

UNISEC THAILAND ASSOCIATION

สมาคมนักศึกษาวิศวกรรมอวกาศไทย

Partners















Scope of Partners Collaboration

goal: Develop Thailand together toward a sustainable future

















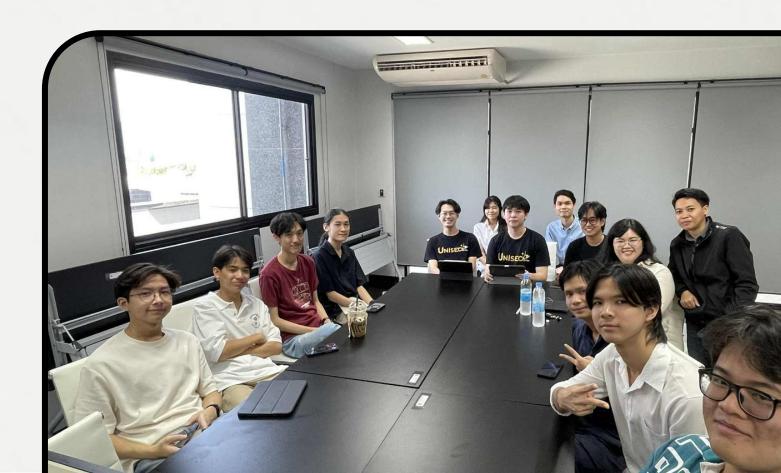


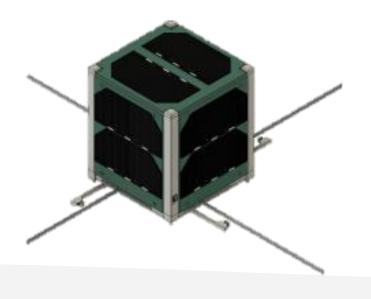


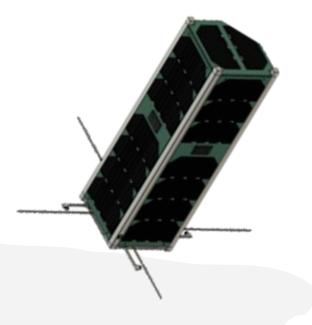
Space Situational Awareness













INSTED @ KMUTNB From Satellites to Mars Rover

From LowEarth Orbit to the surface of Mars INSTEDexplores space technology stepbystep

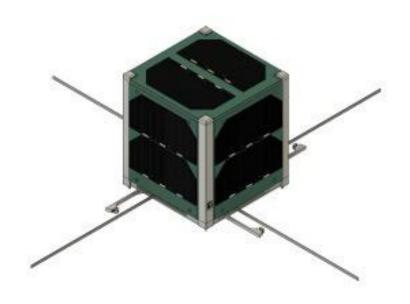




สถาบันเทคโนโลยีอวกาศนานาชาติเพื่อการพัฒนาเศรษฐกิจ (สทอศ.)

International Institute of Space Technology for Economic Development

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CUBESAT

PURPOSE

PAYLOAD

TRL

OWNER

FUND

ORBIT

LAUNCH

KNACKSAT-1

Technology Demonstration

Communication, Imaging, MTQ, De-Orbit, COTs

4-6

KMUTNB

NBCT

Low Earth Orbit (LEO)

SpaceX Falcon 9 (December 3, 2018)









3U

KNACKSAT-2

Research & Development (Multi-Payload)

Imaging, APRS, IoT, ADCS, UV

4-6

KMUTNB, INSTED, NBSPACE

JAXA, KYUTECH

Low Earth Orbit (LEO)

J-SSOD, JAXA, KYUTECH (Q1, 2025)











2U







PURPOSE

PAYLOAD

TRL

OWNER

PARTNER

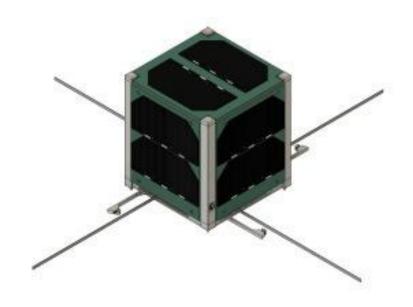
ORBIT

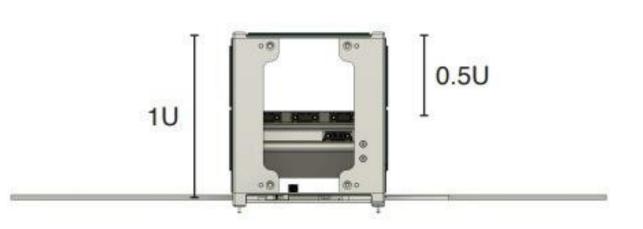
LAUNCH





10





CUBESAT

PURPOSE

PAYLOAD

TRL

OWNER

FUND

ORBIT

LAUNCH

KNACKSAT-3

Commercialization

EPS, OBC, COMM, Structure, Payload (Camera)

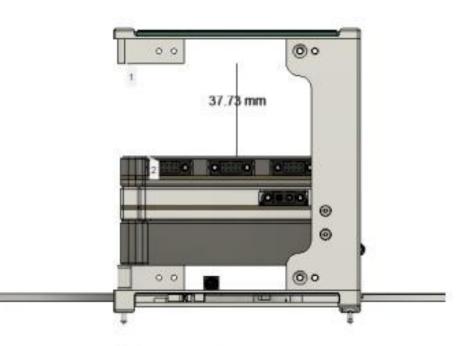
7-9

KMUTNB, INSTED, NBSPACE

Fundamental Fund (FF)

Low Earth Orbit (LEO)

TBD







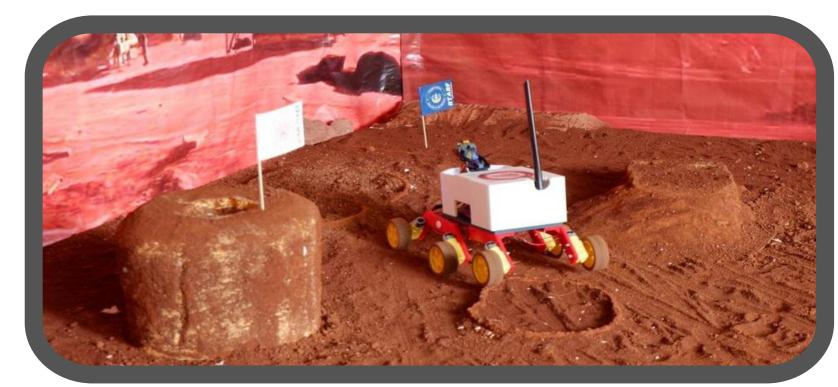




Mars Rover Simulator (Driving System)

The MarsRoverSimulator(DrivingSystem)successfully demonstrates the challenges and solutions of operating a Mars rover inharshterrain. This interactive tool has valuable applications in educational settings and will contribute to future Mars missions.

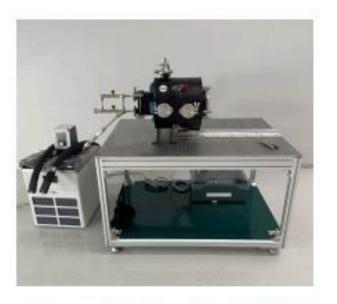




Testing Facility (ISO 19683)



Thermal Vacuum



Thermal Vacuum (Mini)



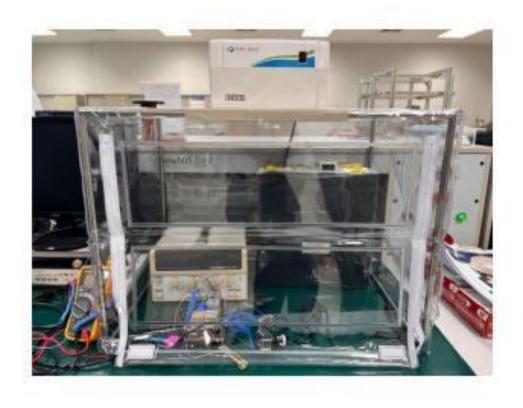
Thermal Cycle



Spectrum & Network



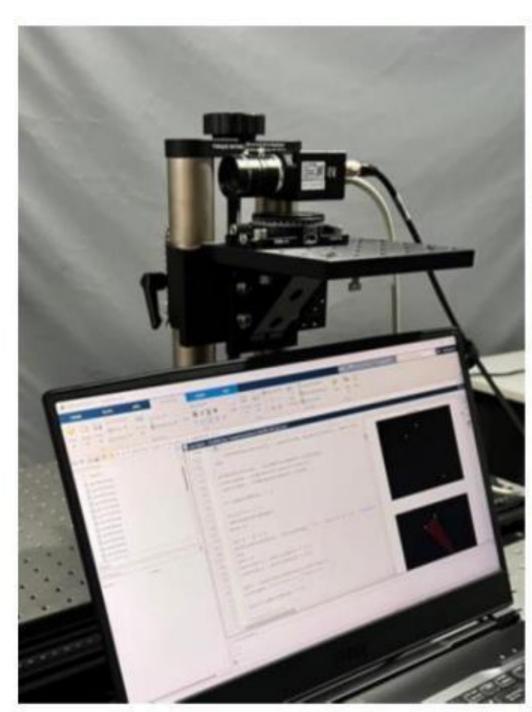


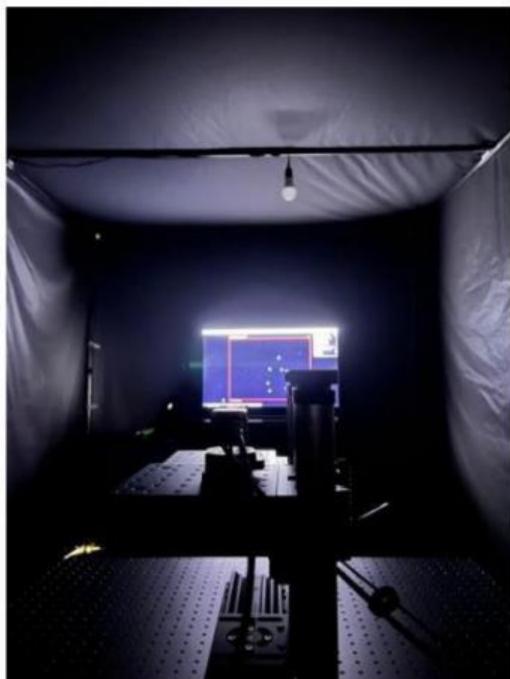


Helmholtz Cage

Auto balancing air bearing

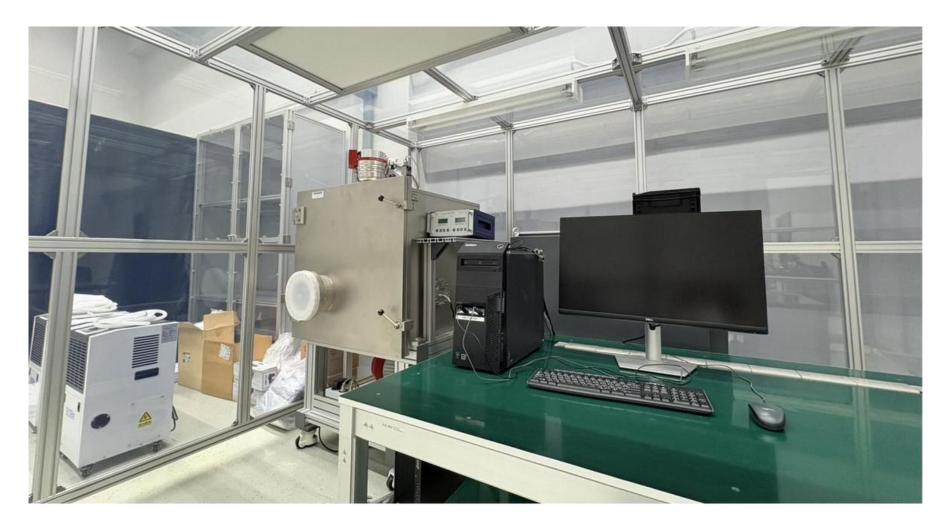
Clean Booth





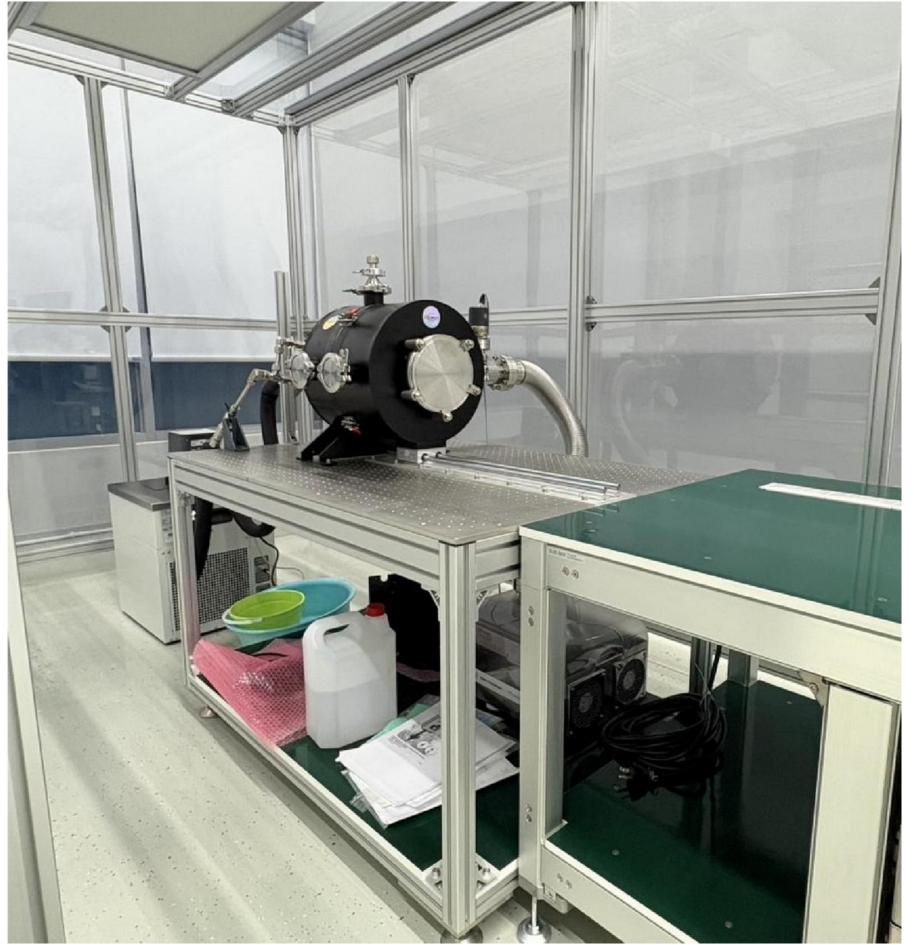


Star Tracker & Optical Testbed





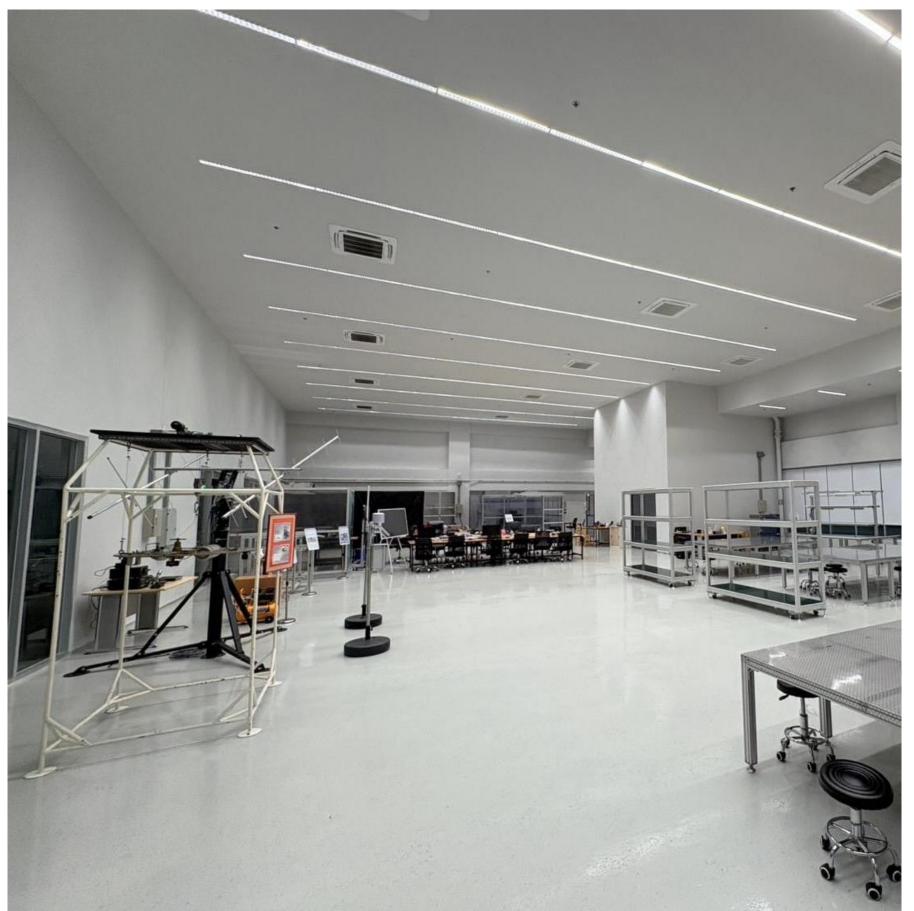






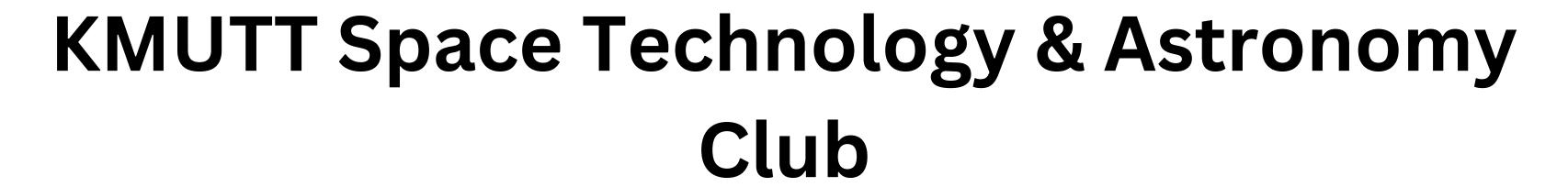








Astronergy^{Lab} 🥶 UNIS













Objectives

- 1. To serve as a meeting place for students and staff of King Mongkut's University of Technology Thonburi who share an interest in space technology and astronomy.
- 2. To promote the exchange, dissemination, and further development of knowledge in space technology and astronomy among students and staff of the university.
- 3. To support and encourage participation in space technology and astronomy competitions from the university level to the international stage toward academic excellence.
- 4. To foster and support activities related to space technology and astronomy both within and outside the university.
- 5. To enhance the university's reputation in the fields of space technology and astronomy at the national level.





Participate in IREC





January 10, 2025

TO WHOM IT MAY CONCERN,

The Experimental Sounding Rocket Association (ESRA) hereby invites

Team # 307 Team Name King Mongkut's University of Technology Thonburi

to participate in the International Rocket Engineering Competition (IREC), hosted by the Experimental Sounding Rocket Association (ESRA), a non-profit organization that fosters and promotes engineering knowledge and experience in the aerospace field.

The IREC invites over a hundred and seventy university teams from around the world to compete at the IREC

This invitation includes all registered student team members (listed below), including faculty representatives,

This competition takes place annually and provides student teams the opportunity to present their research in an academic conference, discuss their designs in a public setting, demonstrations and displays of their projects during poster sessions, and the once in a lifetime opportunity to launch their team's project rocket. ESRA and its many sponsors look forward to cheering the students on as they gain valuable experience and gain unforgettable memories. List of participating team members on following page:

Details for the International Rocket Engineering Competition (IREC); Event Hosted by: Experimental Sounding Rocket Association Dates for event: June 9, 2025 - June 14, 2025

Andrew Berger Digitally Signed by

Andrew C. Berger Executive Director Experimental Sounding Rocket Association

execdir@esrarocket.org



Experimental Sounding Rocket Association 839 Contennial Way, STE 220, Lansing, Michigan, 4891 www.soundingrocket.org









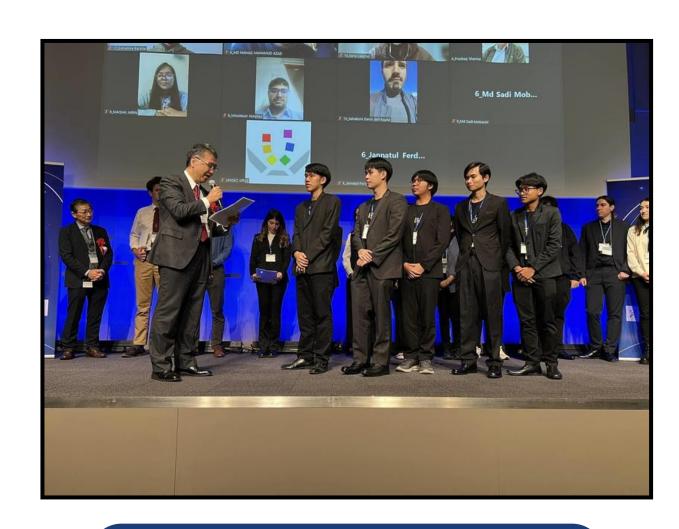














SPACE QUEST 2024 Organized: KMITL

Title: KMUTT Nano-Sat Propulsion Team (KSPT)

SCHOOL ประกาศผลทีมที่ผ่านเข้ารอบ 18 ทีม ตัวแทน สถาบัน/โรงเรียน โรงเรียนกำเนิดวิทย์ มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี ไฮโดรสเตลลาร์ (Hydro Stellar) จฬาลงกรณ์มหาวิทยาลัย สาหร่ายทะเล ลดความเกเรของชายหาด จุฬาลงกรณ์มหาวิทยาลัย อินเฟอร์โน่.จี มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี ดาวเทียมทะเลใส วิศวะขอบตาดำ โรงเรียนราชวินิตบางแก้ว สับปะรถ สถาบันเทคโนโลยีพระจอมเกล้าเจ้าคุณทหาร นิวคัมเมอร์ กลุ่มระบบฝังตัวทางกล จูเนียร์เอกซ์ (MESG_JuniorX) มหาวิทยาลัยศิลปากร ระบบฝั่งตัวทางกล แซททัลใลท์ (MESG_SATURNLIKE) มหาวิทยาลัยศิลปากร วิทยาเขตพระราชวังสนามจันทร์ โรงเรียนสาธิตมหาวิทยาลัยราชภัฏนครปฐม เจ้าเสมห์ โรงเรียนยพราชวิทยาลัย โรงเรียนปิยะมหาราชาลัย ซู-ซู-ซู-ซุปเปอร์โนวา CUBESIT NONG CUBESAT โรงเรียนสาธิตจุฬาลงกรณ์มหาวิทยาลัย ฝ่ายมัธยม นั่งไฟ (BUNGFAI) โรงเรียนสรวิวัฒน์ มหาวิทยาลัยเทคโนโลยีสรนารี โรงเรียนมหิดลวิทยานสรณ์ กว้างคูณยาวคูณสูง โรงเรียนอัสสัมชัญสมุทรปราการ

SCHOOL SATELLITE Competition 2024

Organized : GISTDA Title : ดาวเทียมทะเลใส

Mission Idea Contest #8 Organized: UNISEC Title: Specify Animals Location Via Sound

(SALVS-01)







Activities







KMUTT Open House 2025 Organized : ME KMUTT Title: KMUTT Open House 2025

Rocket fuel Development Organized: KMUTT X UNISEC THAILAND







Furture Plan



Spaceport America Cup 2026



Tech-Astro Camp Educational Camp on Space Technology and Astronomy



UNISEC x KMUTT

UNISEC-Th Meeting Forum x KMUTT "เด็กไทยอย่างไร"

Asst. Prof. Jakrapop Wongwiwat, PhD.



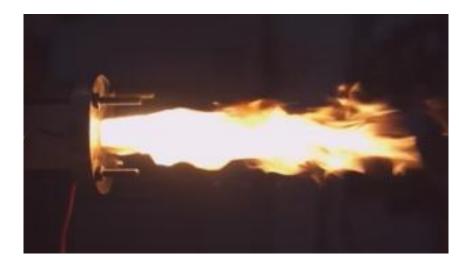


Thruster for Space Applications

Monopropellant Micro Thruster

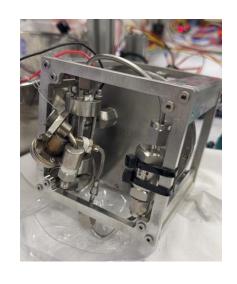




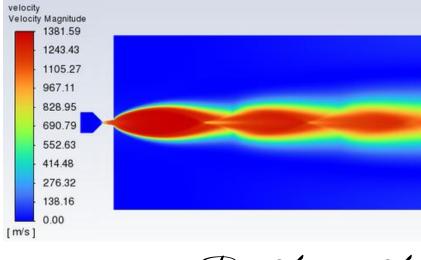


CubeSat Thruster Unit

Nozzle Design









Per Aspera Ad Astra









Activities







SPACE QUEST 2024 BY NT SATELLITE



INTERNATION SPACE CHALLENGE 2024





Activities





Rocket fuel Development launch stand Organized : UNISEC THAILAND





Current Operational Plan



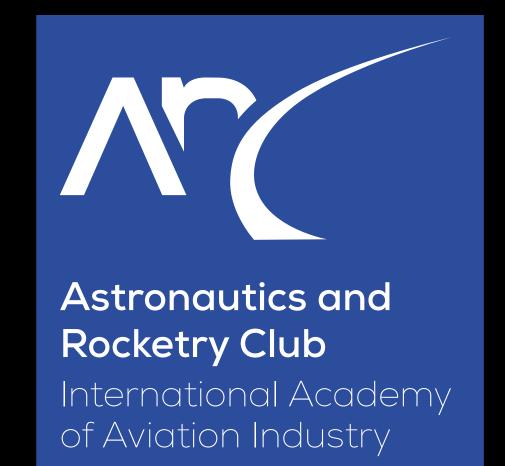
IREC (Intercollegiate Rocket Engineering Competition)



NT Space Quest 2025



Astronautics and Rocketry Club



What we assist





What we assist



(1) GISTDA OOOO & A THE CUBESAT QUEST EXPLORING THE BEYOND

รายชื่อทีมที่ผ่านรอบคัดเลือก

- 1. RUAMMID
- 2. SPACEAI-COLONY
- 3. นกาส่องอธรรม , OUTLAW HUNTERS
- 4. IWANTSPACE
- 5. ของหวานสจล.
- 6. คิวบ์แสทพี่คิวบ์สิท CUBESAT P CUBES
- ี่ 7. นัทและผอวเพื่อน (NUT AND FRIENDS)
- 8. มา 5 ทำ 4
- 9. ໂນເຣນ MOREN
- 10. วีว้อนสลีป (WE WANT SLEEP)
- 11. โต้รุ่ง UNTIL DAWN
- 12 ผู้หยั่วรู้แห่วธรณี GEOMYSTICS
- 13. MAGNETO
- 14. ນັ້ນໃຟ (BUNGFAI)
- 15. ข้าวยำใก้แซ่บบร้านใก่มาร์คสาขาหลังมอ
- 16. SUT.LIDARS
- 17. หนุ่มดาวเทียม
- 18. GSTN X 3D
- 19. RAIN EYE
- 20. สมาคมรวมพลัวคนดีสังคมแห่งประเทศใทย

- 21. ดารามาแว้ว
- 22. SKYSENTINEL
- 23. D2D
- 24. FIREFOUND
- 25. PER ASPERA AD ASTRA
- 26. ARM RAK MHAA

- (STAGGERING INTO OUTER SPACE)
- 30. เบญจัน อวกาศ
- 31. unos (SPACE WANDERER)
- 32. S CURVE
- 33. UTD-GUKGUKKAI
- 34. SG (SKY GUARD)
- 35. FORESTSENSE-CUBE







ติดต่อสอบดามเพิ่มเติมที่ 👍 SPACE INSPIRIUM 👠 063-2179019 (พี่ยีนส์)

What we assist



WELCOME FROM THE CHAIRS

On behalf of the Innovation Aviation & Aerospace Industry - International Conference 2025 Organizing Committee, we are pleased to announce our third Innovation Aviation & Aerospace Industry - International Conference 2025. The conference is organized by the International Academy of Aviation Industry (IAAI), King Mongkut's Institute of Technology Ladkrabang (KMITL) with special partner: Pilot Hub of Talents in Space Scientific Payload-NARIT and others, will be held as a three-day event in Pattaya, Thailand, from November 26th-28th, 2025. The conference has a main focus on "Aerospace and Aviation Symposium."

IAAI POSTER SUBMISSION

The poster session of IAAI 2025 is now open for submissions, offering an excellent opportunity to showcase your innovations in aviatiom and aerospace. The session will be held on the morning of 28 November 2025.



- If your poster is "accepted", you will receive an email (before 19 October 2025) to prepare a full A0-size poster and bring it for presentation during the IAAI Conference.



CUHAR 2025-26



CURSR

Chulalongkorn University Research Sounding Rocket

CUFA

Chulalongkorn University Fixed-wing Aircraft

XSRT

Experimental Sounding Rocket Team



CIRSR

Chulalongkorn University Research Sounding Rocket







CURSR-W





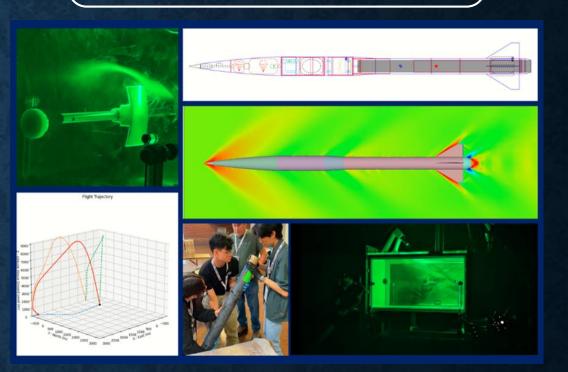
Avionics Subsystem



Structure Subsystem



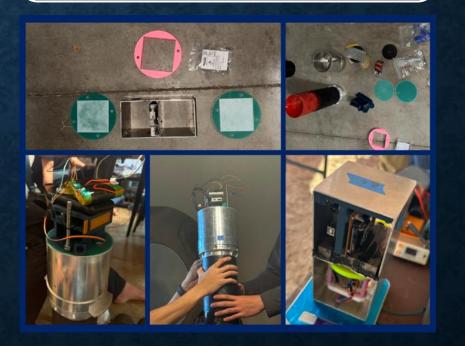
Flight Dynamics
Subsystem



Recovery Subsystem



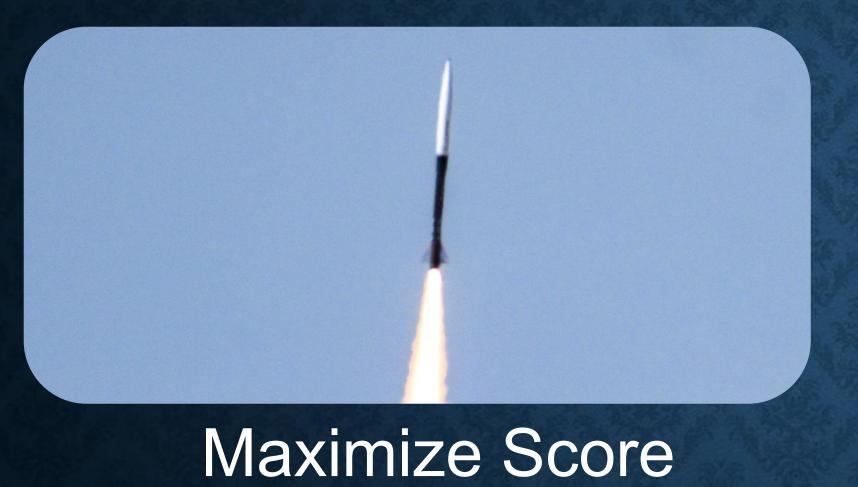
Payload Subsystem

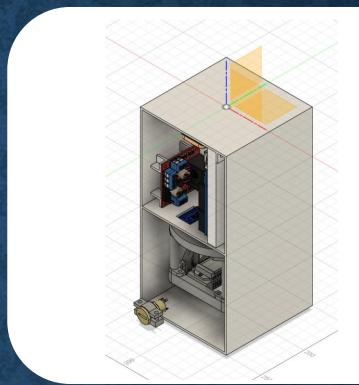


Reach 30k





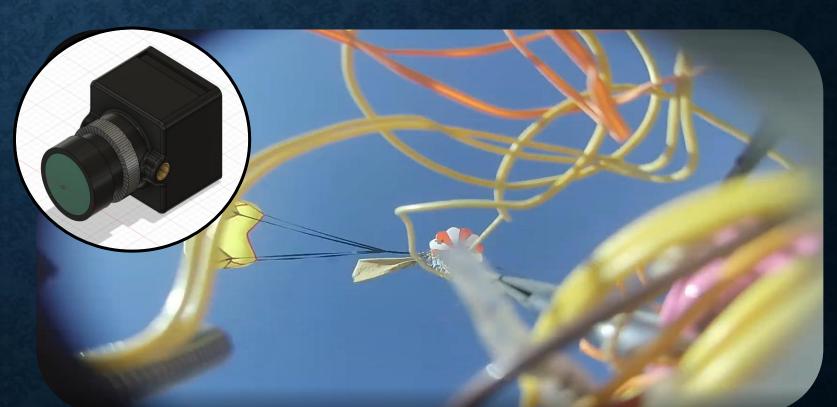














Airbrake









Chulalongkorn University Fixed-wing Aircraft

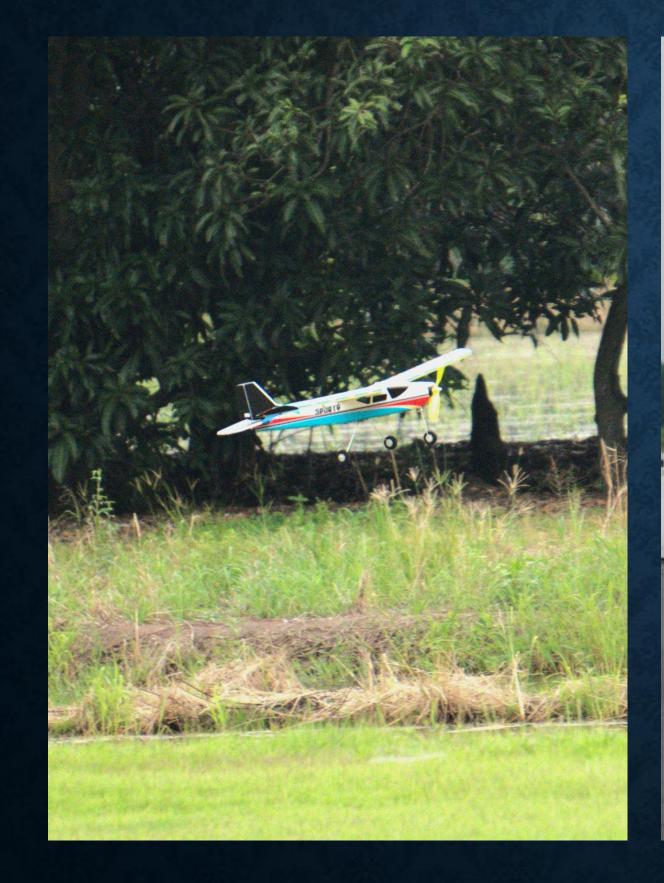
AIR CARGO CHALLENGE 2026





PROJECT CUFA-II









PROJECT CUFA-II



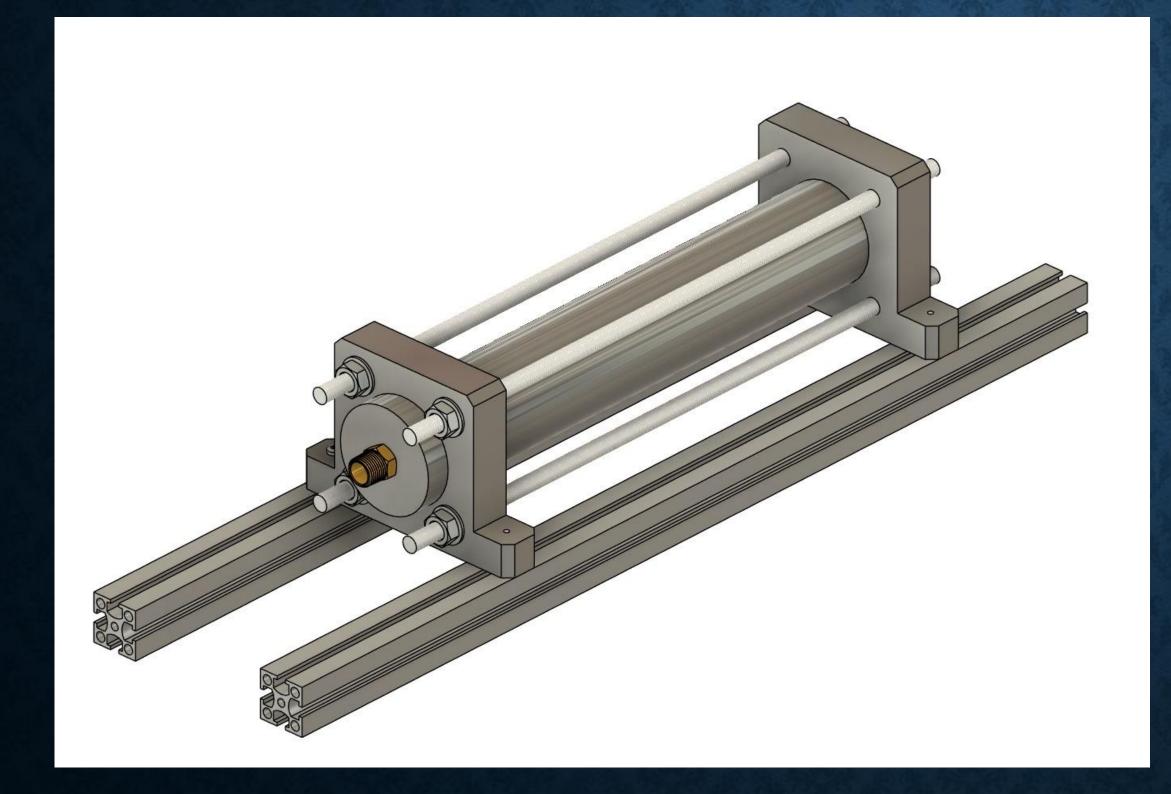


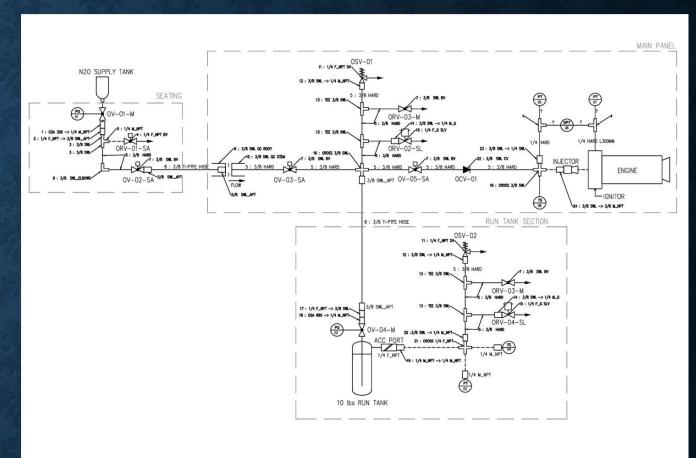


Experimental Sounding Rocket Team

PROJECT XSRT





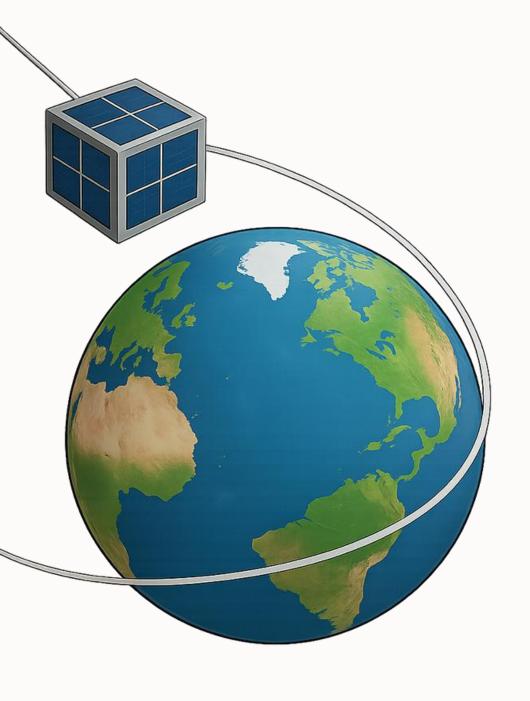






CHULALONGKORN UNIVERSITY
SATELLITE AND AEROSPACE TECHNOLOGY CLUB

What is CUSAT?



Chulalongkorn University Satellite and Aerospace Technology Club

students club focusing on satellite technology. It provides an open platform for students to gain hands-on skills in CubeSat design, development, and applications



Our Mission & Vision

Mission

- A Hub for Space Technology Enthusiasts: A collaborative platform for students passionate about space technology, providing opportunities to learn and develop practical skills in satellite systems
- Innovating with Knowledge: Applying theoretical knowledge to real-world projects, from mission design and control software to satellite data analysis, fostering innovation.

Vision

• Shaping the Next Generation of Satellite Engineers: Building hands-on experience in CubeSat design, development, and operations, preparing members to contribute to the future of space technology.