

ARLISS2012

TMU Family

Tokyo Metropolitan University

Team Introduction

①



③

②

④

Members

- ✓ Yasuo ARAI (PM) M1
- ✓ Shutaro NISHIKIZAWA M1
- ✓ Keita WATANABE M1
- ✓ Sho KAWAKAMI B4

We started developing our CanSat on May.

Because it was our first experience to develop fixed wing type CanSat, we had a lot of difficulty.

About Our CanSat



Torsion springs



Weight : 309[g]
Height : 240[mm]
Diameter : 140[mm]

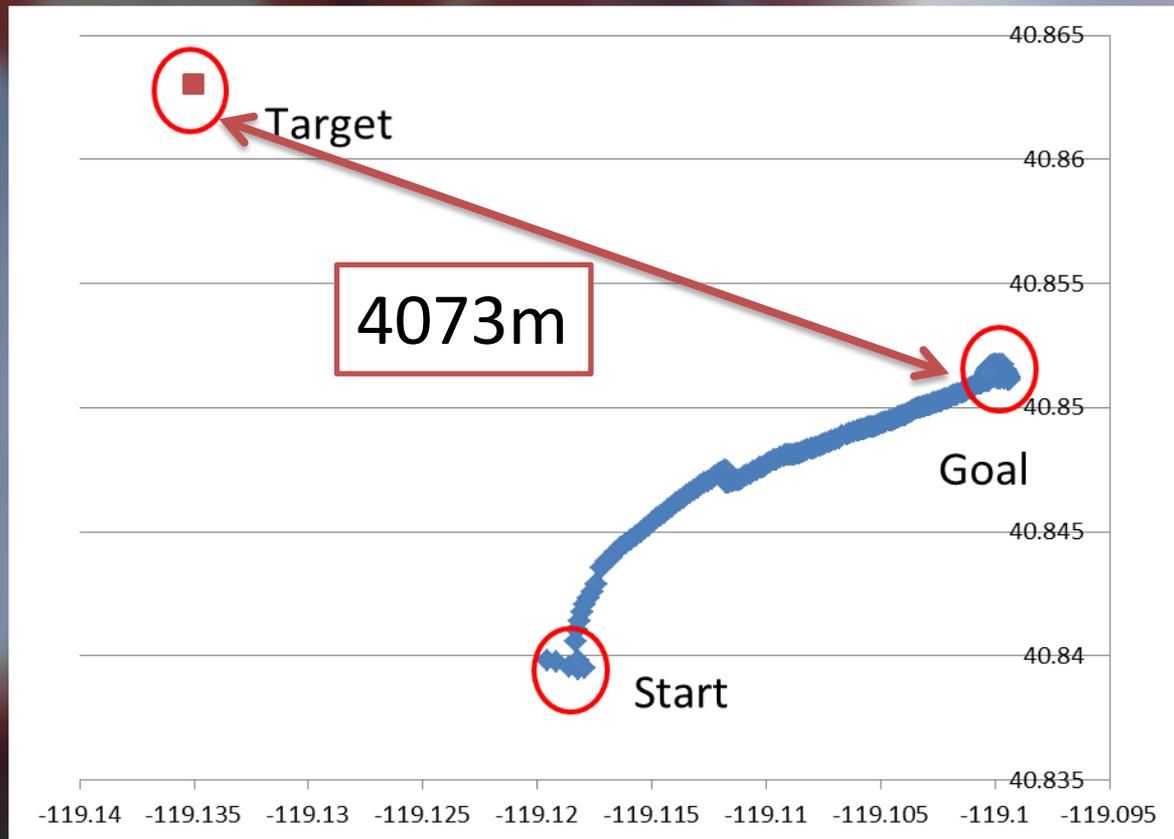


Mission Introduction

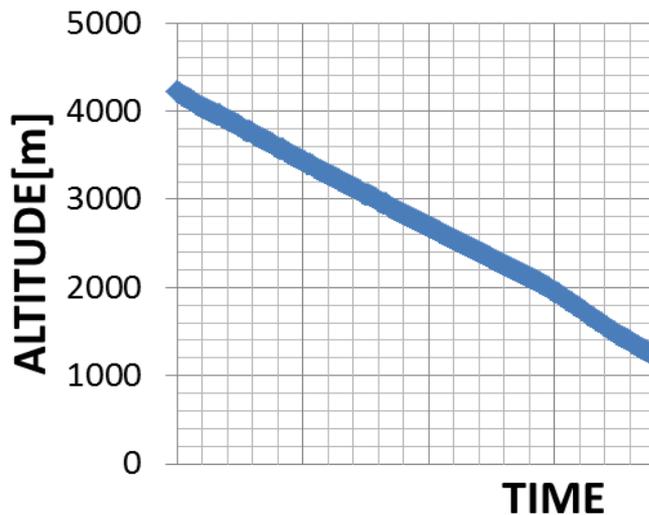
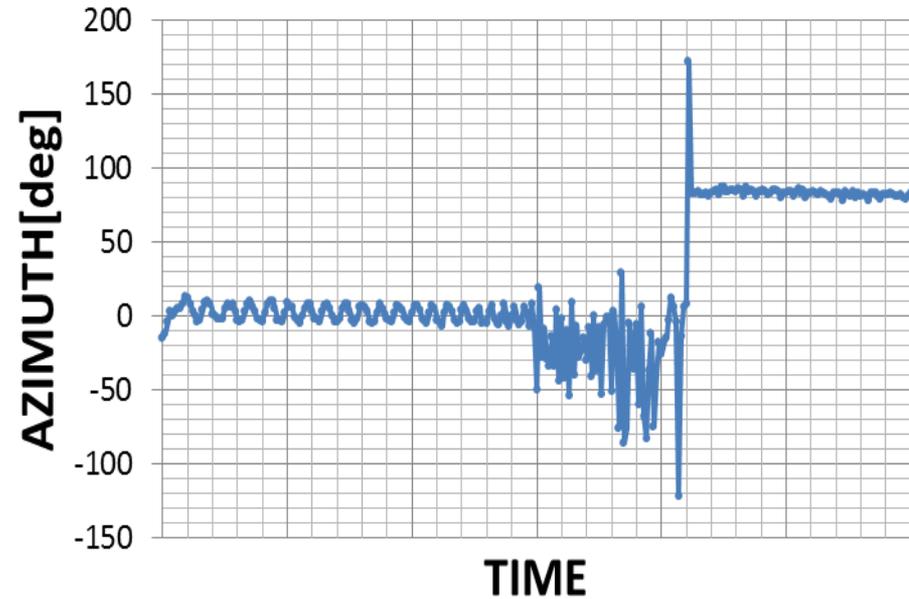
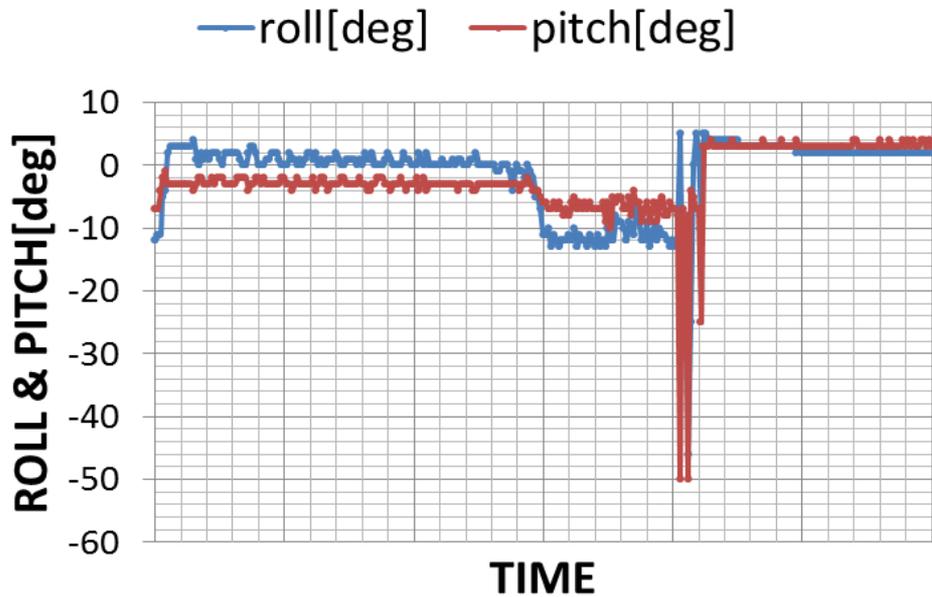
- **Full success**
 - Calculated distance between the target and the landing point of our CanSat is less than 500m.
- **Minimum success**
 - (1) To be able to play the video stored in a memory correctly after recovery of our CanSat. This video should contain the scenes of the landing.
 - (2) The roll and pitch angles should be within ± 10 [deg] and ± 15 [deg] respectively.

1st Flight

Our CanSat landed at 4073m away from the target point.



1st Flight



While our CanSat was flying,

- ✓ Roll and pitch was within ± 15 degrees
- ✓ Azimuth was very steady

So our CanSat could flight steadily.

1st Flight

But our CanSat couldn't take a movie.

Summary of 1st Flight

Wing deployment	Record of control	Steady flight	Taking a movie
Success	Success	Success	failed

2nd Flight

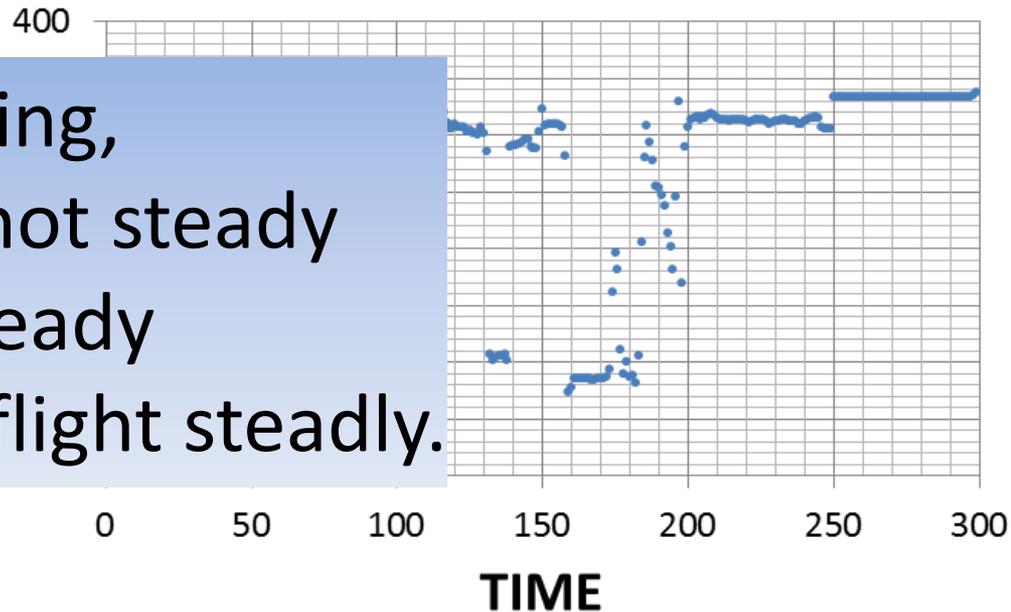
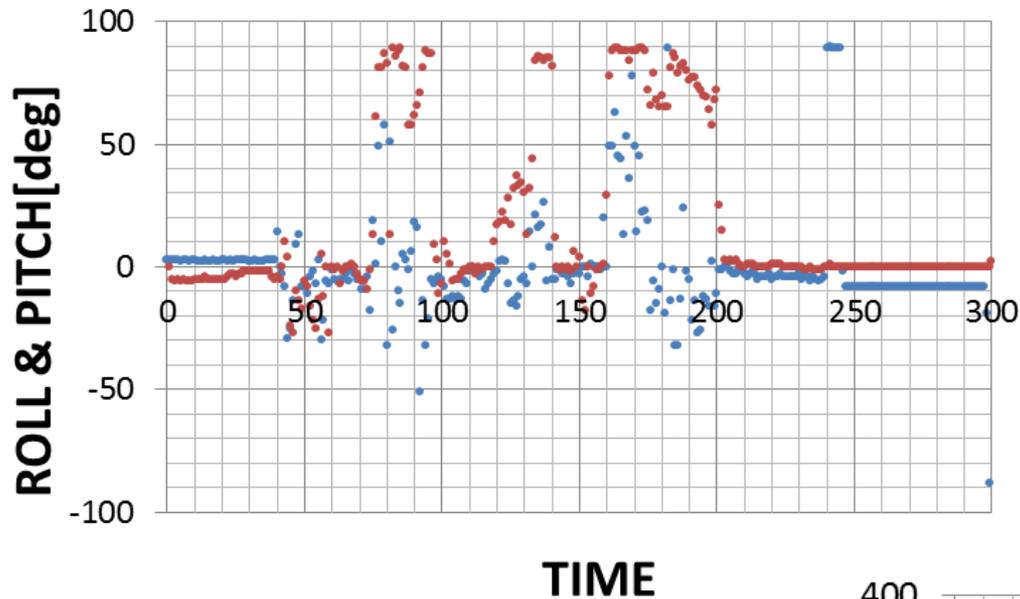
Our CanSat

- ✓ Landed at 438m away from the target point
- ✓ Could take a movie

But it could **NOT**

- ✓ record GPS data and altitude data

2nd Flight



While our CanSat was flying,

- ✓ Roll and pitch was not steady
- ✓ Azimuth was not steady

So our CanSat could not flight steadily.

Now we show you a movie taken our CanSat.

2008/01/08 06:10:27

2nd Flight

Summary of 1st Flight

Wing deployment	Record of control	Steady flight	Taking a movie
-----------------	-------------------	---------------	----------------

Success	Success	Success	failed
---------	---------	---------	--------

Success	failed	failed	Success
---------	--------	--------	---------

Finally

**Thank you Erik and David
for your good launches.**

And Thank you AEROPAC and ARLISS.

