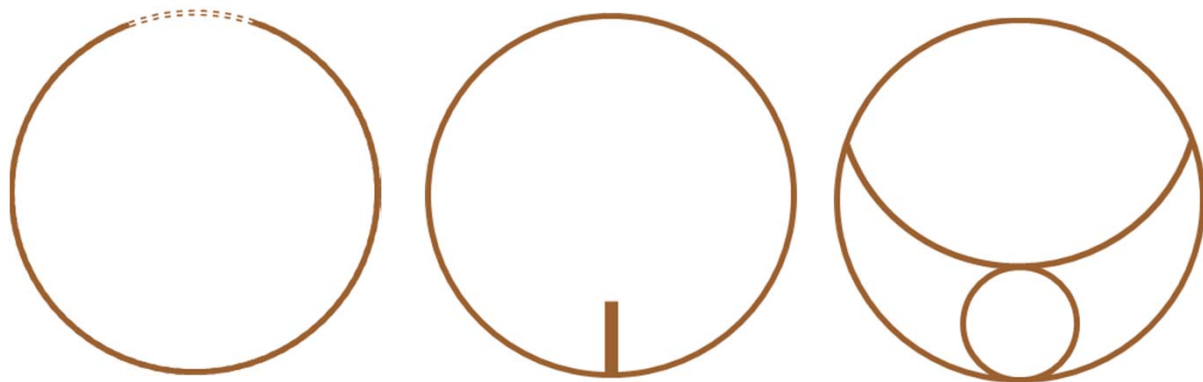


# Behavior of **Wire Tops** under the Micro-G

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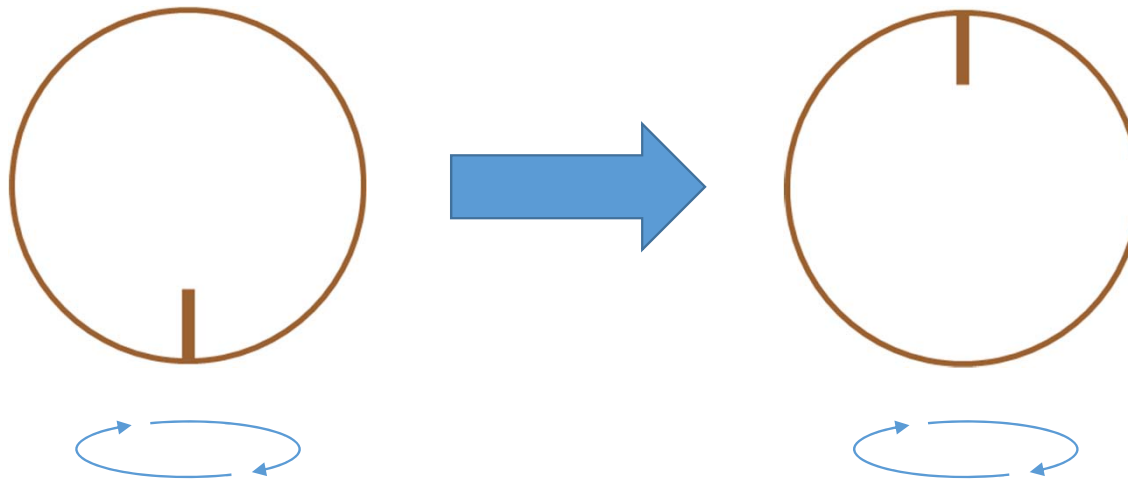
Asian Try Zero-G



Yoshinori Murakami  
Yuto Terada  
Tatetsuka Nakamori  
Hideyuki Ohya  
Sho Hasegawa

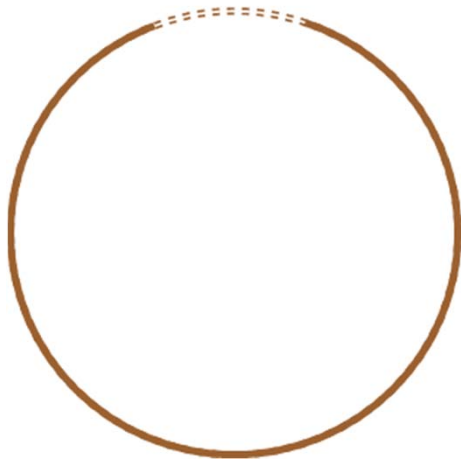
# Experiment Purpose

- To make a top which gets upside-down while rotating both under micro-G and on the Earth

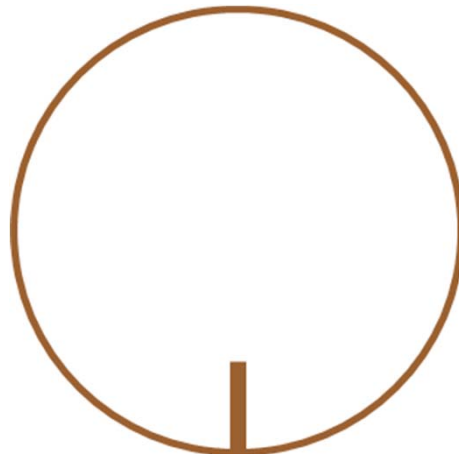


# Materials

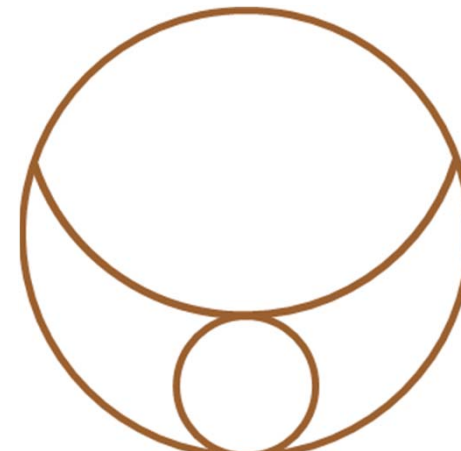
- Copper wire (Diameter of the wire 2mm)
- Silicone tube
- (Pliers)



Type-A



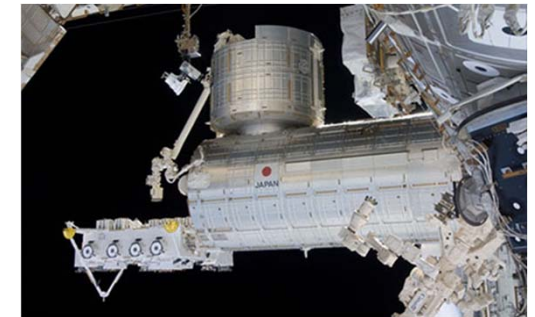
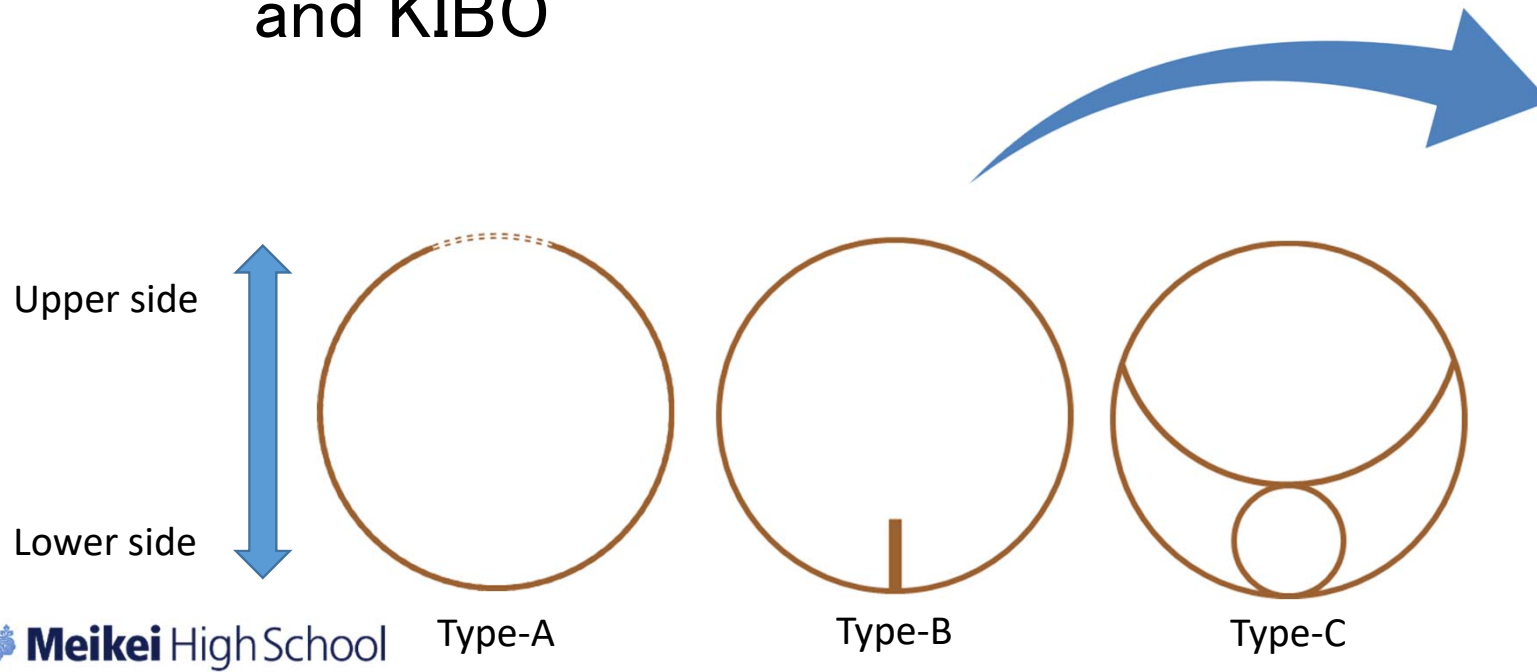
Type-B



Type-C

# Methods

1. Made three tops with the Copper wire
2. Compare their behavior between on the earth and KIBO

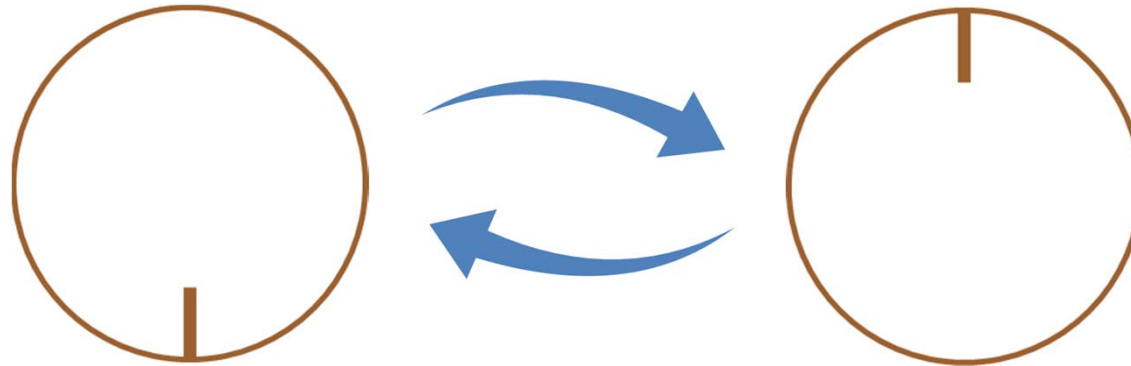


Experiment on KIBO

© JAXA/NASA

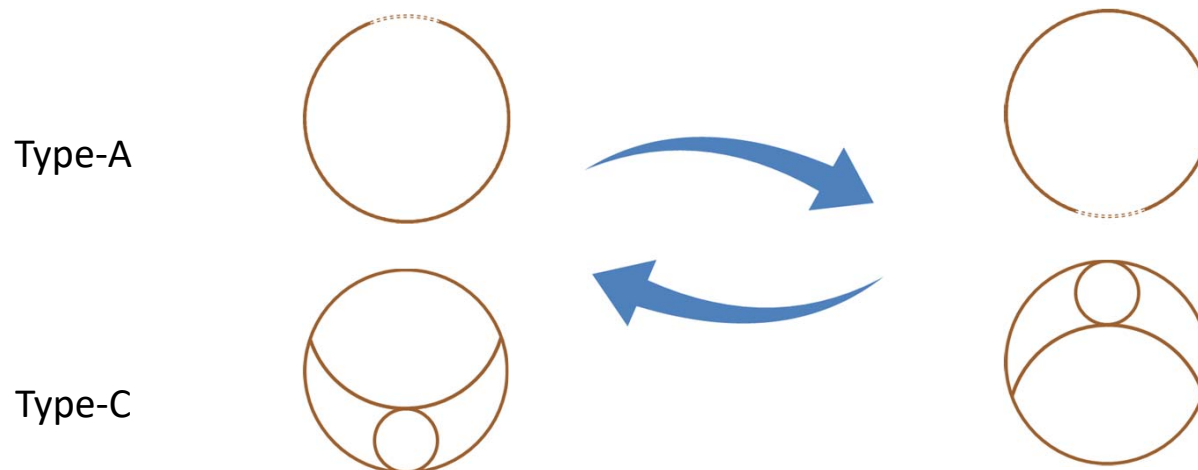
# Hypothesis

- All wire tops repeat flipping under Micro-G

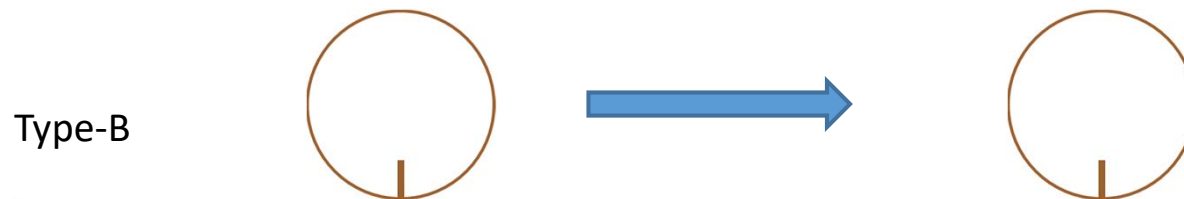


# Experiment Results

- Type-A, Type-C DID get upside-down



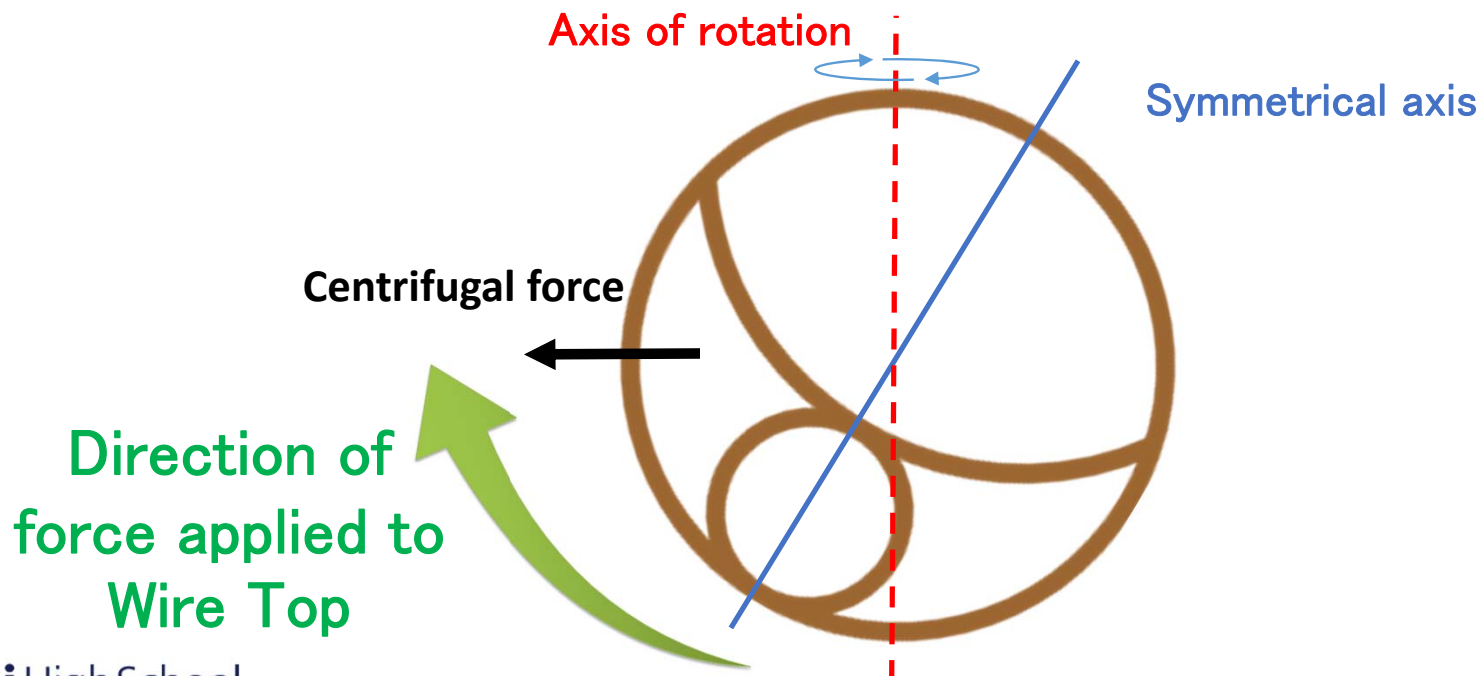
- Type-B was stabilized, DID NOT get upside-down



# Discussion

## Method of the turning...

Differences between symmetrical axis and rotation of axis

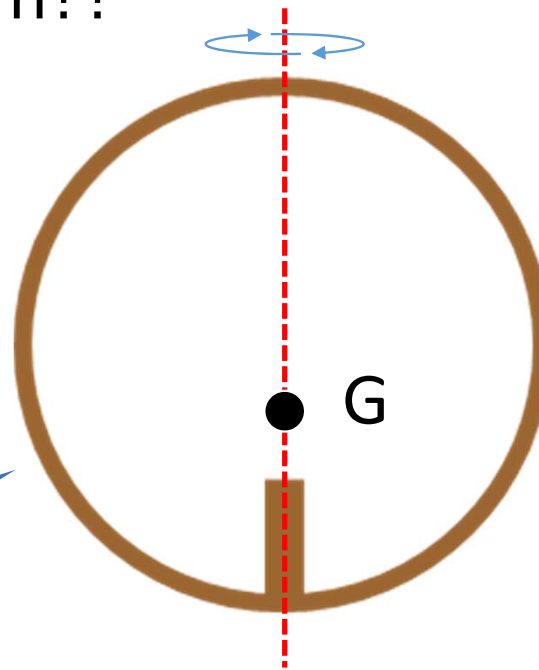


# Discussion

Why didn't Type-B turn??

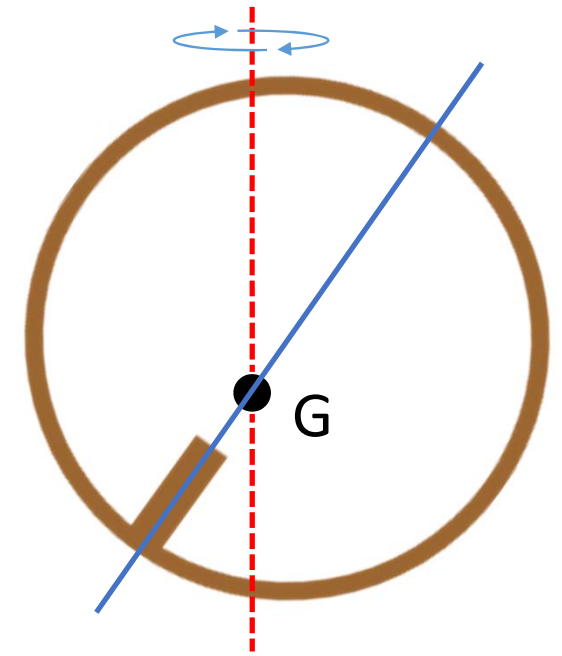
Magnitude of angular mass depends on the tilt of the symmetrical axis

Tends to stay on the situation with **smaller** force caused by angular mass



Small

Rotates normally



The force caused by angular mass

**BIG**

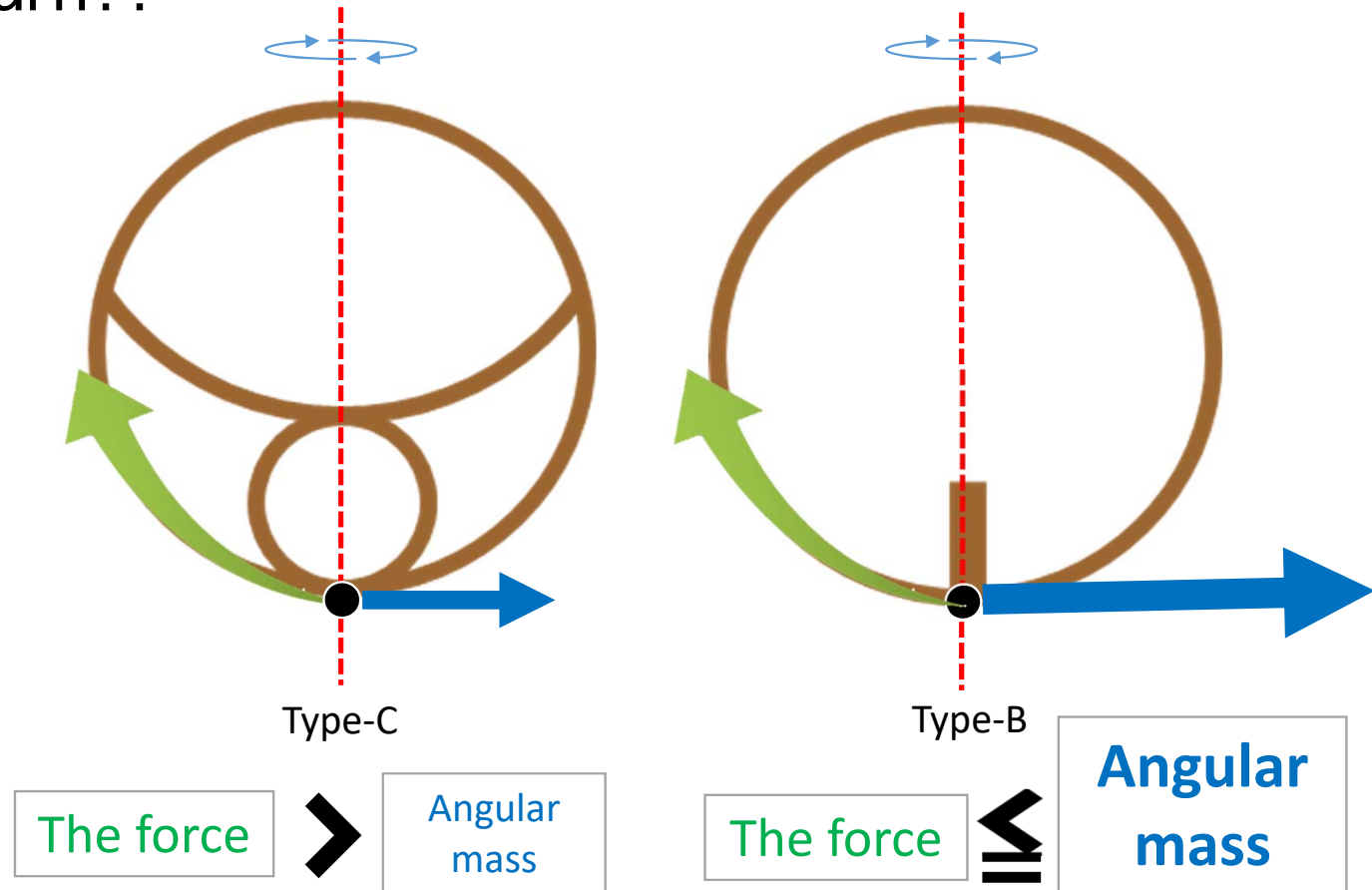
Less easier to rotate



# Discussion

Why didn't Type-B turn??

- The force caused by the angular mass which applied to Type-A&C was **smaller**, compared to Type-B.
- Therefore, Type-B DIDN'T turn!



金井さん、ありがとうございました！  
Thank you, Kanai-san!

