Announcements:

- HELIOS V?

- Grades posted but behind on class presentations and team documentation

- Questions about grades, send to prof.koehler@gmail.com
Expo This Saturday:

- Comply with Checklist

- Only team members present during judging will be eligible for credit (9 – 10:30)

- Consider Expo a professional event

- Have team videos, pics, code, and data ready to take
Final Stuff:

- Hardware Turn in is December 10\textsuperscript{th}
- DD Rev D (final) due December 15\textsuperscript{th}
- Page limit is open
  > Survey says…

- Community Service Presentations
  Tuesday – December 15\textsuperscript{th} 1:30 PM
  > Survey says…
Final Semester Team Evaluations…

- Due next class

- Make sure your name is on the form
Final Semester Team Evaluations...

- Due at the start of class on 12/10
- Team of six has **1200 points** (seven has 1400)

Total = 1200 points
Final Semester Team Evaluations…

- Say not everyone is pulling their weight

Total = 1200 points
Final Semester Team Evaluations...

- I take everyone’s scores and do the math, taking into account how self scoring compares to team score for you
One Minute Report Questions:

- Lego extra credit?
- Do you provide materials to make a poster for the design expo?
- What was the total weight that the balloon took up (all 10 satellites)?
- Can we launch again?
- What is the soonest we could relaunch our BalloonSat?
- How do they maintain air circulations and pressure in the ISS?
- Are there any requirements for team videos?
- What is the program you download for the orbital mechanics?
Next Tuesday (Class)

Team Videos and Space Grant Projects
Next Tuesday (Night)

Final Presentations

Start promptly at 6 PM

DLC 1B70 - Pizza but BYOB
Next Thursday

Last Class!

Course Review, Possible “Musical Performance” and astronaut call from ISS
Questions?

Colorado Space Grant Consortium
Guest Lecture:

Dr. James Stuart
Entrepreneur

Colorado Space Grant Consortium
Dr. James Stuart:

- Inventor, an author and a serial entrepreneur
- Internationally recognized space consultant
- Consulted to over 110 companies in 12 countries
- 21 patents
- Currently a Board Director of 4 entrepreneurial, high-tech companies, and 2 civic and non-profits
- Been Board Director of 39 companies
- Professional expert witness in 4 major space industry litigations
- Currently CEO of Space Tug Corp.
Dr. James Stuart:

He was…

- **Founding Chief Engineer** of Orbital Sciences Corp.

- **Chief Scientist and Chief Engineer** at Ball Aerospace

- **Assistant Laboratory Director** of LASP
Dr. James Stuart:

He was...

- **Program Manager** at CalTech/JPL of both:
  - **Solar Mesosphere Explorer** (launched 1981)
  - **Mars Observer** (launched 1992)
Dr. James Stuart:

- **Member of three graduate engineering faculties** of the University of Colorado at Boulder for 19 years
  > Electrical Engineering
  > Telecommunications
  > Aerospace Engineering

- **Ph.D. Systems Engineering** (1979)
- **M.S. Operations Research** (1977)
- **M.S. Electrical Engineering** (1974)
- **B.S. in Physics** (1968)
Dr. James Stuart:

- Received NASA's Exceptional Service Medal

- Author of a graduate engineering, two-volume text 'Satellite Communications Systems’ and co-author of 'Telecommunications: An Interdisciplinary Text’

- Published over 170 professional papers
Dr. James Stuart:

- Taught Chris’s Gateway to Space Class at CU Boulder in the Fall of 1988

- Class was amazing…
  - use of paper
  - energy
  - classified secrets

+ inspirational
Guest Lecture:

Dr. James Stuart
Entrepreneur