# 02/28/2019 - Capstone Meeting Notes

**Discussions:**

**Progress:**

* Parker
  + ✔️Lots of project management stuff to cover, lets keep this meeting brief
  + ✔️IAC (international astronautics congress) extended abstract to be submitted later today. I worked on that Tuesday night and have it mostly complete. If accepted I would be presenting in October for this project. 99% certain I can bring you guys as well if interested.
  + ✔️We need to wrap up the 1D sim ASAP with the proper emissivity and view factor values to move into the 3D hollow cube sim Griffin has set up.
    - Timeline for 3D hollow cube:
      * Math model - 3/14
      * Sim model - 3/21
      * Error Analysis - 3/31
    - This is to present at a VIP visit for folks looking to financially back OreSat. I want to use this sim as a prime example for that visit as to what analytical work OreSat is doing to ensure avoiding catastrophic results when it reaches space and possible damage mitigation/control.
    - This also makes our group look *spectacular*
  + ✔️Measurements paper stuff (DUE 3/18):
    - Ordering items - I haven’t gotten the OK from Andrew yet on this. Tuesday we discussed and he raised an issue with the software that the DAQ comes with is not linux compatible. Personally, I don’t have a problem with it but I want to confirm with Andrew that it’s fine. He also raised a concern about the extra $200 for the data logging software.
    - I need to get a timeline to Stu, the graduate student, about when we would be conducting our experiment(s). His conditions for IR camera use:
      * Only when he is on campus (6am - 2pm, typically here 6 days a week)
      * Only in the engineering building
      * He needs to know which room we’re conducting experiments in
    - Probably need to build an easy stand for the IR camera, I’ll petition Stu for a tripod or any suggestions he has for a stand
  + ✔️Capstone paper (DUE [3/15 Noon]) + next presentation(3/12) -> Tyler + Katherine
    - Who is next for presenting? When is our next presentation date?
      * We should present on our progress with the 3D model
    - Capstone paper is something we should be thinking about, rough outline would be nice for this. March 1 is tomorrow, need to put the pedal to the metal
  + ✔️CFD project (Jeremy + Parker only)
    - Get together to work on the current homework together, due on Monday
    - Will be around this weekend and part of tomorrow to work on it/start it
  + ✔️GitHub
    - We *really* need to start updating the Thermal GitHub. Even if it’s just laying the groundwork with rough branches of the work we have done so others can fill in later. I would like 1 - 2 volunteers this meeting to lay out the groundwork for this.
* Katherine
  + Emissivity of anodized aluminum (same from last week - just resharing)
    - <https://www.design1st.com/Design-Resource-Library/engineering_data/ThermalEmissivityValues.pdf>
* Tom
  + Researched sensors and stuff.
  + Sent Parker a few emails.
* Jeremy
  + Played with EDX later chapters for cfd. No other progress.
* Griffin
  + No Progress
  + Will try to refine hollow cube
* Tyler

**Action Items:**

**Important notes for Ansys:**

**Important dates:**

* Feb. 28 Extract data from 1D sim (run w/ proper emissivity and view factor values)
* March 15 Create a math model for the 3D sim
* March 22 Create an appropriate sim model
* March 29 Finish post processing and error analysis