低温レーザー干渉計CLIO(VII)

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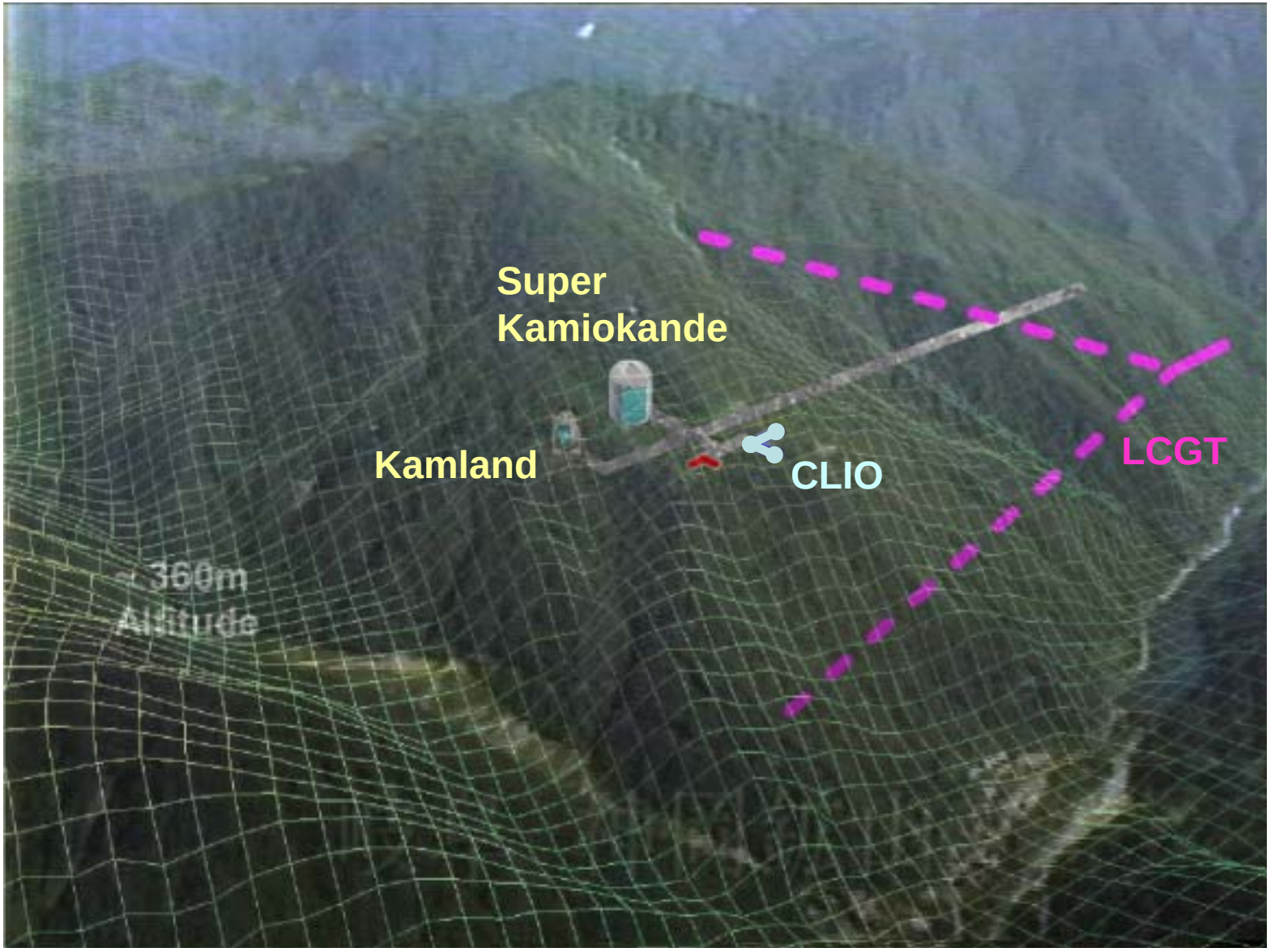
Super
Kamiokande
Kamland
CLIO
LCGT
360m
Altitude

History of CLIO

- 2003 Jan. Experimental cave completed
- 2004 Jan. MC vacuum chamber installed
- 2004 Apr. Input optics installed and MC locked
- 2004 Oct. One cryostat installed
- 2005 Mar. Perpendicular arm vacuum system installed
- 2005 May One cryogenic pendulum installed
- 2005 Jun. Inline arm vacuum system installed
- 2005 Jul. Second cryogenic pendulum installed
- 2005 Sep. Inline arm FP experiment started

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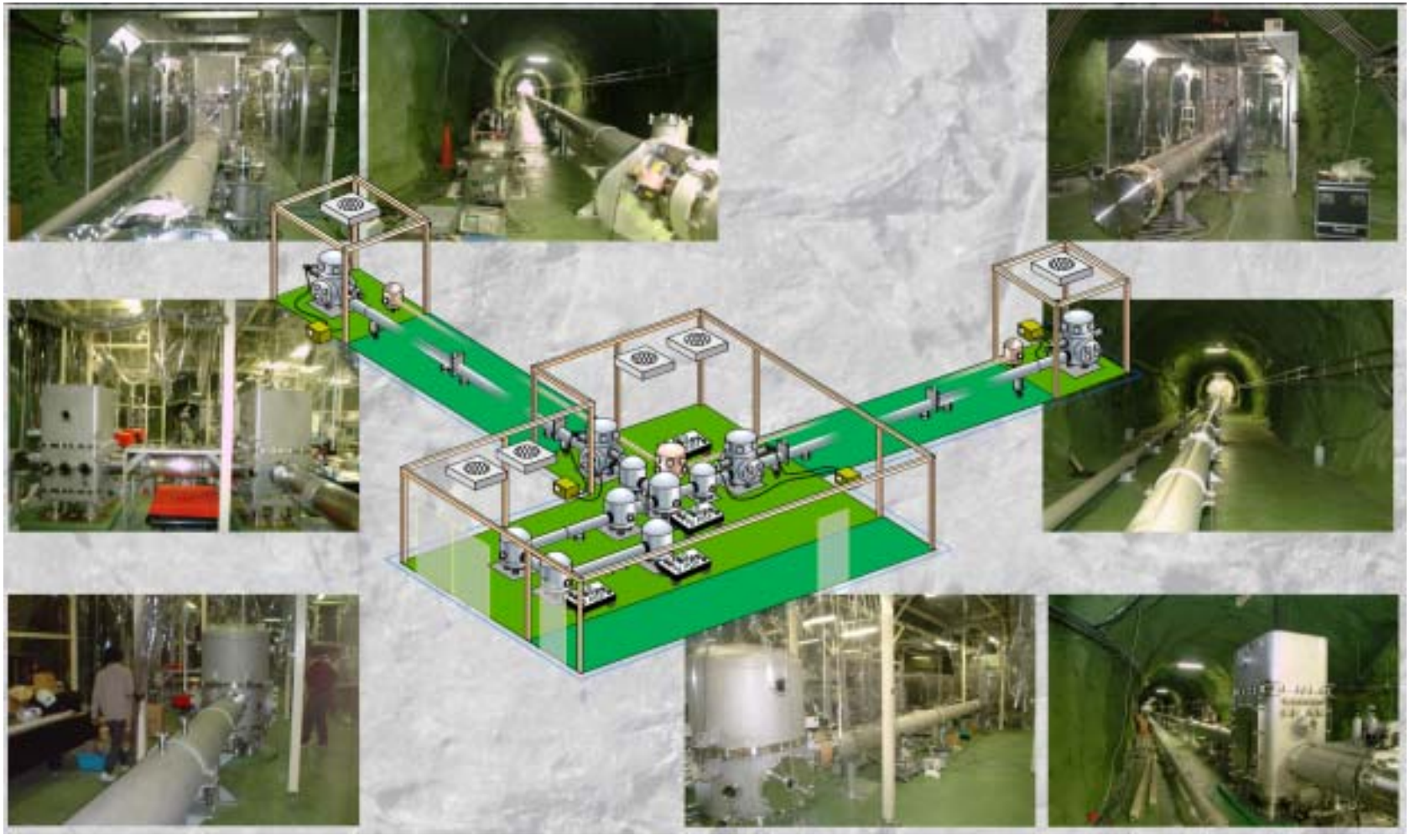
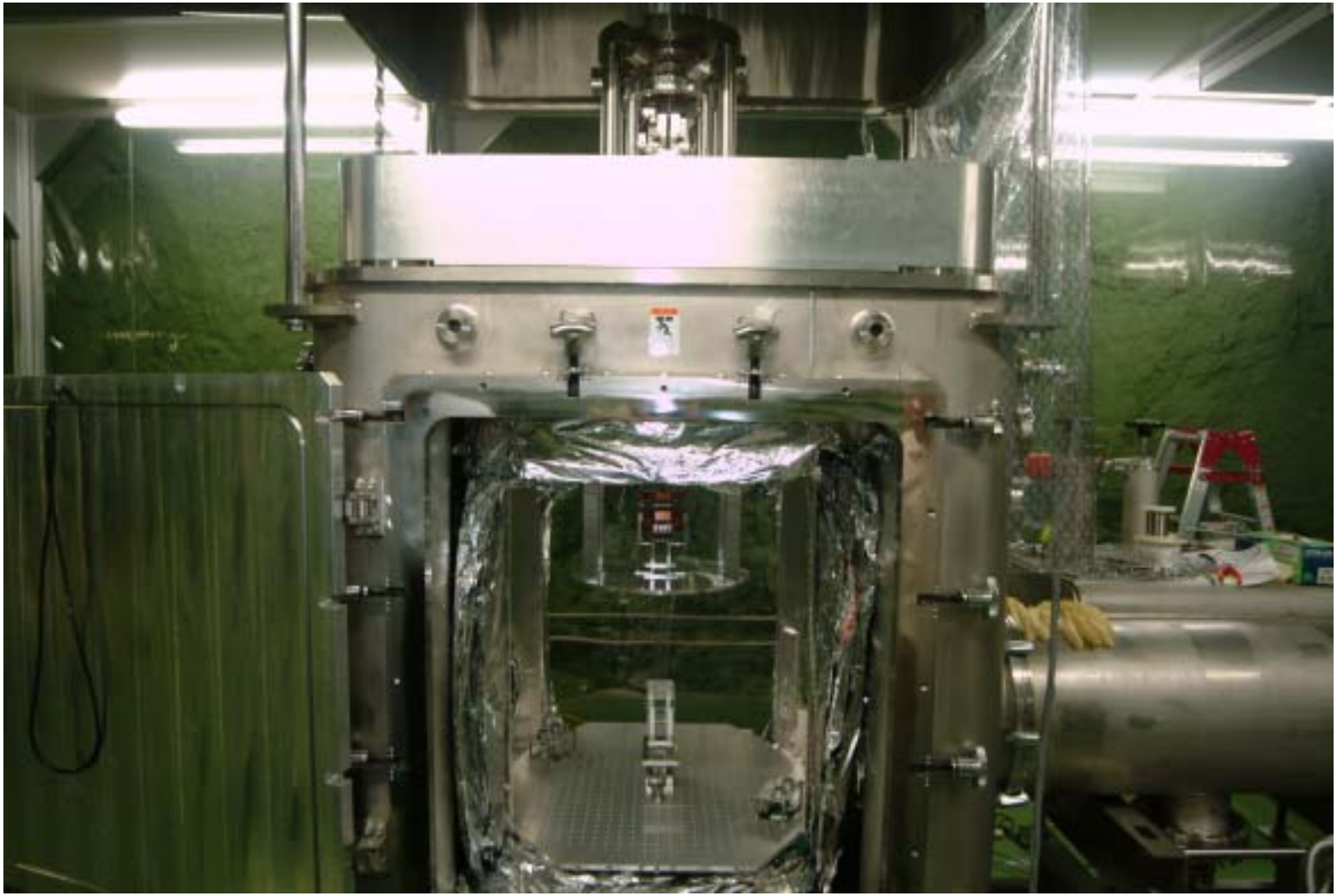
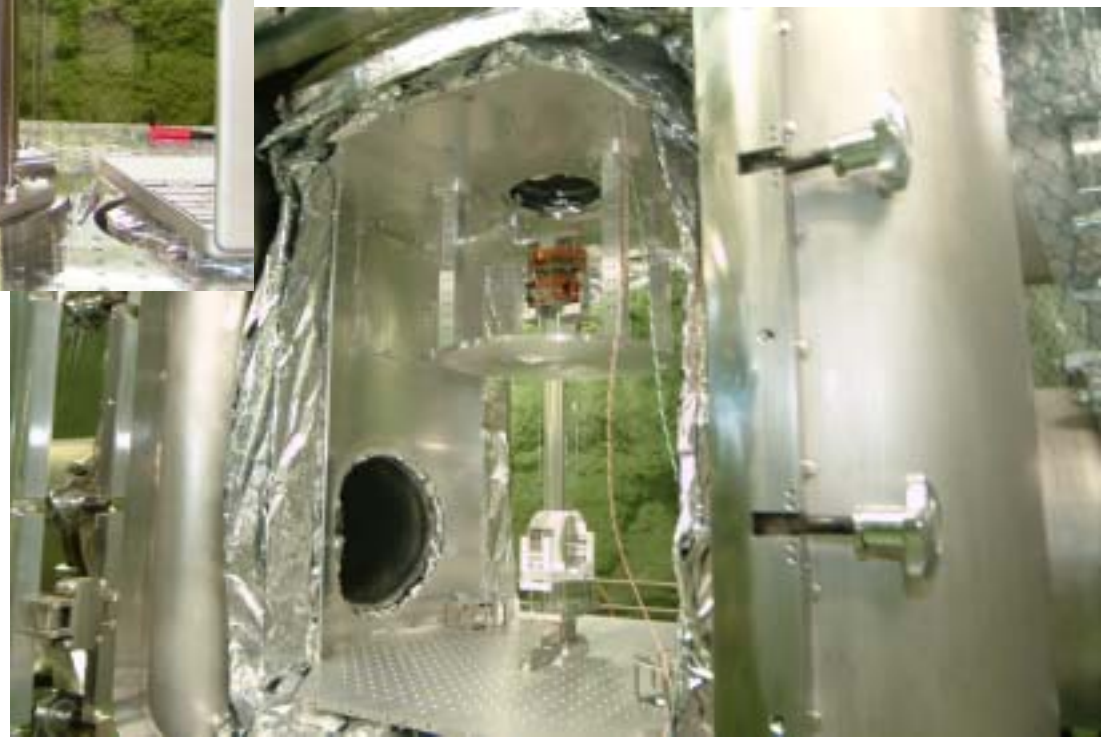
CLIO Vacuum System



Cryogenic Vacuum Tank



Cryogenic Pendulum



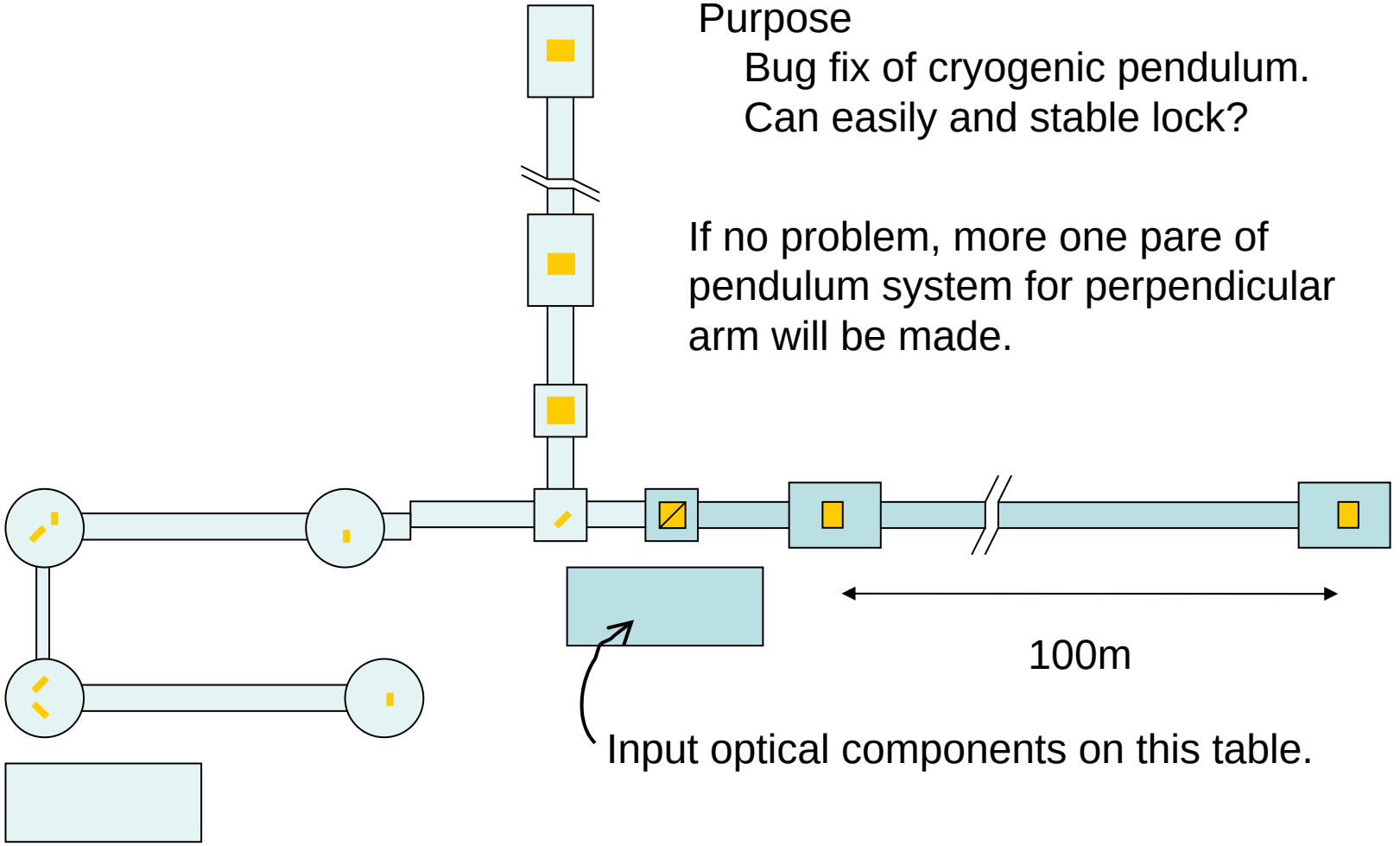
Inline FP Experiment

2005 Sep. Start !!

Purpose

Bug fix of cryogenic pendulum.
Can easily and stable lock?

If no problem, more one pare of pendulum system for perpendicular arm will be made.



Summary of Inline FP Experiment

- Input optics have been installed.
- Incident beam achieved to the end mirror and the reflected beam came back to the near mirror chamber without near mirror.
- Since laser power was small (100mW), the transmitted light through the near mirror was lost.
- The mirror has wedge (10 arc min.) (out of our knowledge).
- Will replace to high power laser.
- Will change incident axis for the wedge.