Keio Univ. CanSat Team Wolve'z

ARLISS2007 Student Presentation

Sep14,2007 Bruno's Country Club





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Member

We belong to Yoshida and Takahashi Lab of Keio Univ.

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Student representative: Yasuyuki Nanamori
Other members: Junya Kitade Syota Tobimatsu
Naoko Matsubara Seiichiro Yamamoto





Concept and overview

<Team Wolve'z aims and policies>

"Simple and Robust" = Acquisition on basic technical issues

Practical learning about System Engineering and Project management

Participation in Come back competition

Development period: About five months

Budget: About \$1200 / 2cansat

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Wolve'Z CANSAT



Proposal of new strucure on cansat



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Wolve'Z CANSAT

1st Flight WOLVE'Z 2007 **For ARLISS KIMIKO** (Simple and Robust)

Proposal of new strucure on cansat



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ARLISS Entry Model (Parafoil type)









Result (1st Flight)

The result of First flight (Wolve'z 2007)

 When CANSAT separated from rocket, a part of parafoil was broken by impulsive force, and body was free-falled.





- To reinforce a structure of parafoil strings
- To check up several types of body material which will be able to stand the shock of launch.





Wolve'Z CANSAT

2nd Flight





Proposal of new strucure on cansat



Proposal of new structure -Parachute-







Control Algorithm (parachute)



It is possible to move in all directions without the gyration.
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Result (2nd Flight)

WOLVE'Z

Record: 5090m





Trajectory of Flight









Summary and Future plans

The result of this year's ARLISS flight

- We launched two cansats in this year ARLISS event.
 One had an accident and broken. The other's record is 5090m.
- We could get control record from on-board ROM and make sure that system could run certainly (КІМІКО).

To improve the performance of our CANSAT...

- Consider a structure of parafoil strings, body materials in order to stand the shock of launch.
- To develop a new radio transmission system so as to get the downlink data from cansat more certainly.
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Special Thanks to... Jeanne and Jamie





Gumby A Pilot of rocket

Cute and Charming Rocket Couple

