Design Review 01 Agenda - CubeSAT
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1. Design Review 01 Comments
   a. Subsystem Rundown
      i. Power
      ii. Antenna control
      iii. Antenna array
      iv. Motor control / deployment
      v. Testing Apparatus
   b. Most vital component updates
      i. BFIC
         1. One sourced, only 8 channels changing the requirements of the system
         2. Issues with integrating with board, discussed later
      ii. LNA
         1. Moved to only 8 LNAs and 8 Antennas due to BFIC
      iii. ESP32-S3
         1. Exact ESP32 processor chosen, fulfills all requirements of the project
   c. Major Hurdles
      i. BFIC mounting
      ii. Attainment of parts in timely fashion
      iii. Routing of three different voltage paths
         1. 3.3V, 4V, 5V
      iv. Board construction for high frequencies
         1. PCBWay Pricing
      v. Proper connecting of high frequency signals
         1. Connectors = $$$
   d. Design Review 02 Plan
      i. Present preliminary board design
         1. Finish single antenna design in coming days
         2. Expand from this to the full 8 antenna array
      ii. Source necessary breakout boards, with ordering happening very soon
         1. Work with Chisum and partners to get more difficult to acquire parts
      iii. Complete necessary software for antenna control and processing
         1. Meeting with Wei to get direction
      iv. Construct subsystems individually for demonstration

2. BGA Issues - BFIC
    a. Soldering in house vs 3rd party
    b. Breakout board feasibility?
        i. Proto-attachment board
3. Chisum Content
    a. Meeting with Chisum Monday 2/26
        i. Noise/waveform test to learn more about antenna behavior
    b. Meeting with Wei Monday 2/26
        i. Review particle swarm algorithm
        ii. Start forming lookup tables for testing in Design Review 02
4. Action Items
    a. Start ordering parts ASAP (2/24/2024)
    b. Meetings with Chisum and Wei (2/26/2024)
    c. Investigation of complex PCB feasibility (02/29/2024)
    d. Continue development of initial board design (03/04/2024)

Schafer
- Addressing: set pin address at beginning and then never change, or do we need to be able to change it (have data access to it)?
- It's murder on the dance floor
    - You'd better not kill the groove