

The 5<sup>th</sup> UNISEC Global Meeting, Rome, Italy

# International CanSat Activities of UNISEC Japan : ARLISS & CLTP

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# Contents of This Presentation

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- **ARLISS** (A Rocket Launch for International Students Satellite)
- **CLTP** (CanSat Leader Training Program)
- **Future International CanSat Activities...**

# ARLISS

- **ARLISS** : A Rocket Launch for International Student Satellites
- Venue : Black Rock Desert (Utah, USA)
- Date : for ~1 week on September every year
- Cooperation with AeroPac

## Black Rock Desert (Utah)



# Comeback & Mission Competition

## ▶ Comeback Competition

- Rovers and aircraft try to go back to the goal automatically.
- Evaluation : accuracy, speed, technology



Rover Type

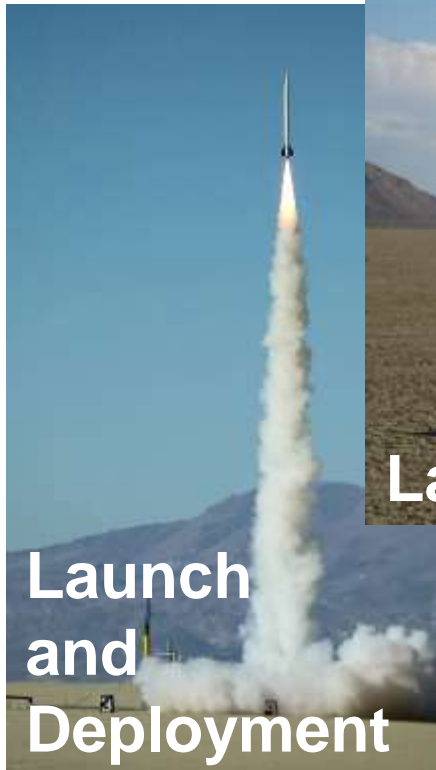


Fly Back Type

## ▶ Mission Competition

- Using cansats, various missions are implemented.
- Example : Measurement of atmospheric pressure  
Taking pictures while descending

# Example : Comeback Competition (Rover)



# Benefit of ARLISS

▶ What we can learn and experience through ARLISS...

## Technology



## Interaction



## Launch Opportunity



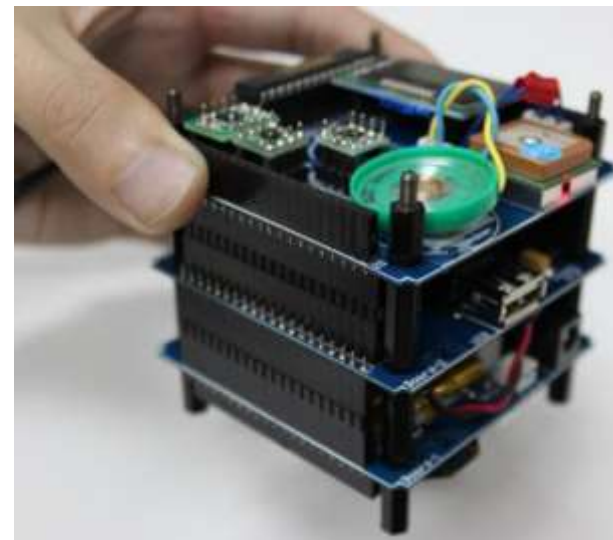
# CLTP : CanSat Leader Training Program

- A training course to experience the entire cycle of cubesats development through cansats
- For researchers and educators as one of the capacity development programs in space technology
- Tools for Hands-on training of satellite engineering

## i-CanSat



## HEPTA Sat



# CLTP : CanSat Leader Training Program

**Lectures**



**Hands-on Training**



**CLTP**

**Lab Tour**



**Cultural Exchange**





# i-CanSat

▶ A hands-on tool includes the following knowledge

- System engineering
- Basic satellite functions
- Integration & testing process
- ...



# Components of i-CanSat

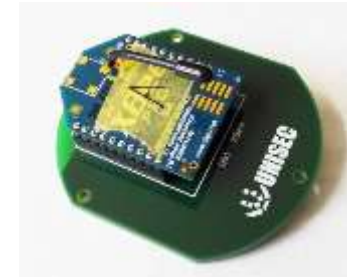
**Battery**



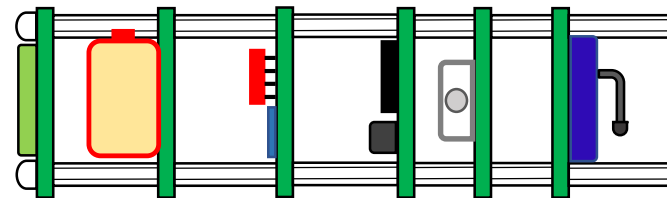
**OBC**



**Communication**



**GPS**



**Ground Station**



**Sensors**



**Camera**



# Pictures (in Japan)

## Undergraduate Students



## High School Students



## High School Teachers



# Future International Hands-on Activities...

- ▶ More participants for ARLISS and CLTP



- ▶ New international CanSats activities & programs
  - Local CanSat competitions like ARLISS
  - Open source development of satellites and cansats in UNISEC Global community