Keio University Wolve’Z

ARLISS 2009 Student Presentation

Sep. 18 2009 (Fri.)

@Bruno’s Country Club Motel Restaurant

Project Manager : Kakehashi Yuya

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Team Member

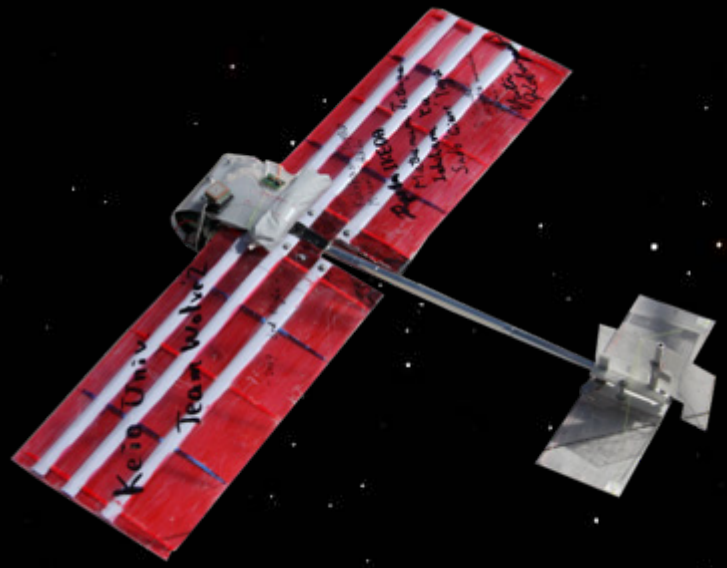
We belong to Takahashi Lab of Keio Univ.

- Project Manager — Kakehashi Yuya
- Student Representative — Kobayashi Yuta
- Engineer — Mikami Yoshihiko
  Ikeda Ryota
  Ishihara Yu
  Sudo Yuya
  Matsumura Tetsuya

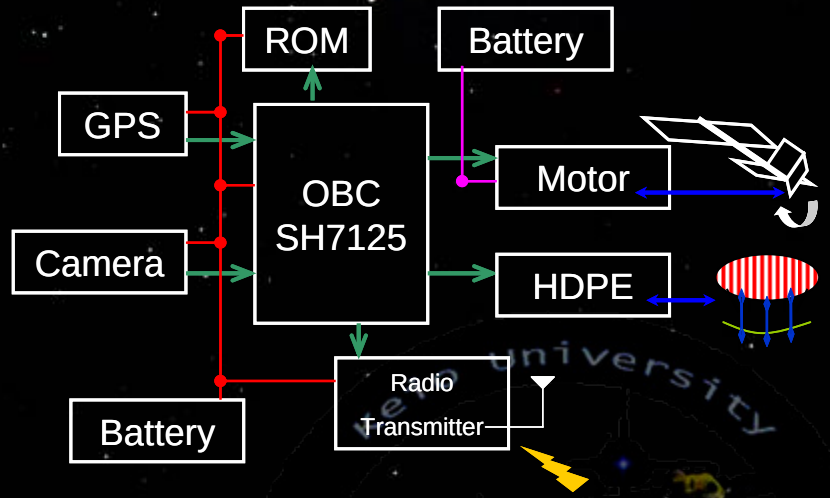
Kusuda Yohichiroh
Hiraoka Shoichi
Ikeda Tatsuhiko

Wolve'Z CanSat

WOLVE'Z 09

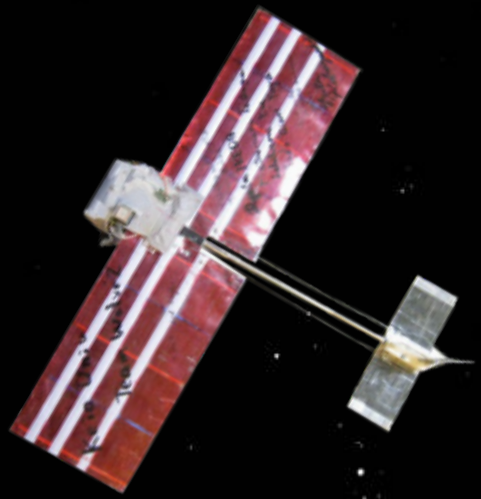


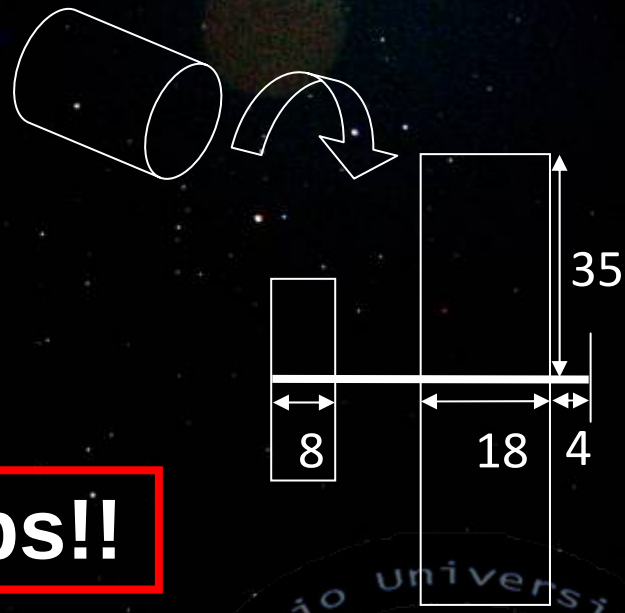
Weight	600g
Folding Size	100mm × 130mm × 230mm
Opened Size	length530mm × width700mm
Wing Span	700 × 180 = 126000mm²



System Diagram

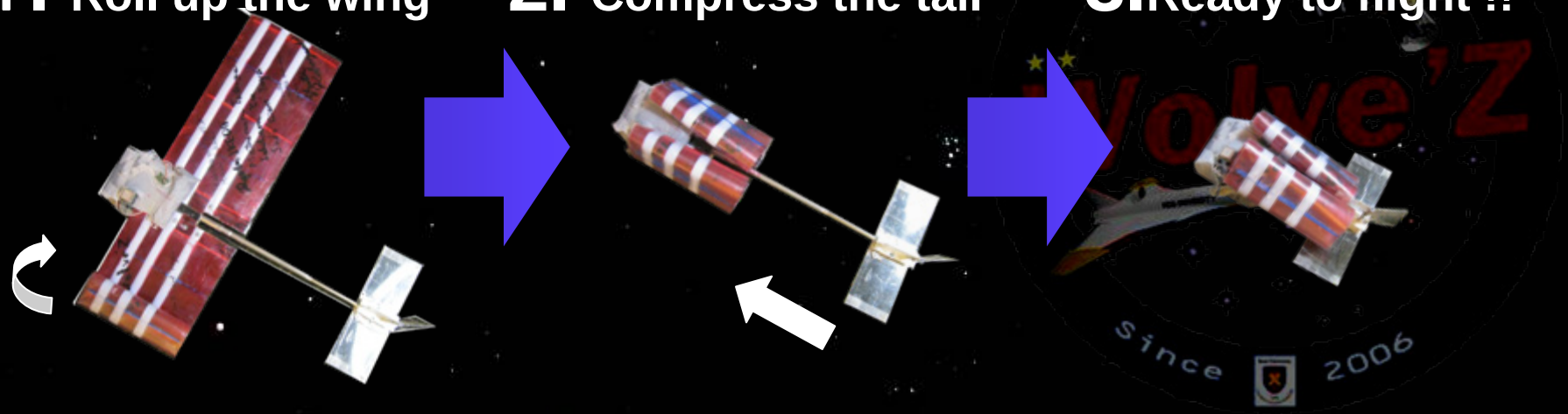
How to fold the CanSat





Only 3 steps!!

1. Roll up the wing **2. Compress the tail** **3. Ready to flight !!**



Our Missions

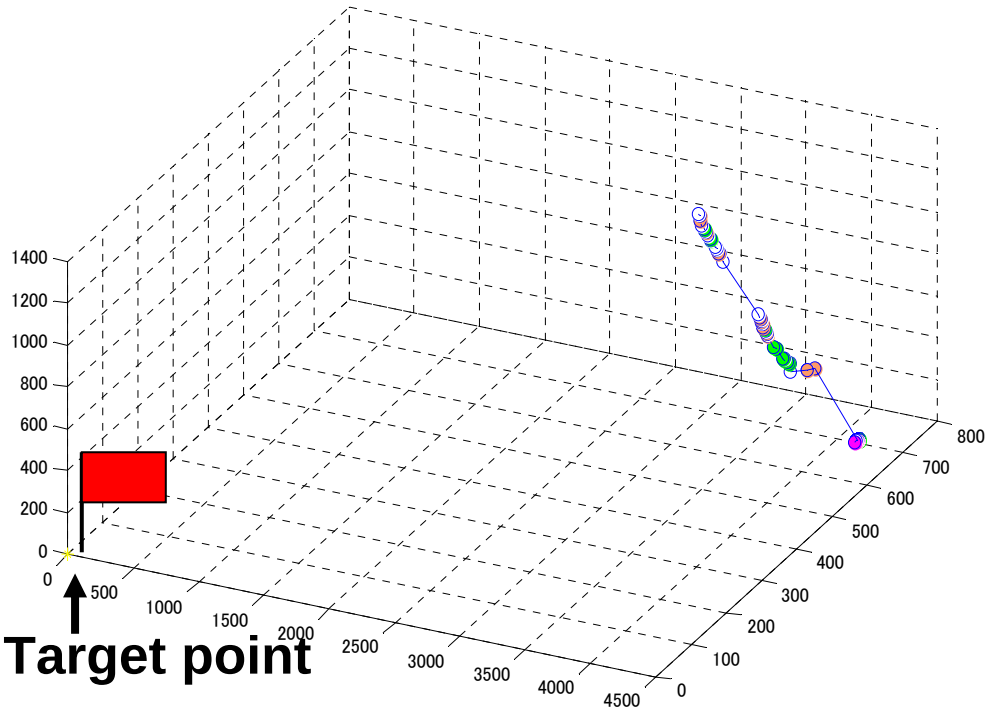
- Fly Back Mission
  - aiming at the target point by autonomous flight.

- Camera Mission
  - taking a moving picture in the sky.

- Soft-landing Mission
  - Decrease speed by the parachute when landing.

Result -1st Flight-

4187m



○ : Straight

● : Right (small)　● : Left (small)

● : Right (middle)　● : Left (middle)

● : Right (big)　● : Left (big)

- **Fly Back Mission**

  with Control !!

- **Camera Mission**

  failure

- **Soft-landing Mission**

  failure

Result -2nd Flight-

301m!!!

- **Fly Back Mission with Control !!??**
- **Camera Mission failure**
- **Soft-landing Mission failure**

Result -3rd Flight-

Free Fall

- Fly Back Mission
  free fall
- Camera Mission
  success !!
- Soft-landing Mission
  failure

Conclusion and Future Plans

- **The result of this year's ARLISS flight**
  - We launched airplane style CanSat in this year. First flight's record is 4187m and second is 301m.
  - In third flight, we got a moving picture in the sky.
  - We couldn't get control record from radio transmitter.
- Future plans
  - We must develop a new radio transmission system so as to get the downlink data from CanSat more certainly.



A lot of Thanks

Night Flight is so cool !!

Mr. Seth , Mr. James , Mr. Steve

& all other members of Aeropack

Thank you very much !!!

And more…

- For Mr.Kobayashi, Mr.Nagamine and Mr.Yusa.

Thanks for your nice coordination!!

Thank you for your kind attention


Keio University
Wolve'Z
since 2006