Team 09
Greedo Shot First

Conceptual Design Review

“I love deadlines. I love the whooshing noise they make as they go by.”

-Adam Douglas
Mission Overview

Measure voltage and current output of two different types of solar cells

Expect solar cells to become more efficient at higher altitudes

Why? To understand the effects of atmosphere and altitude on solar cell efficiency for future applications of higher altitude solar power

Idea came from team discussion on the future of clean energy, and how space can factor into that
Design:

How?

Hexagonal body.

Two types of solar cells, six cells per type.

Cells connected to both voltage and current sensors.

Data stored on the Arduinos for later analysis.
Design: Rough Schematics
Design: FBD
Team Lineup

Leader: Peter Rosenthal

Software: Benjamin Bruce and Andrew Dellsite

Structure: Peter Rosenthal, Karim Krarti and Jack Gillett

Hardware: Wyatt Wear, Riley Perez and Karim Krarti
Schedule

Meetings: Weekly, Monday 3-5

Feb 13: Project Proposal

Mid-Late Feb: Hardware Development

Late Feb - March: Software Development

End of March: Finish structural

April 07 - 08: Final weigh in and launch
**Budget**

Solar Panels: $80 - $200

Solar Panel Protection: $40

Voltage Sensors: $15

Current Sensors: $15
Conclusion

“The use of solar energy has not been opened up because the oil industry does not own the Sun.”
-Ralph Nader

Through testing the efficiency of various solar cells at changing altitudes we will better understand if the future implementation of high altitude solar power is a realistic vision.