

SAMURAI

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University of Tokyo rover team

# Team SAMURAI

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Tatsuya Wada

Project manager  
Soft ware  
Parachute  
GPS  
Structure  
Cirkit  
Structure  
Separation system  
Circkit



# “SAMURAI”

- ◆ Rover can move his tail which looks like the sword of SAMURAI.



# Our mission

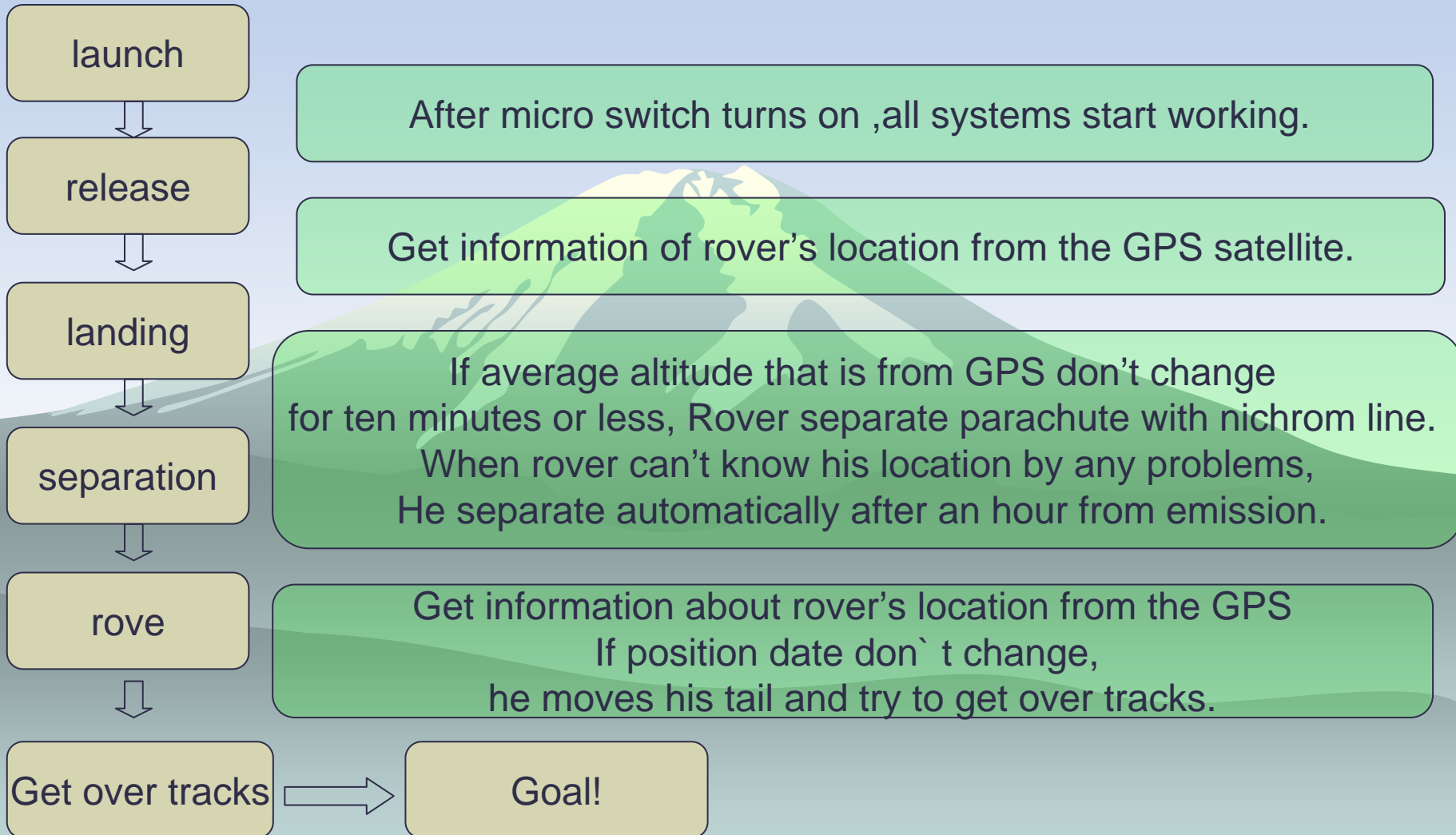
- ◆ Minimum success

Cut the fishing line after landing.

- ◆ Maximum success

Get to the target point within 4 meters radius.

# Mission sequence



# Our features

- ◆ Rover may have to get over tracks several times.
- ◆ He can't do it with two wheels.
- ◆ We came up with installing servo motor that has stronger power.
- ◆ Rover uses servo motor only when he can't move.



# Why we use servo motor

Rover need much more torque when he get over tracks.

Rover which is installed low gear can only move short distance.

Clutch that can change lower gear make system much more complicated.

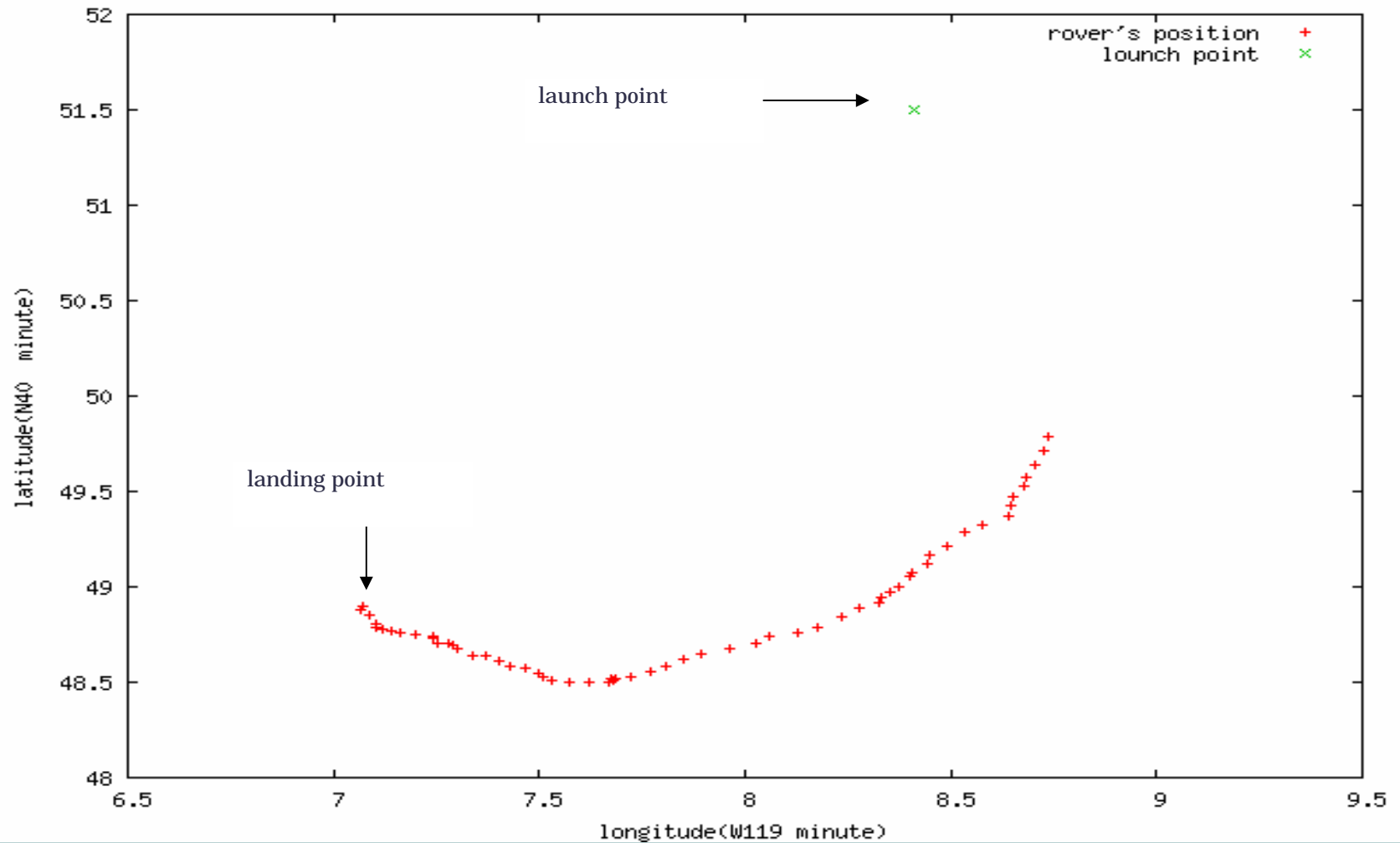
We decided high power servo motor that rover don't use in usual.

# Result 1

- ◆ We had two chance to launch .
- ◆ Rover landed 5.8km away from target point at first time, and 7.2km away at second.
- ◆ Rover didn't move each time after landing.



# First flight position data



# Result 2

- ◆ Rover got position data before landing .
- ◆ This means rover worked correctly after release.
- ◆ After landing, something is wrong with circuit and micro computer.

There were some cracks in the wheel.



# Cause

- ◆ There are no data in ROM after landing.
- ◆ We think something is wrong with circuit or microcomputer because of landing shock.