

# 4Pi Instrumentation Unit



## Where, Where, How deep, How Hot?

Herb Steiner – Design of Container.

Fred Bieser – Circuit Design.

Fred Gray – Read out software.

Jordan Meyer – General Help.

Rich Kuiper - Machining.

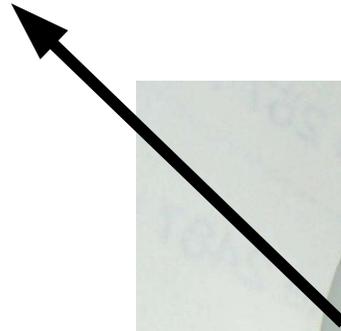
John Wolf – Assembly.

Lindley Winslow – talking, oh I mean testing.

# 4Pi Instrumentation Unit



Pressure Sensor



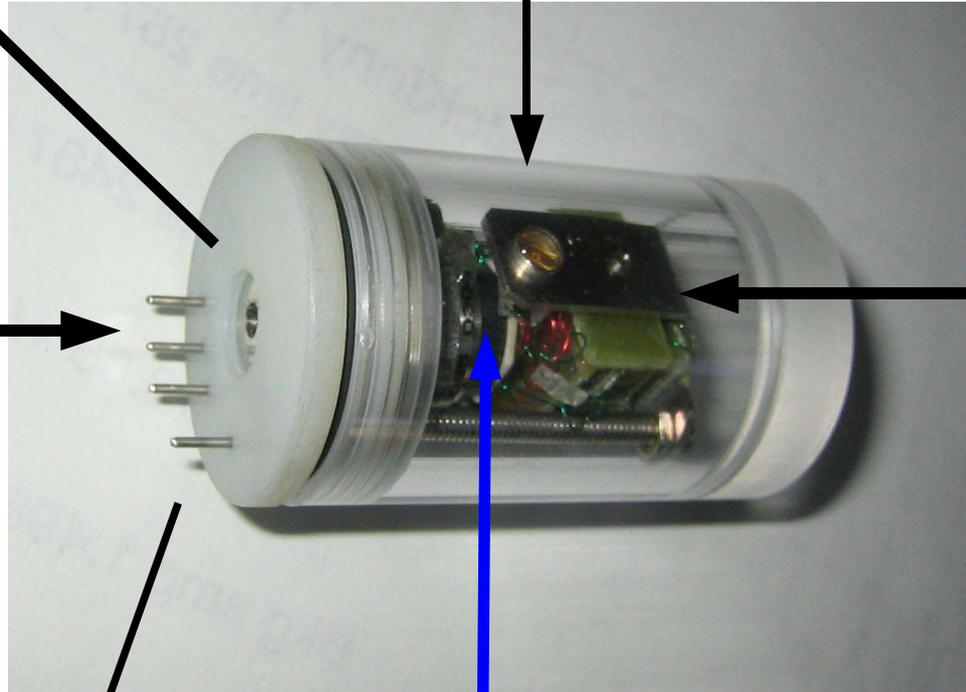
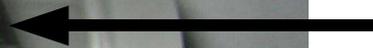
1 of 2 LEDs



Power  
and  
Ground



1 of 2  
Accelerometers



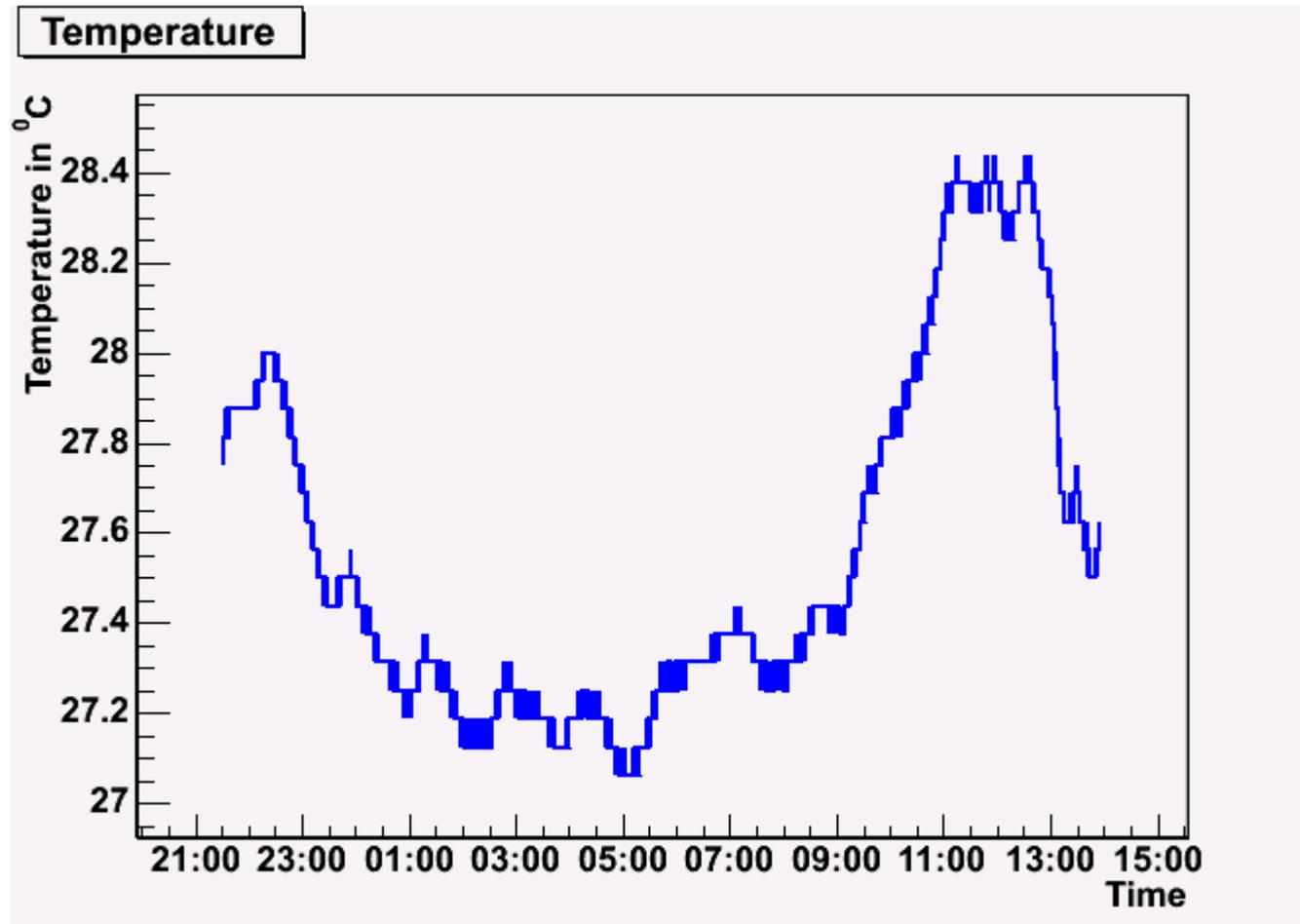
Temperature



One Wire Readout.

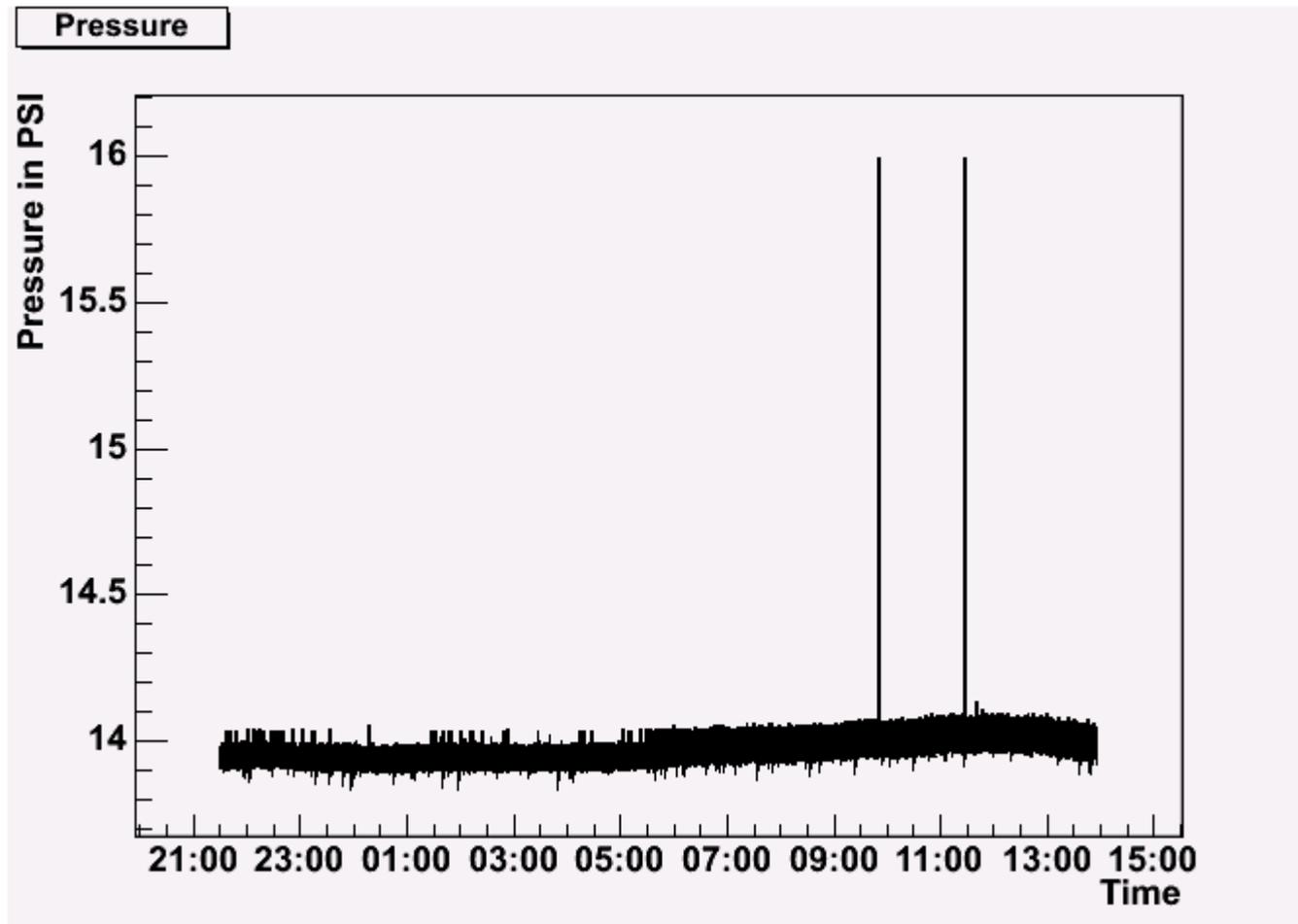


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Temperature in my office on Thursday Night.  
(Unit was sitting in insulation on top of its power supply.)

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Barometric Pressure in my office Thursday Night

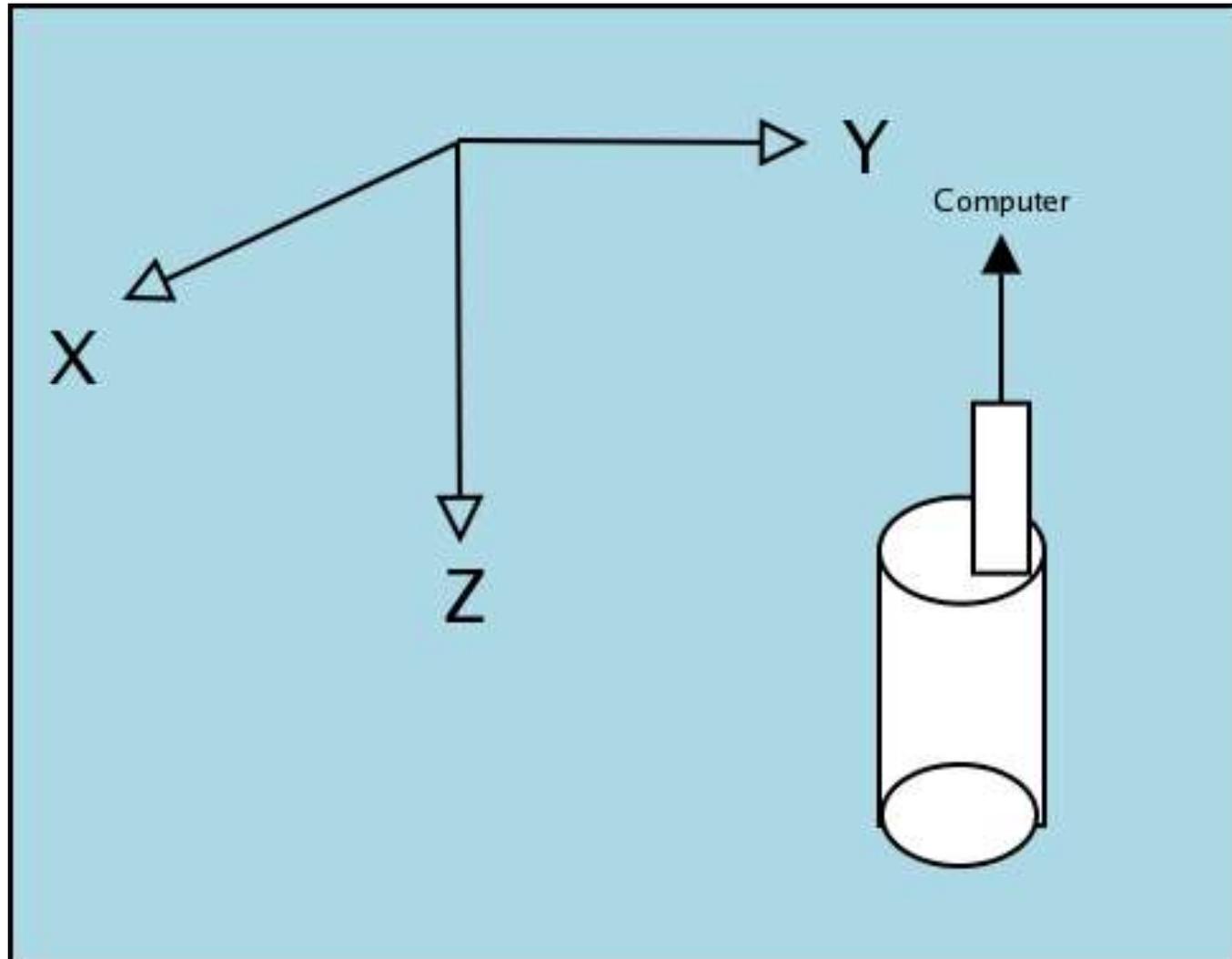


Needs Calibration for resistor variations.

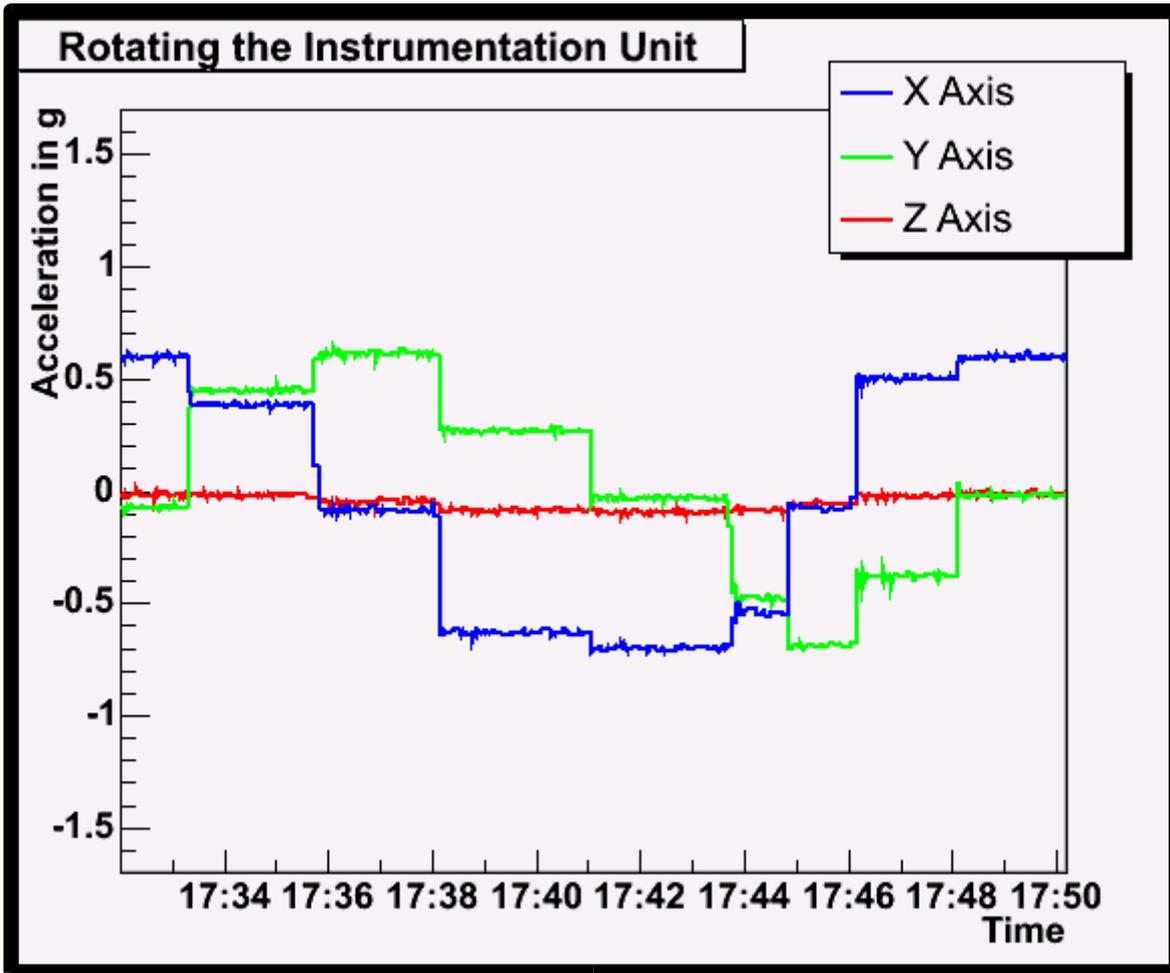
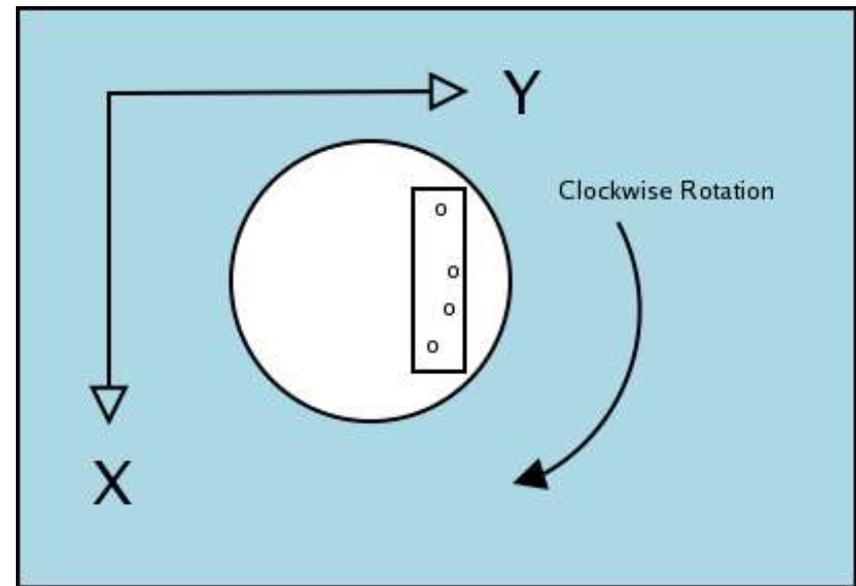
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Now for some fun with the Accelerometers!

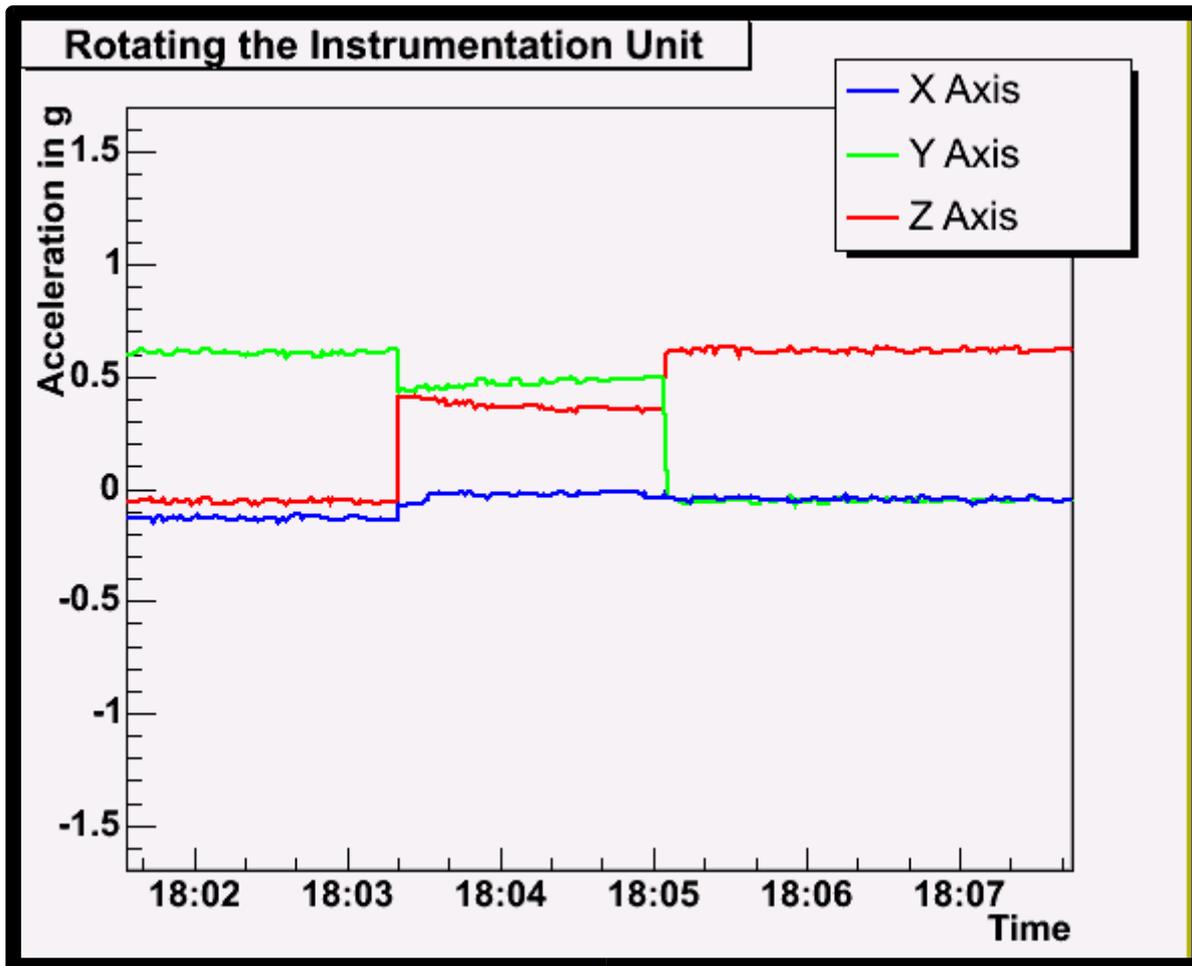
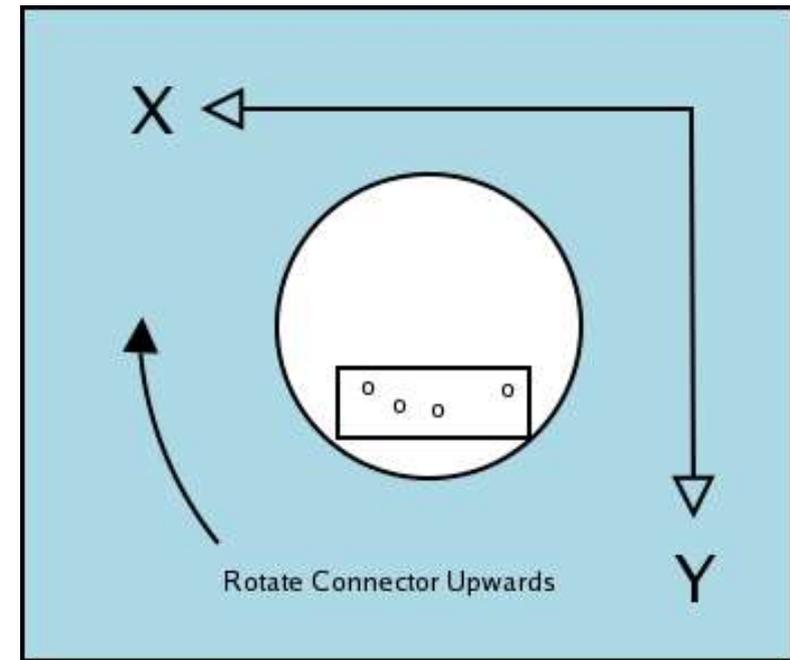


# 4Pi Instrumentation Unit



Follow the direction of gravity relative to the unit as you rotate it.

# 4Pi Instrumentation Unit



Follow the direction of gravity relative to the unit as its rotated in the YZ plane out of the XY plane.

# 4Pi Instrumentation Unit



## Remaining Issues:

- 1) Current Container doesn't allow viton ring make a proper seal. Solution seems to be to pot the unit shut once it has been tested.
- 2) One Wire communication sensitive to shorts and pickup, so much care will have to be taken during fabrication.
- 3) Connector at pivot block must run smoothly over encoders.