Undergraduate Design of a Proprietary, Low-Cost "QUbeSat"

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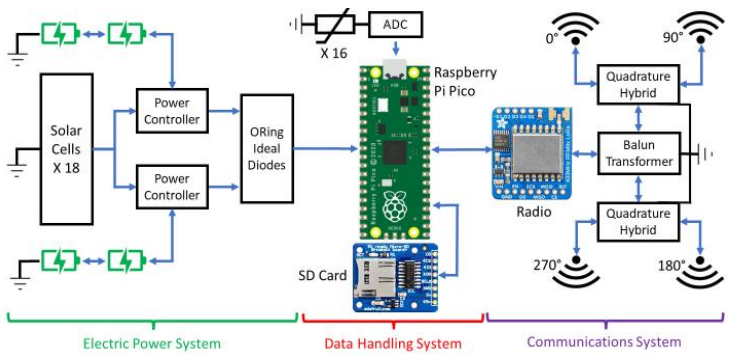
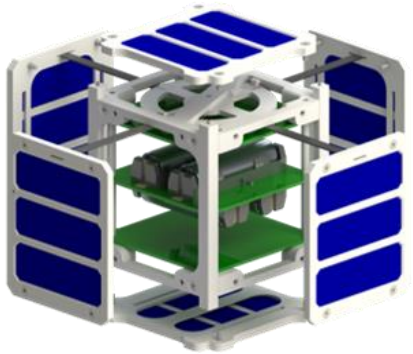
Problem Statement

Design a CubeSat that will test an additively manufactured frame material, collect on orbit frame temperature data, and transmit that data to a ground station The CubeSat should be high quality, durable, meet the requirements for launch laid out in the Cal Poly and NASA handbooks, and must not exceed $2000. The project should be completed by the end of the spring semester (May 2023).

From left to right: Anthony, Rocco, Gary, Napoleon





Approach & Key Milestones

1. Perform literature review of CubeSat specifications and previous projects/designs
2. Design CubeSat assemblies, circuitry, and components to be 3D printed
3. Implement the designs into a final assembly

The final "QUbeSat" can communicate with a ground station, run the deployment sequence, and take/transmit temperature data.

Quinnipiac
School of Computing & Engineering

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