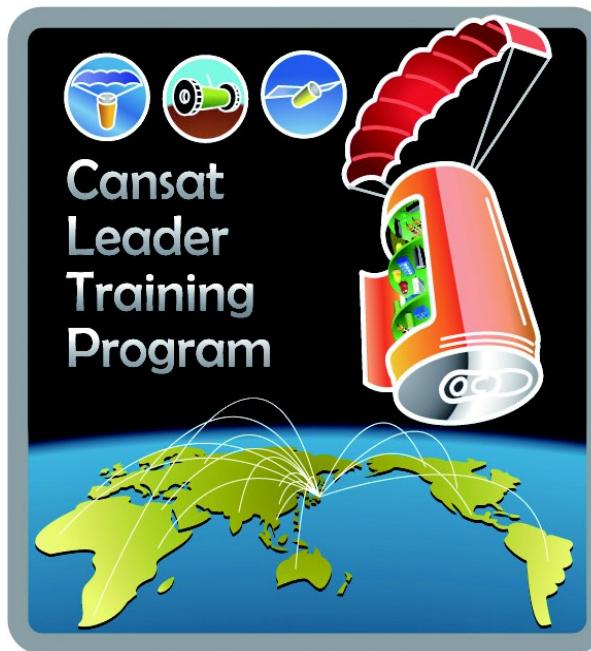


# CLTP5

## CanSat Leader Training Program 5



HOKKAIDO  
UNIVERSITY

 **UNISEC**  
University Space Engineering Consortium

# Hokkaido University TAs



M2  
Tomohiro  
TAKANASHI

Topics of research  
「Liquid droplet radiator」



M2  
Tilok Kumar  
Das

Topics of research  
「Thermal control of  
micro&nano satellite」



M1  
Akihito  
OGATA

Topics of research  
「Thermal control of  
micro&nano satellite」



M1  
Masahiro  
MOURI

Topics of research  
「Thermal control of  
micro&nano satellite」



Hokkaido university



Hokkaido university

# Topics of research

— Thermal control of micro&nano satellite —

Hokkaido university Space System

M2 Tomohiro TAKANASHI

M1 Akihito OGATA

M1 Masahiro MOURI

2014/09/08

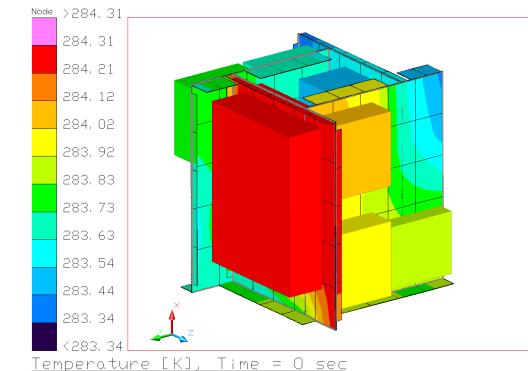
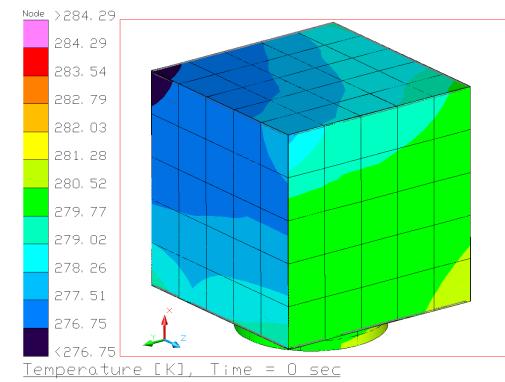
# What is Thermal control of micro&nano satellite?

It is a technique of keeping components temperature in the allowable range.

## How to do?

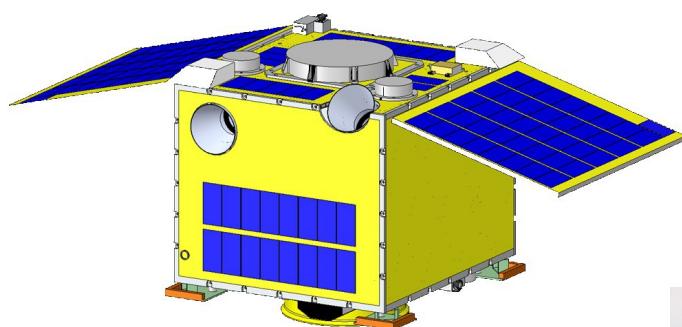
Using ...

- Fortran program
- Thermal analysis software  
「Thermal Desktop」

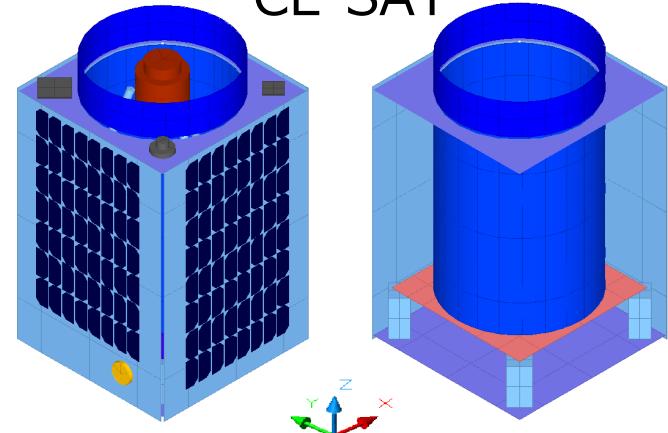


# Previous study

RISESAT

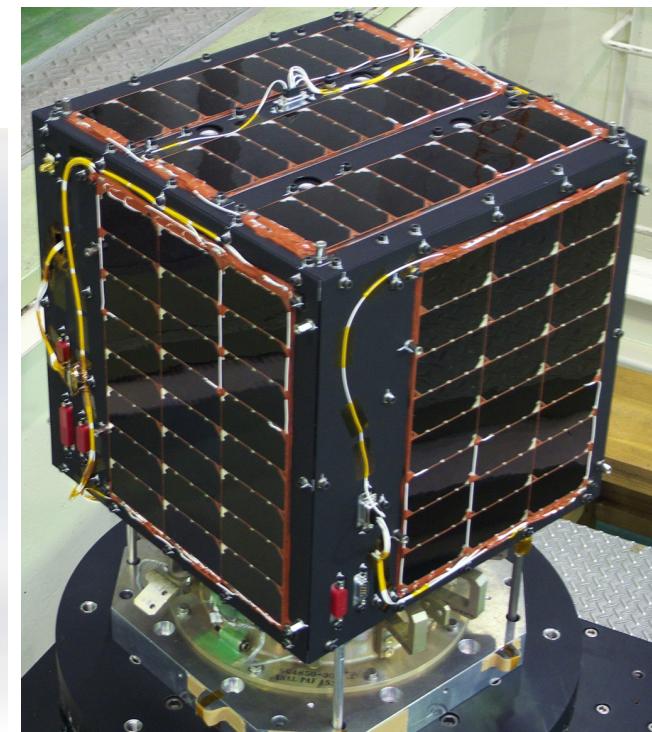


CE-SAT



In past times,  
We analyzed following  
micro&nano satellite !

UNITEC-1



HIT-SAT





Hokkaido university

# miniCAMUI Project

## — Hokkaido University TAs —

Hokkaido university Space System

**M2 Tomohiro TAKANASHI**

**M1 Akihito OGATA**

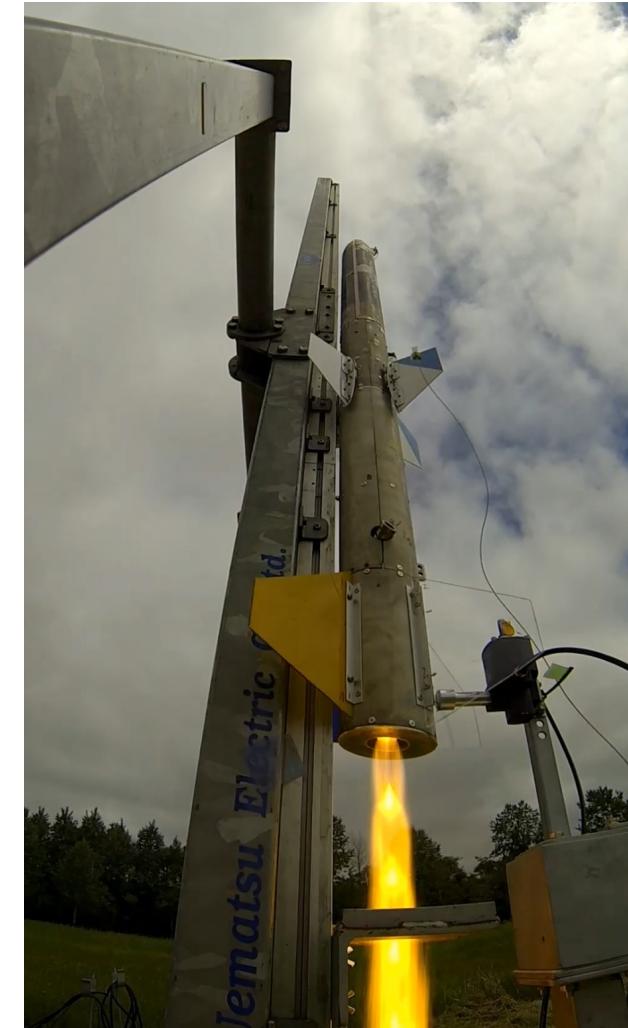
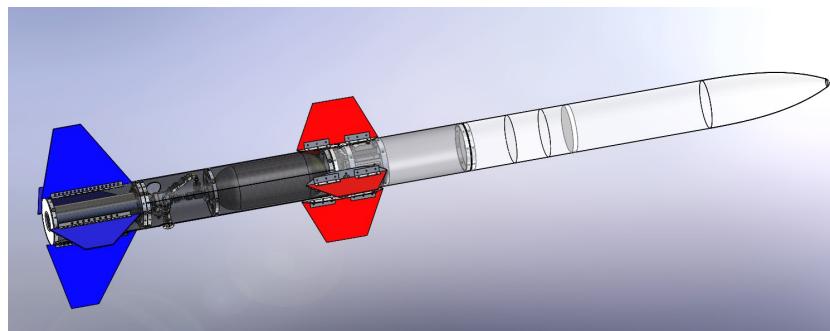
**M1 Masahiro MOURI**

2014/09/08

# What is a miniCAMUI project ?

It is a rocket development  
of the students,  
by the students,  
for the student... .

That's **minicAMUI**.



# Histry of miniCAMUI project

2009 : Initial launch

Development of separation mechanism

2010 : Successful of communication

by Bluetooth

2011 : Development of micromini motor

2012 : Established launch technique

2013 : Roll control by rotating blades

2014 : Gliding control by rotating blades



# 2013 : Roll control of rotating blades

Please see a launch video...  
video No.1



Finally ...

Thank you for your attention !

Finally, please see a promotional film of  
MiniCAMUI 2014 ...  
video No.2



Hokkaido university