



ANTARIKCHYA
अन्तरिक्ष प्रतिष्ठान नेपाल

Nepal's Structured Four-Phased, T-Shaped Higher Space Education Program Funded Through PPP



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01.12.2021

Antarikchya Pratisthan Nepal
[Space Foundation Nepal]

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Agenda



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- Introduction to Organization
- Phased Program
- Public Private Partnership Model

Antarikchya's Introduction



ANTARIKCHYA

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9 months in operation
~6 year of R&D

Non-Profit

SUPPORTED BY:



WORKED WITH (NATIONALLY):



Antarikchya's Colab Infrastructure



Kathmandu University high school
Space Systems Laboratory, Dhulikhel



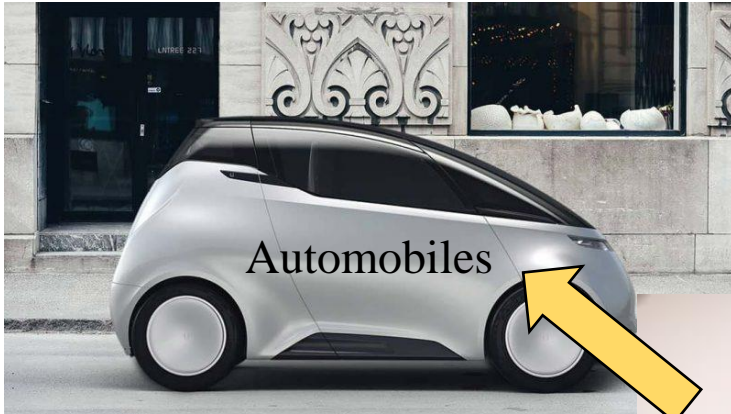
Nepal academy of science and technology
Space Systems Laboratory, Lalitpur



2021-12-16



Satellite Design Process: Xtreme Engineering



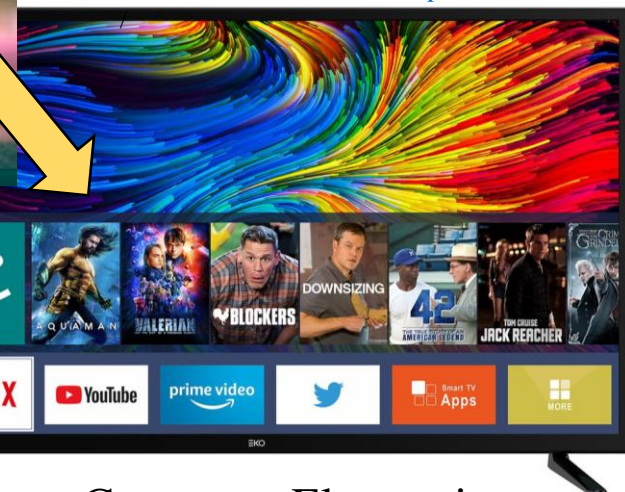
<https://thedriven.io/2018/09/05/uniti-electric-car/>



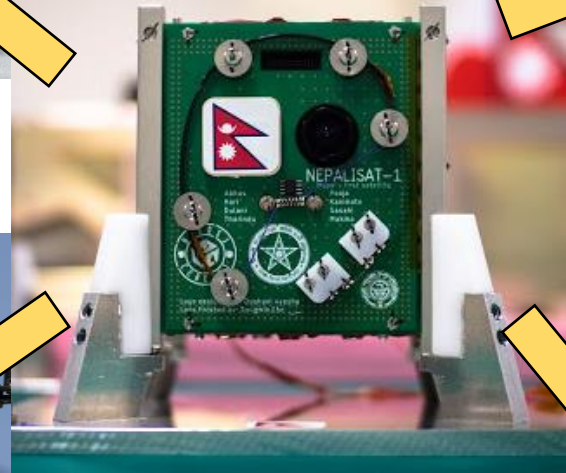
<https://www.bigw.com.au/product/eko-32-smart-hd-led-tv-with-netflix/p/63628/>



Apps



Consumer Electronics



Satellite
Extreme Training



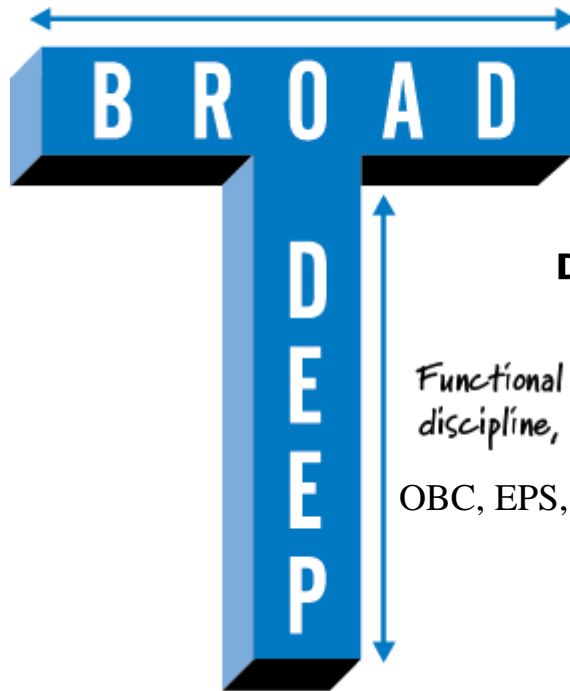
<https://www.geospatialworld.net/blogs/how-drones-are-changing-the-face-of-retail-sector/>

2021-12-16

Structured Project Based Learning (S-PBL)

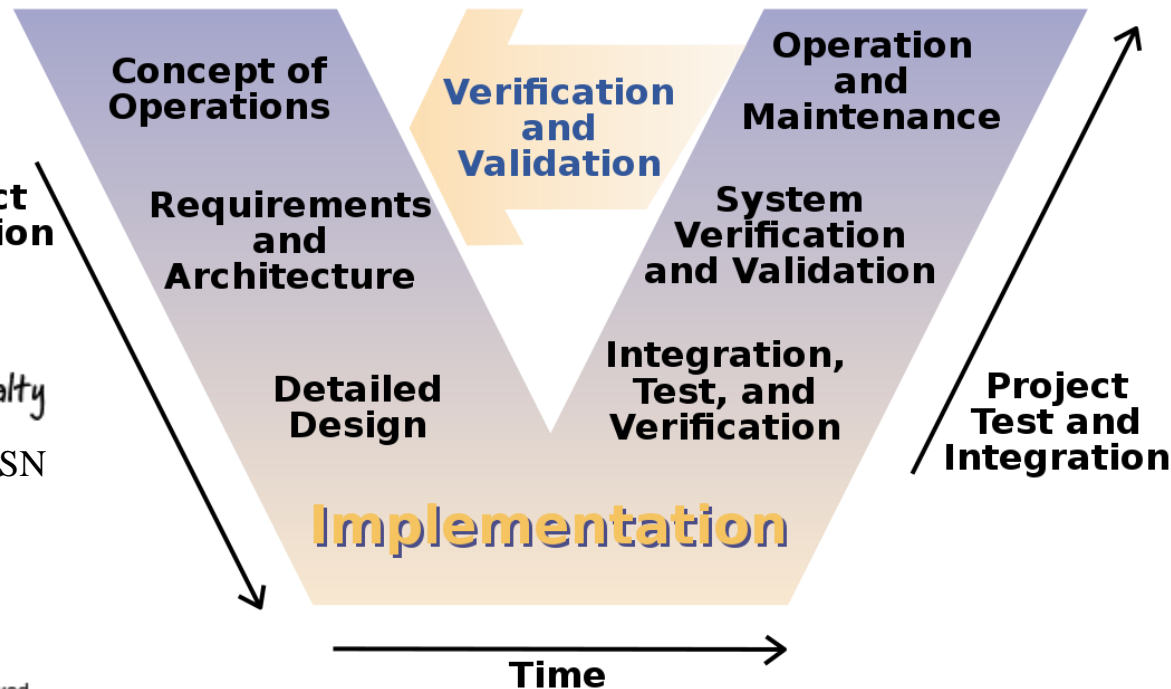


PCB, Coding, CAD, Soldering
*Ability to work outside
of core area*



Project Definition
*Functional area,
discipline, or specialty*
OBC, EPS, STR, MSN

Triple T Standard: Test, Test, Test
Product Development and Marketing



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<https://innolution.com/resources/glossary/t-shaped-skills>

Understanding: Orbital Mechanics, Dynamics

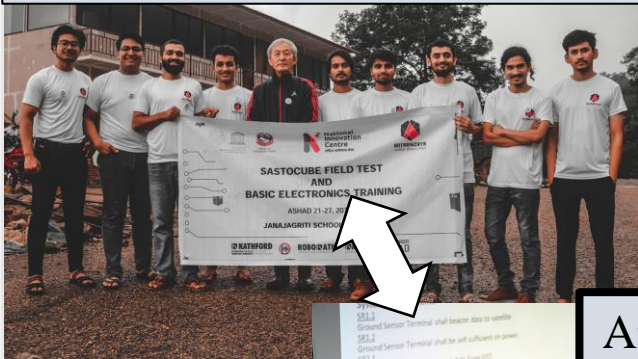
Space Environment Interactions (Radiation, Vacuum, Thermal)

Space Safety Standards, Detailed Documentation

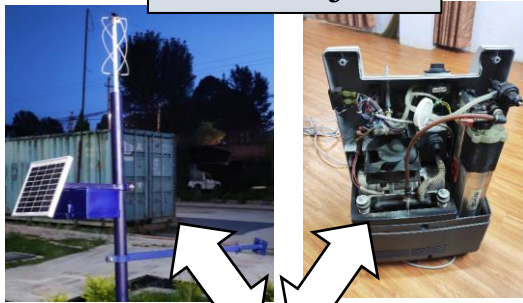
Telecommunications

Antarikhya's Push for Satellite Education

Satellite Technology Outreach in Rural Nepal



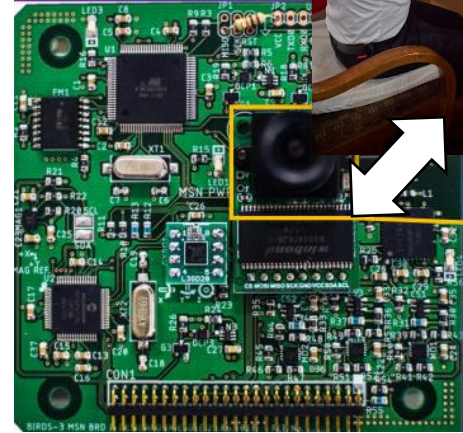
Side Projects



School Level Satellite Training



Antarikhya Satellite Research Fellows



Satellite Hardware/Software



Government Discussion on Satellite Technology

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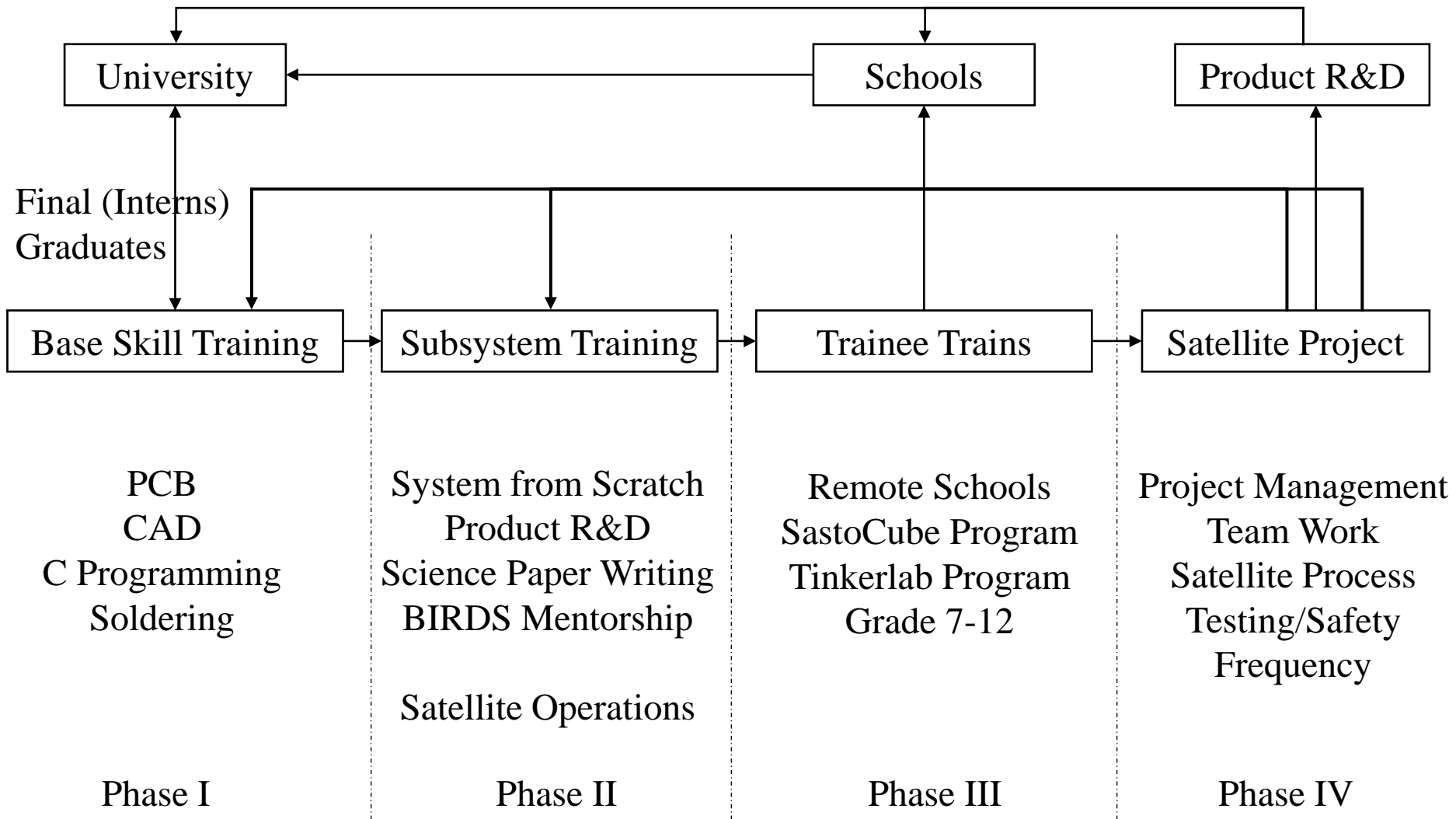
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- **Phased Program**
- Public Private Partnership Model

Phased Program Block Diagram

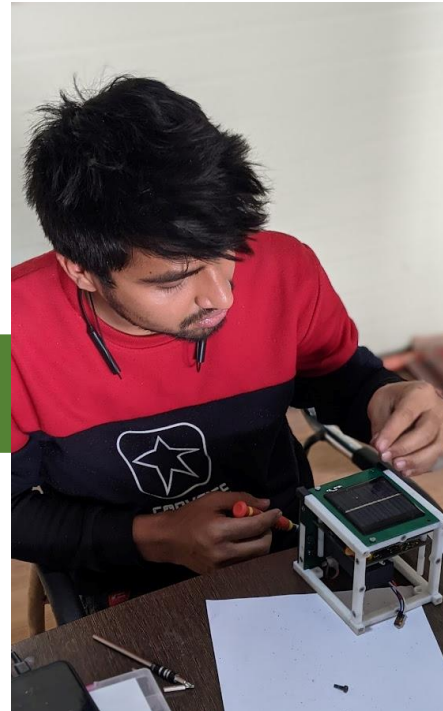


Cyclic Approach for Space Engineering



JUNIORS

SENIORS



School Students

Middle Path

University Students/Graduates

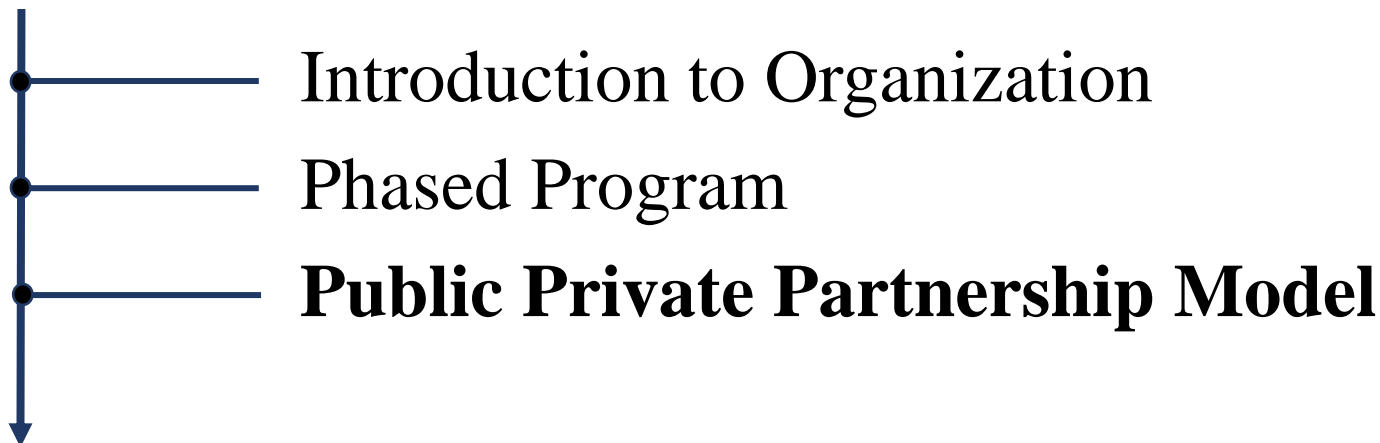
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Mini-BIRDS High School Satellite



*The World's First
Cubesat Constellation
by High School Students*



Mini-BIRDS project

PPP Model Example Overview



Spin-off

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Fund/International Relations
Coordination

Coordination



MoEST
Finance
Communications
Foreign Affairs

Supervision
Project Management



Outreach Center

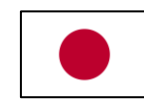
Space Development Infrastructure
Inter School Coordination

Government Schools

Azad, Sanjibani, Chaitanya



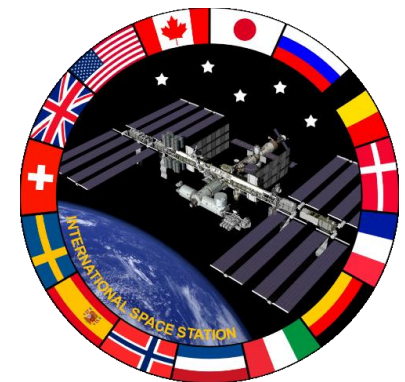
Banks/Insurance



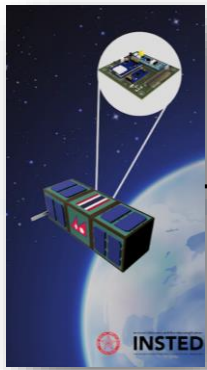
INSTED
International Institute of Space Technology for Economic Development

N3SPACE

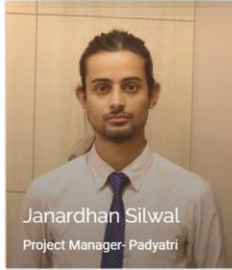
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Team Structure Overview



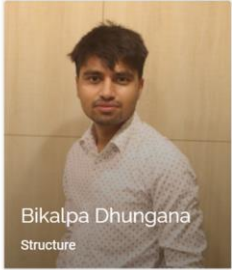
Core Team



Janardhan Silwal
Project Manager- Padyatri



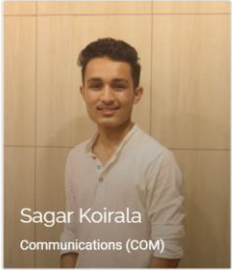
Devraj Pant
Electrical Power System (EPS)



Bikalpa Dhungana
Structure



Prajan Shrestha
Machine Learning



Sagar Koirala
Communications (COM)



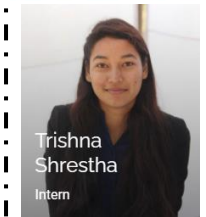
Sirash Sayanju
Ground Station



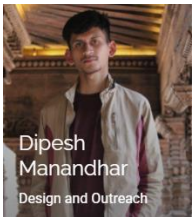
Anuja Shrestha
Intern(3D Design)



Eliza Sapkota
Intern (ADCS)



Trishna Shrestha
Intern



Dipesh Manandhar
Design and Outreach

Interns

School Team



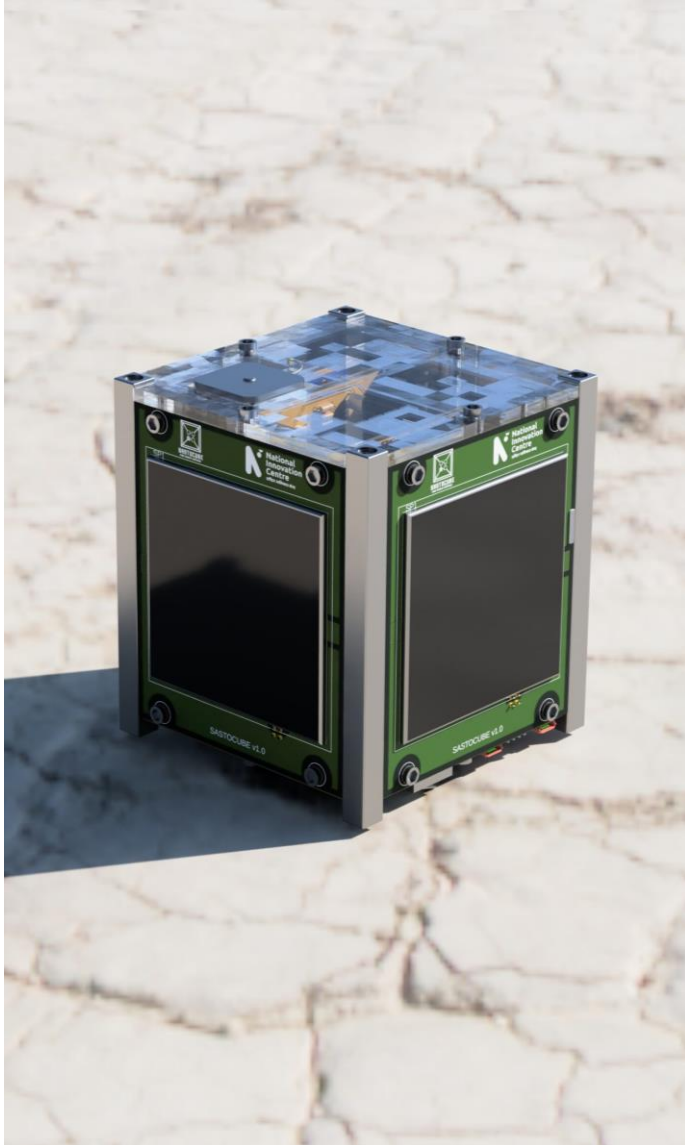
Host

1/3rd Government

2/3rd KUHS



Product R&D: SastoCube



PaperCube



SastoCube Starter



SastoCube Adventure



CSR





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Thank You

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