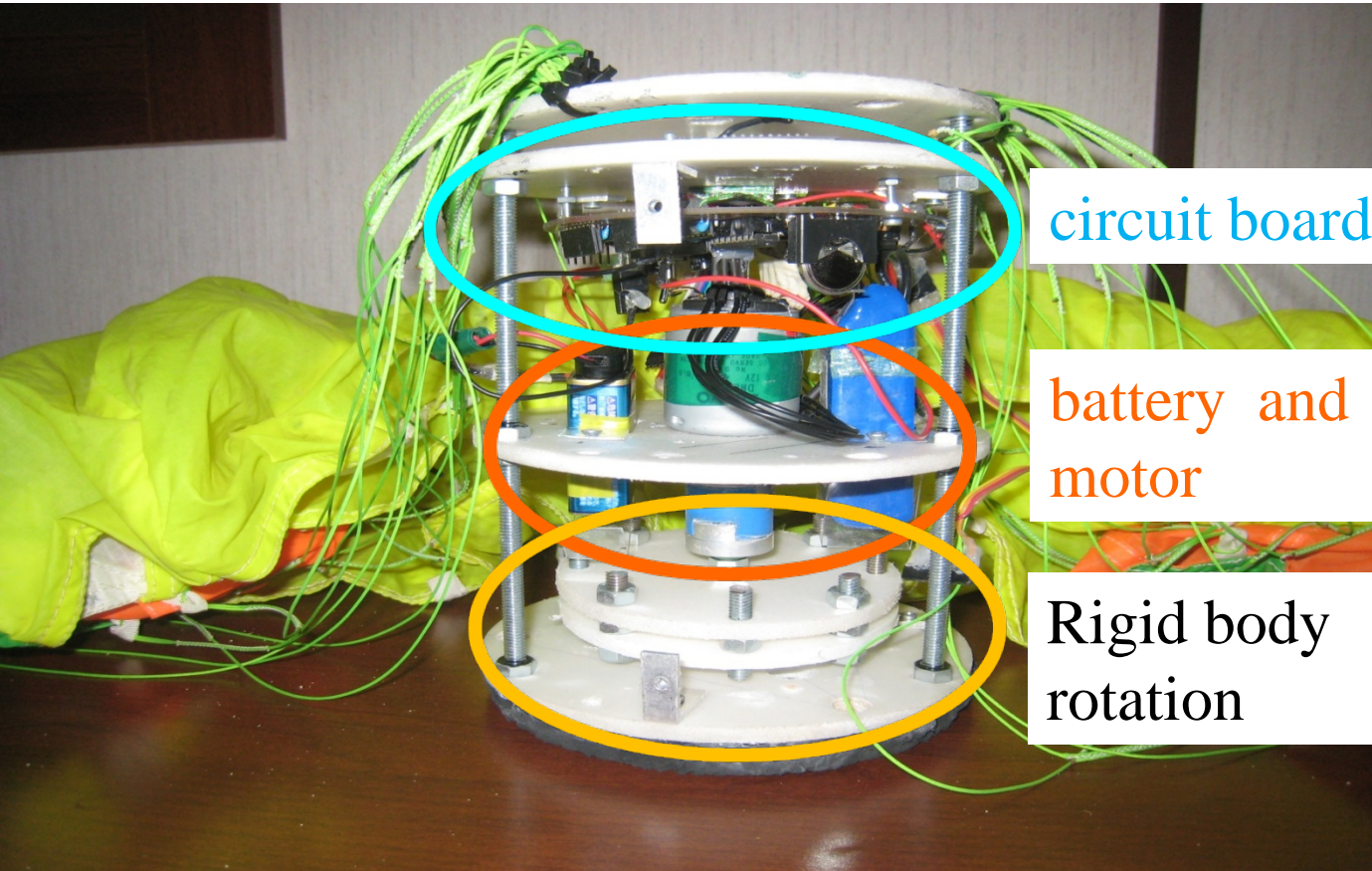# Kyusyu Institute of Technology CANSAT Project

ARLISS 2010

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Structure

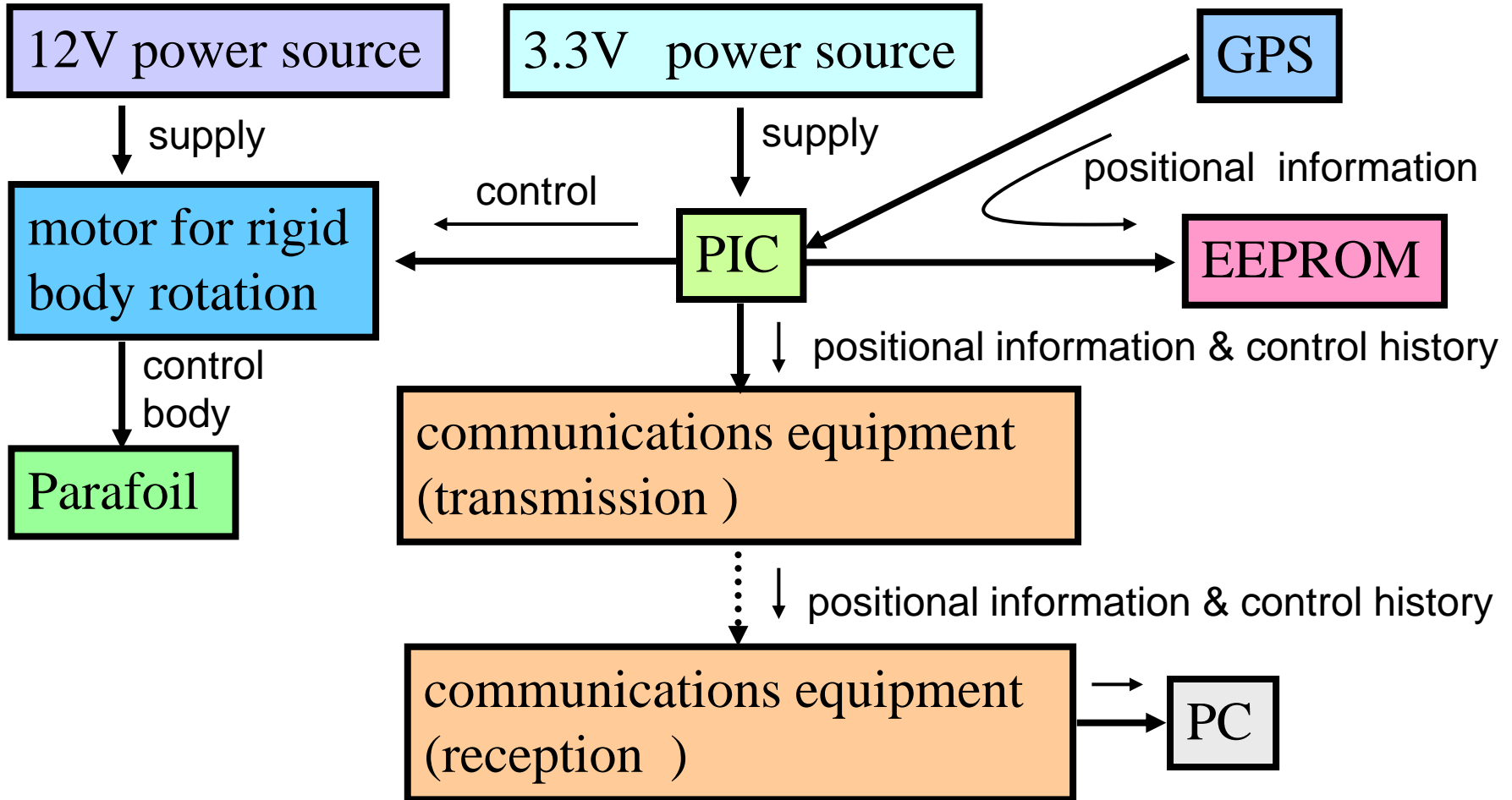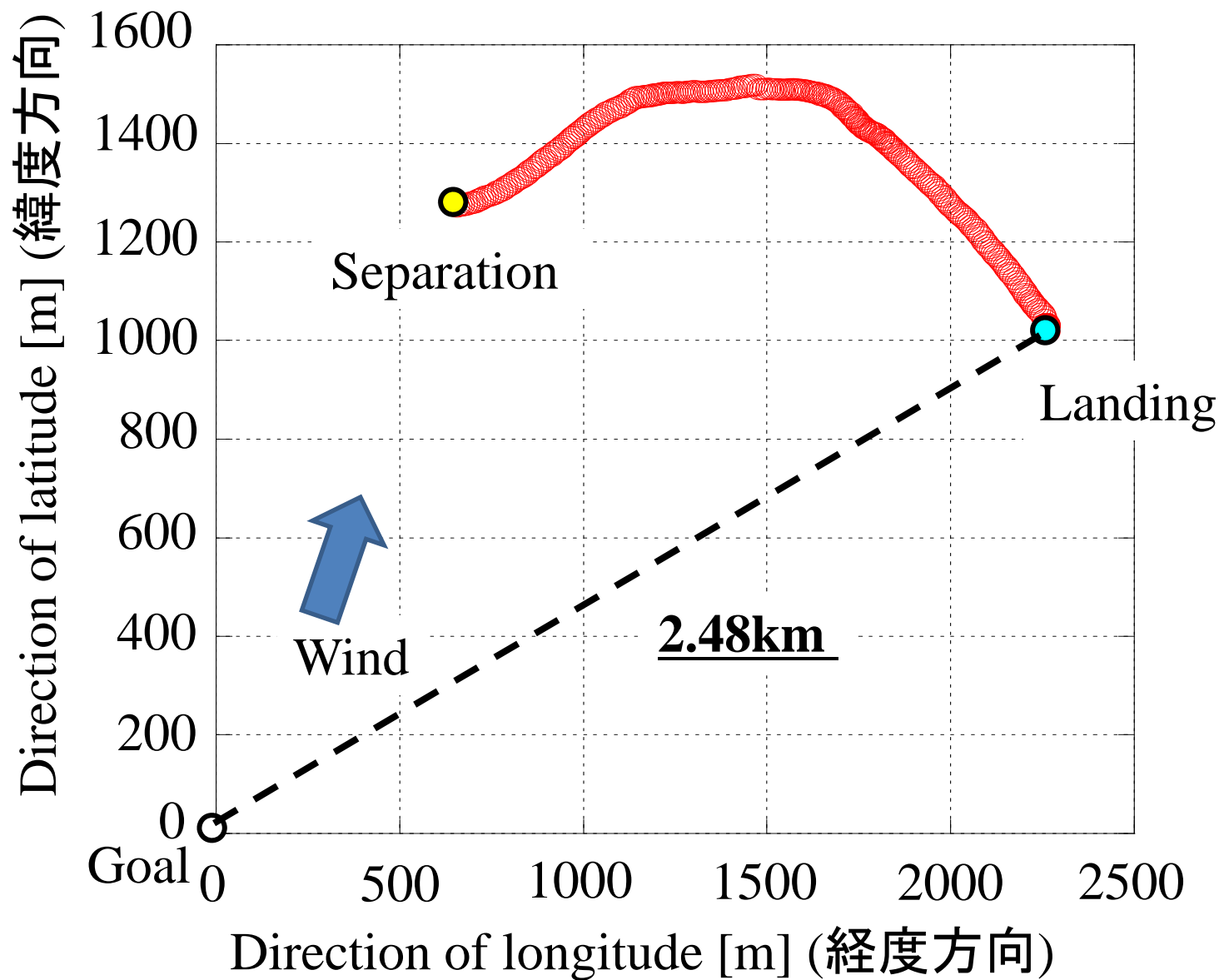circuit board → ・GPS :GH-81
・EEPROM
・Xbee Pro

battery and motor

Rigid body rotation

Weight : 1040g

Our cansat change its direction with action and reaction of rigid body rotation.

System Diagram

12V power source

3.3V power source

GPS

supply

supply

positional information

control

motor for rigid body rotation

PIC

EEPROM

positional information & control history

control body

Parafoil

communications equipment (transmission)

positional information & control history

communications equipment (reception)

PC

Distance to goal

Part of raw data

North latitude		East longitude		Altitude		A number of satellite tracking	control history
N	40.82605	E	328.2511	H	3814.8	9	X
N	40.82603	E	328.2512	H	3809.8	9	X
N	40.826	E	328.2512	H	3804.3	10	X
N	40.82598	E	328.2513	H	3798.4	10	X
N	40.82596	E	328.2514	H	3792.3	10	X
N	40.82593	E	328.2515	H	3785.8	10	X
N	40.82591	E	328.2515	H	3779.2	10	X
N	40.82589	E	328.2516	H	3772.3	8	X
N	40.82587	E	328.2517	H	3765.3	8	X
N	40.82584	E	328.2518	H	3758	9	X
N	40.82581	E	328.2519	H	3750.6	7	X
N	40.82578	E	328.2519	H	3743.1	10	X
N	40.82574	E	328.252	H	3735.4	10	X

The control history always show "right".

conclusion

Our cansat need more power to control.

・We should use glider type not parafoil type as wing.
・We should lighten our cansat.

・We have to add more mission.
(ex. take a picture or use other sensors)

Thank you for your attention!