Sensor and Bus Electrical Design

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Team Goals and Tasks:

- Research and select global position system receiver (GPS), initial measurement unit (IMU), and other sensors as needed and are suitable for space-borne and high velocity applications
- Create and verify that all hardware components can communicate with each other and with other systems on the spacecraft
- Utilize the PC/104 Specification as a standard form factor to connect to other components, spacecraft subsystems and other commercial off-the-shelf (COTS) products
- Develop conditioning circuitry to monitor and reset systems on the spacecraft in cases of adverse operations
- Meet government requirements and standards necessary for spacecraft in low Earth orbit
- Create necessary requirements to implement functionality and communicate with other hardware systems and modules
- Create verification test script to validate the performance of the hardware and software
- Document designs and results as required for implementation by others that want to base their satellite on OPEN

Examples of GPS receivers for use on a CubeSat

Examples of IMUs for use on a CubeSat