Interdependent Researchers of Space

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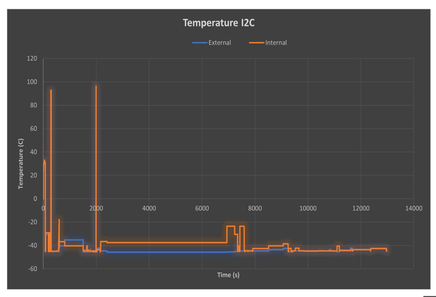
Overview: How do readings of different sensor formats compare to one another? (I2C to analog)

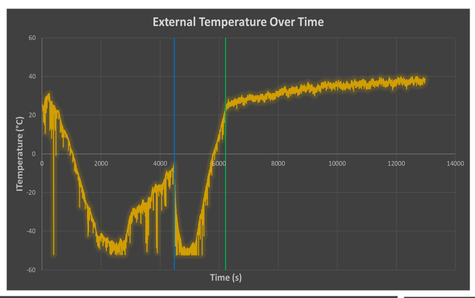
Introduction & Project Description:

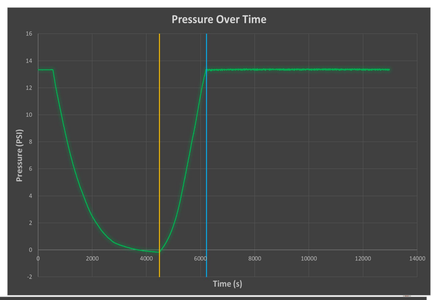
Alongside measuring UV light and a collection of analog sensors (temperature, pressure, and accelerometer), I2C temperature sensors were used to compare readings to their analog counterparts.

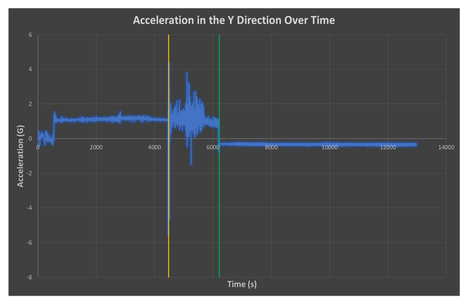
Results:

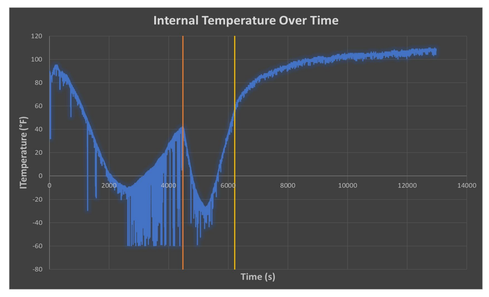
The payload was retrieved successfully, and analog sensors read clear data; however, the I2C data read inconsistently.

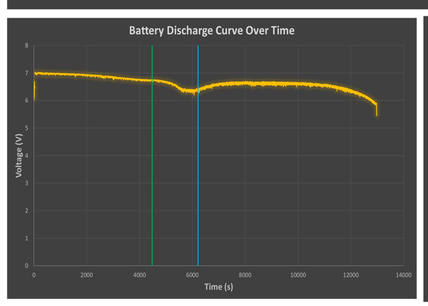


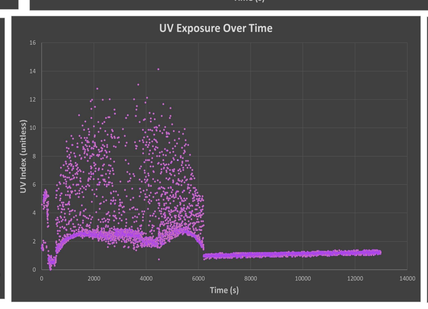


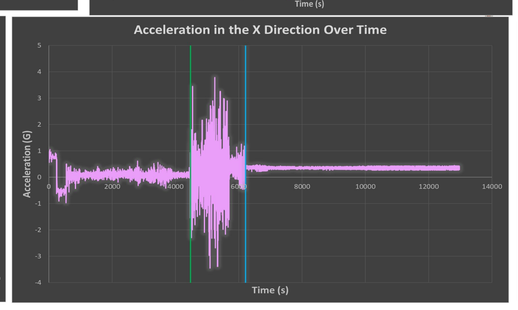


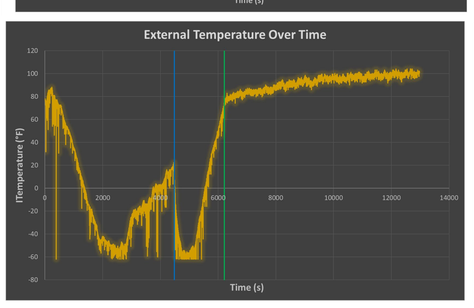


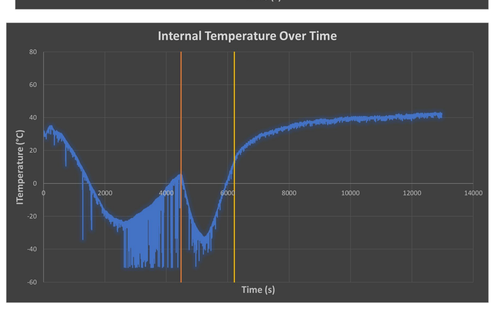












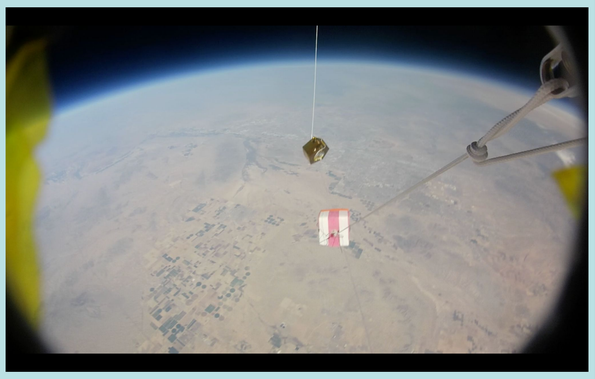
Methods:

Data was collected with a student-made flight data recorder and controlled by a ProMicro. Data was stored on a pair of EEPROMs.

Conclusion:

IRS concluded that our I2C sensors did not read accurately and that stack overflow may have been the issue.

GCC ASCEND Students



In-Flight

Payload

Prelaunch Post-Recovery

Website:

Balloon Pop:

2025 Arizona Space Grant Consortium
Statewide Student Research Symposium

GLENDALE COMMUNITY COLLEGE

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