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Student
Space
Project

# Results of ARLISS2011
# Akita university

ARLISS2011 11～16,SEP,NEVADA
The Univ. of Akita Space Student Project

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# Introduction

- The purpose of our cansat is success of “Fly back”.
- Our cansat has wing and equips a parachute.
- Control method of our cansat is similar to Parafoil.

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# Structure & Power

- Size : 230mm × 580mm × 80mm
- Weight : 350g (1st flight)
  450g (2nd flight)
- Body : Plastic bottle
  (PET : Polyethylene terephthalate)
- Battery : Lithium battery CR123A ×3 (9.0V)
- Voltage transfer : DCDC（5.0V－Step down）
  (3.3V－Step down)

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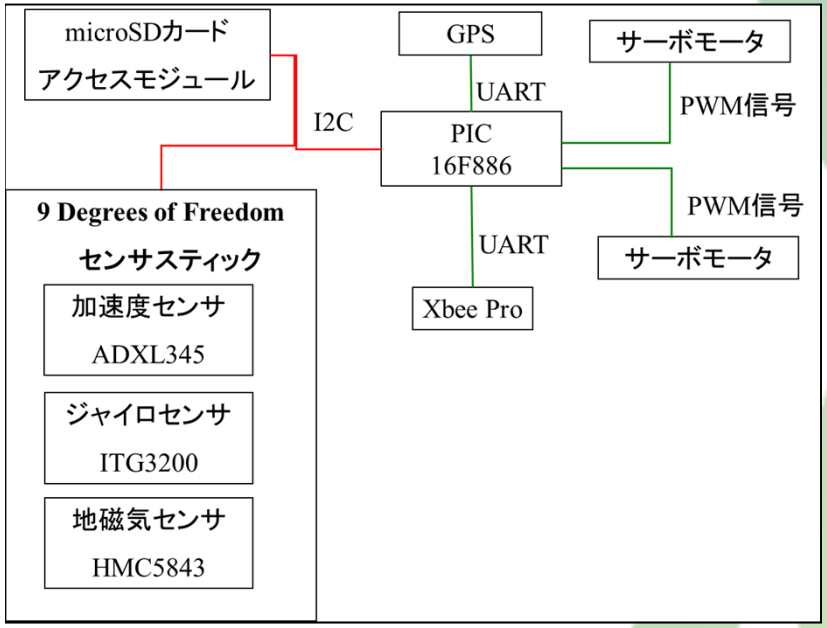
# System Diagram & Features




System Diagram of Cansat

- Cansat have gyro sensor, acceleration sensor and magnetic sensor, and all sensors have 3-axis and 12bit or higher resolution.
- Sampling rate of GPS data and all sensor data are 1Hz.
- The Micro SD card is used as a recording GPS and sensor data.

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# Result of 1st flight

- Recovery : Succeed
- Distance : 645m
- Control history : Failed
- GPS data : Failed
- Sensor data : Failed

**Fig3. Cansat after 1st flight**

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# Result of 2nd flight

- Recovery : Succeed
- Distance : 1217m
- Control history : Failed
- GPS data : Failed
- Sensor data : Failed

**Fig4. Cansat after 2nd flight**

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# Future book

- We failed in recording of the flight data at 1st and 2nd flight.
- Their cause were the same reason. Our recording device needs close command from micro computer for making data file. This time,  micro computer failed transmitting close command.
- We'll change recording device which doesn't need close command.

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# Thank you for lunching

**1st Flight Mr. Green**

**2nd Flight Mr. Jonathan**