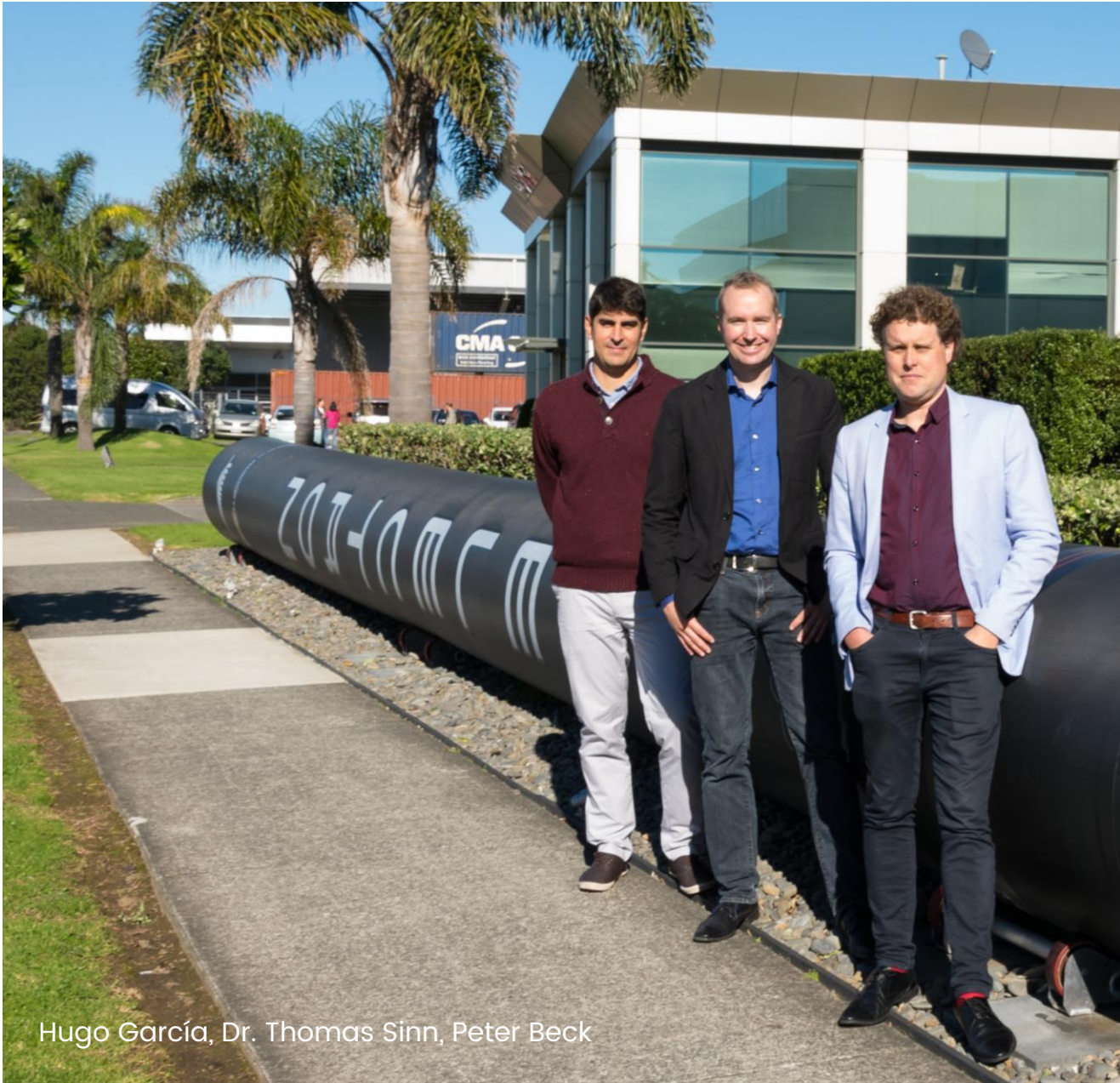


LOCATIONS
FOUNDED
TEAM

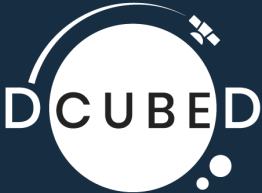
Germany and USA
2019
40+ and counting

FLIGHT HERITAGE
CUSTOMERS

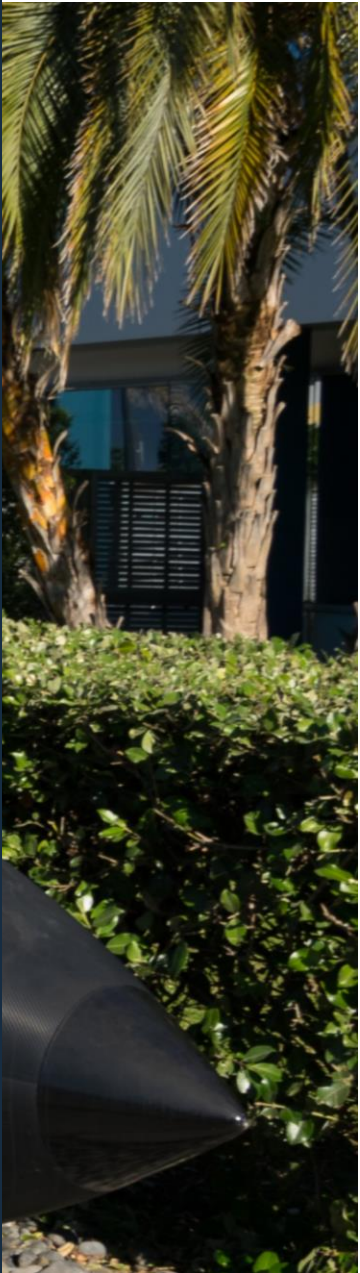
30+ products in space
In 20+ countries across 4 continents



Hugo García, Dr. Thomas Sinn, Peter Beck



Our Founding Story



Dcubed Advantages



Space-proven products



Ease of use, from usage to reset



Resettable, hundreds of times



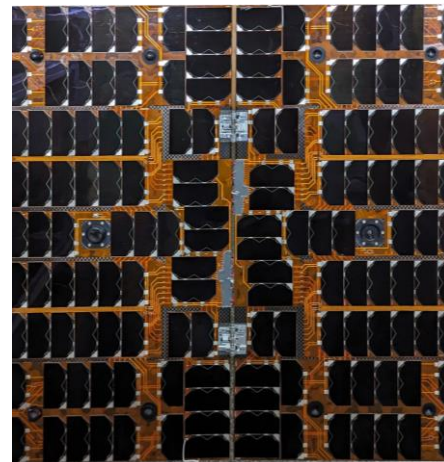
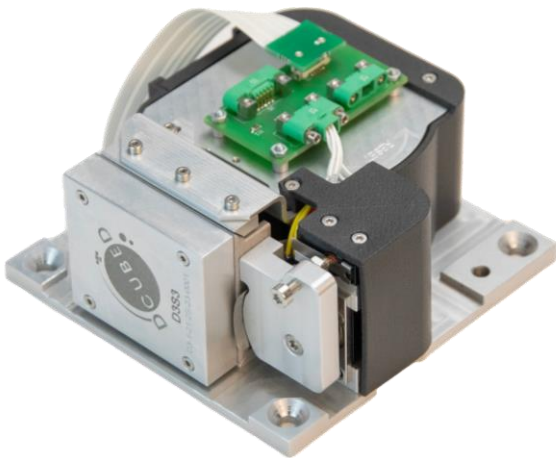
Ultra **low shock**

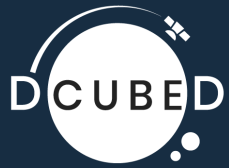


100% electrical and SMA **redundancy**



Patented **technologies**





Accelerating Space Missions



Easy e-commerce purchasing



Available off the shelf, no minimum order



Resilient supply chain



Fast and global delivery

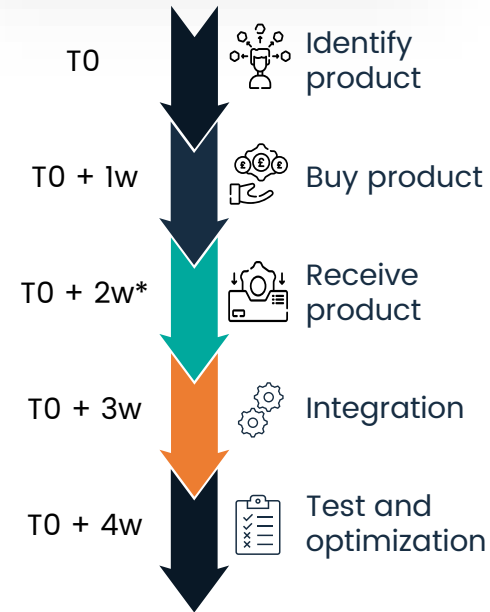


Guaranteed **customer success**



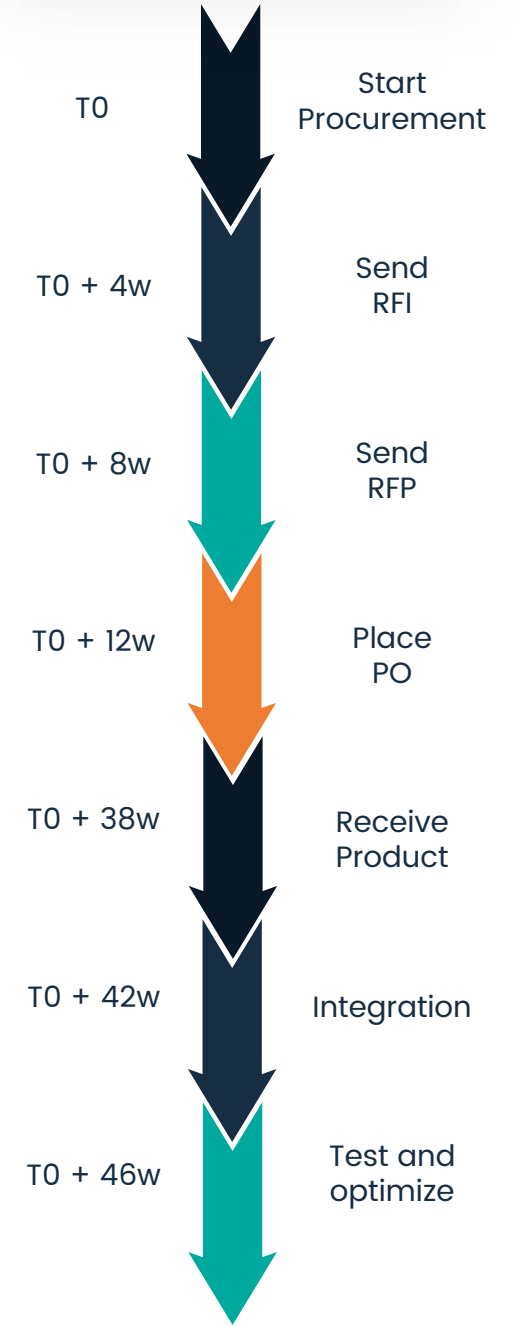
No export control

Dcubed's Timeline



*with fastest expedited option






Standard Timeline



Shape-Memory Release Actuators



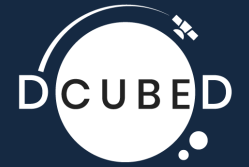
| Product |
|-------------------|
| Size & Mass |
| Tested Load |
| TRL |
| Temperature-Range |
| Field-Resettable |
| Leadtime |

| Release Nuts | | | Pin Pullers | |
|---|---|---|---|---|
|  |  |  |  |  |
| Nano Release Nut SmartPack nD3SP | Nano Release Nut nD3RN | Micro Release Nut uD3RN | Nano Pin Puller nD3PP | Micro Pin Puller uD3PP |
| 74x35x4mm, 27grams | 17x17x17mm, 12grams | 25x25x25mm, 40grams | 17x17x17mm, 12grams | 25x25x25mm, 40grams |
| Axial Load: 200N | Axial Load: 380N | Axial Load: 4kN | Shear Load: 50N | Shear Load: 250N |
| 8 (9 in 2024) | 9 | 8 (9 in 2024) | 9 | 7 (9 in 2024) |
| -65°C to 75°C (Operational) | | | | |
| 150+ times | | | | |
| 6-12 weeks* | | | | |

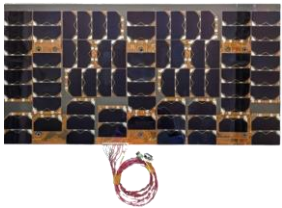
*depending on order intake

Check out our actuator videos [here](#).

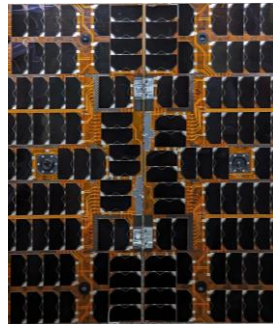
Nano & SmallSat Solar Arrays



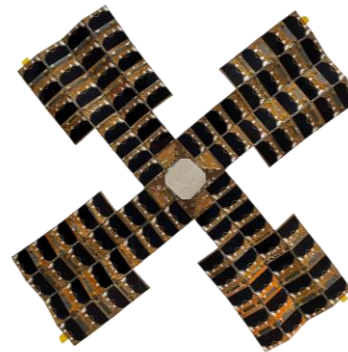
BODY MOUNTED
(80-400W)



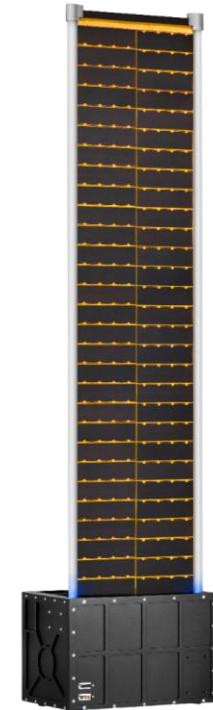
DEPLOYABLE
(120-600W)



ORIGAMI
(100-400W)



IN-SPACE MANUFACTURED SA
(500-2000W)



90% cost reduction
for Blanket Solar Arrays

33% less mass/area
enabled by flexible PV

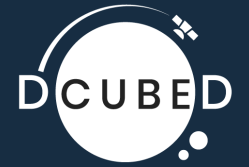
31% less leadtime
due to
modularity

42% higher power/mass
enabled by 3D printing

45% more power/volume
enabled by 3D printing

100% scalability
for any SA

Time for a paradigm shift



PROBLEM

Current solar array solutions can not be scaled



Body mounted panels

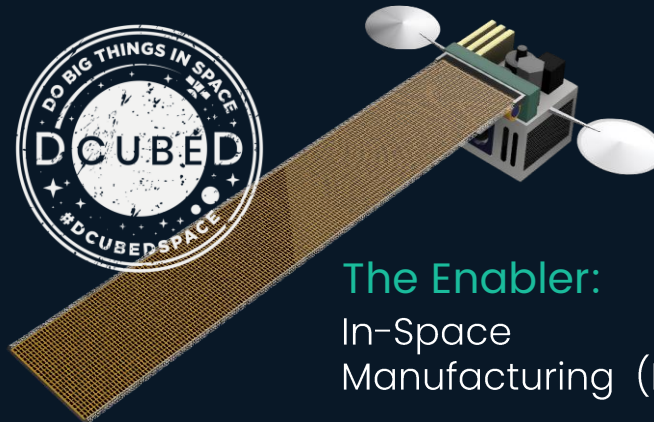
Only a few hundreds of Watt possible



Rigid folded panels

SOLUTION

Combining advanced flexible solar arrays with disruptive new tech



The Enabler:
In-Space
Manufacturing (ISM)

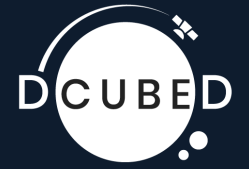
Our Goal:

is to provide 1-10kW solar arrays
with a cost of <50\$/Watt
(currently its ~5.000\$/Watt)



Two
orders of
magnitude
more
affordable

Our In-Space Manufactured Solar Array: supercharging NewSpace satellites



DCUBED's EXISTING PRODUCTS:



Origami
Solar
Arrays

Proprietary deployable
technology.

solēstīal



Release
Nuts & Pin
Pullers

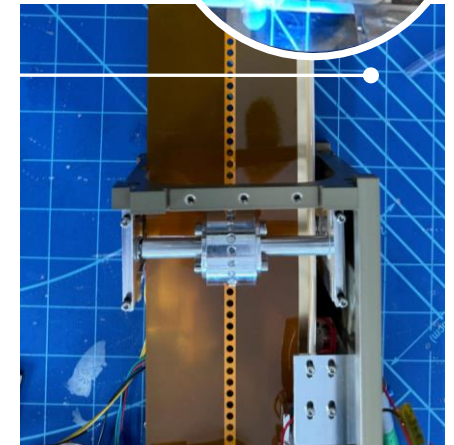
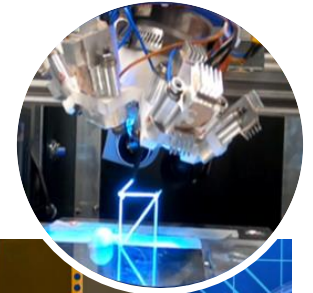
Patented mechanical
switches.



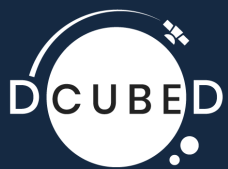
1-10
Kilowatt
Solar
Arrays

THE GAME CHANGER /
ENABLER:

In-Space Manufacturing (ISM)



FIRST IN
THE WORLD



Case Study: Redwire Space



Redwire Space is a global space infrastructure and innovation company enabling civil, commercial, and national security programs.

DCUBED SOLUTION

Dcubed COTS nD3RN provided an 8-week order to delivery process that helped Redwire meet tight mission deadlines.

USE CASE AND RESULTS

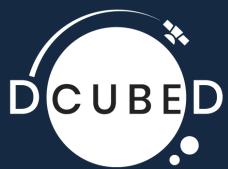
Dcubed cut four months off the traditional design, order, and delivery process giving Redwire increased preparation flexibility, while supporting the company's ultimate mission success.



"Redwire's collaboration with Dcubed has led to faster development cycles for us and our customers. Since their release actuators are resettable and testable hundreds of times, we can keep extras on hand for new projects. Dcubed's products are incredibly user friendly!"

- Cody Griffiee, Principal Engineer, Redwire





Case Study: Atomos Space



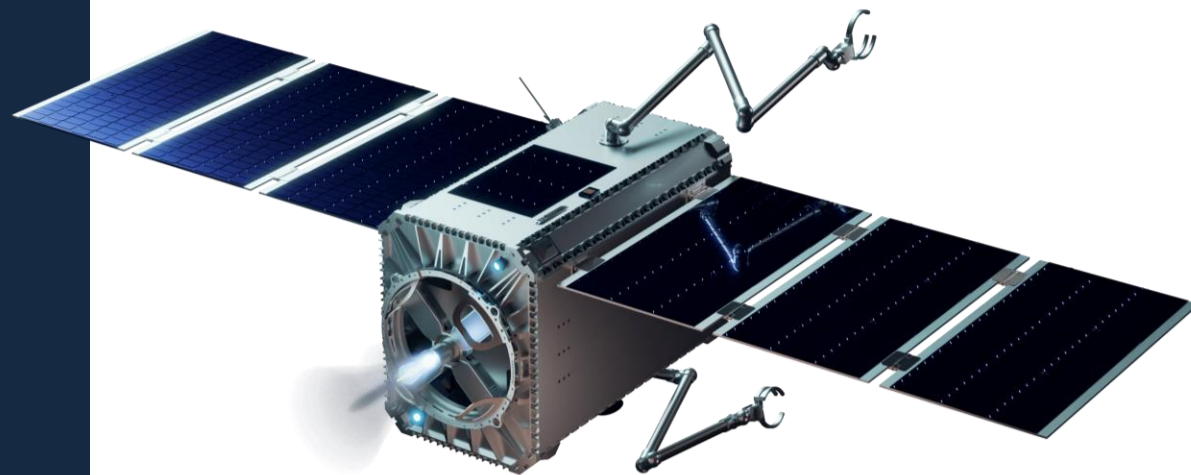
Atomos Space is a Colorado-based spacetechnology company developing orbital transfer vehicles to support space ridesharing and reduce exploration costs.

DCUBED SOLUTION

Atomos used Dcubed's 500W SmallSat solar arrays to power in-space activities.

USE CASE AND RESULTS

Dcubed's solar arrays reduced lead time by 33%, while enhancing design flexibility due to the modular COTS approach, providing an additional three months of schedule margin for Atomos Mission-1.

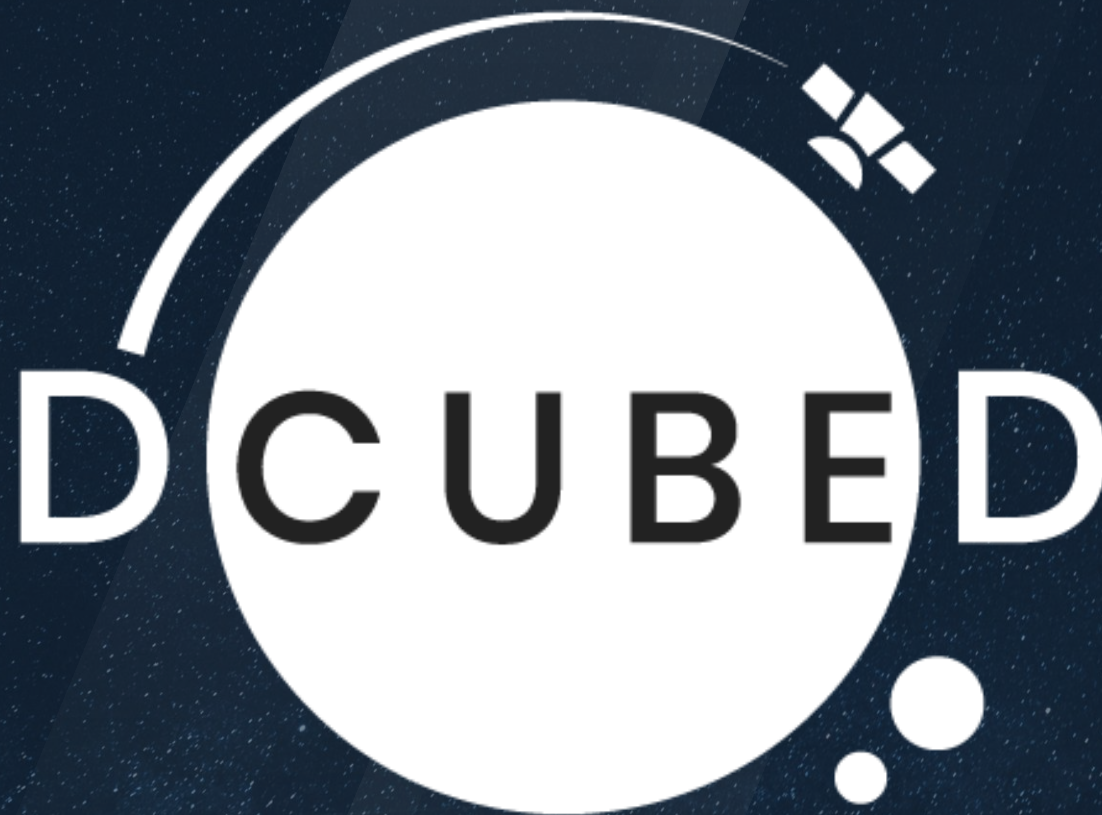


"Dcubed's ESPA-class solar arrays are a great combination of robustness, price, and performance, and importantly for us, they have been agile and able to meet tight schedules and changing conditions."

- Vanessa Clark
CEO & Co-Founder, Atomos



GET TO SPACE FASTER,
CHEAPER, AND BETTER
WITH



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