8/4/2026

Summer 26 Weekly Meeting

Tuesday, 8/4/26, 7pm, 33-218; https://mit.zoom.us/j/96034141190

Attendance: Sophie, Liam, Asael, Armaan, Ajibola, Aleks, Akshay, Izaan (maybe), Christiana, Liam

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During this meeting, we went over the LEONIRD payload research updates. We are still waiting on Monagoz and Ryan to give their updates. Anyone who wants to add their notes can use the LEONIRD payload page in Confluence. We also discussed Onboarding needs for the upcoming semester, including our plans for sensors and components.

You can view the meeting agenda here.

- **LEONIRD --**
    - Over the past week, people researched various topics to help decide what to do with the payload.
        - FPGAs
            - Radiation tolerance is the biggest issue, but since it is designed to be reflashed, we won't have to worry about radiation. It seems like a very good option with few drawbacks.
        - F'
            - Sequencing is one limitation. We have contacts with the developers, who can help us figure out sequencing.
        - Intersatellite Comms
            - Pursue a secondary transceiver for LoRa-based inter-satellite communication with co-launched 1U satellites
        - MPPT
            - Implement per-panel current/voltage sensing routed to a microcontroller; separate controllers per solar panel preferred for fault resistance
- **Onboarding --**
    - One question that still remains is the power distribution for the balloon payload. We would like to have everything assembled multiple days before the launch, so minimizing the number of switches/batteries is preferable. The GoPro requires its own charger, so a battery block could be one option. It would also be ideal to have all the sensors on a single board so they share a power source and we can avoid daisy chains.
    - We are going to use the same LoRa as in the last launch and use the ARPS as a secondary radio.
    - Overall, we need to finish designing the payload and gathering a list of items needed for the fall.

We have confirmed lab space, but the location and extent are unknown.