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AI-generated content may be incorrect.

Connor Major

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*Logbook*

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| **Date** | **Work Accomplished** |
| **2/04/25** | **Preliminary work & general advice**   * **Set up a git repo for my project** * **Set up logbook** * **Sought advice from a BINAR member in my tutorial class for AERO3000 about general design considerations (usage of single materials, avoiding outgassing materials, fasteners to avoid, thermal considerations to make, and general design directions re: internal structure)** * **Obtained JAXA specs, previous design files and design specifications from a mechanical member (Sam)** * **Set timeline to have deliverable 1 done and deliverable 2 started by next week** |
| **6/04/25** | **Deliverable 1 draft**   * **Began work on deliverable 1** * **Took notes on relevant JAXA specs both as summary and verbatim in a text file** * **Set timeline to review and have notes satisfactory by next week’s meeting** * **Set goal to have CAD process practiced** * **Noted some points to be clarified for the Cubesat structure requirements, to define the scope of the design. Chiefly, requirements such as access windows, rails needed and deployment are mentioned in the JAXA specs**   **Noted additional specifications referenced in JAXA specs to follow up on: MSFC-HDBK-527F: MATERIALS SELECTION LIST FOR SPACE HARDWARE (JSC-0904F) JMX-2012694 Structure Verification and Fracture Control Plan for JAXA Selected Small Satellite Released from J-SSOD** |
| **7/04/25** | **Deliverable 1 draft**   * **Reviewed and updated deliverable 1 text** * **Received and reviewed the design documents for the current design from Samuel** * **Updated my copy of inventor to the latest version, to be able to open the current design files** * **Followed up on previously noted add’l specifications and updated deliverable 1** |

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| **9/04/2025** | **Week 3 Workshop**   * **Attended Week 3 workshop** * **Updated inventor, again. (Woo….)** * **Updated my design drawing template as part of updating inventor to meet standard Australian guidelines** * **Finished deliverable 2** * **Received guidance on later deliverables regarding the resolution of required design, assumptions.**     **Design Template**  **Updated github with Deliverable 1**    **Sample of Deliverable 1** |
|  | **Updated Inventor and made a test model + drawing**  **FEA learning [list resources]**  **Add sc’s for all Formatted Deliv. 1 as .md file** |
|  | **Researched different approaches to cubesat structure**  **Took notes**  **Began research document**  **Asked team members about research document** |
| **11/04/25** | **Researched conceptual designs for cubesats**   * [**https://pressbooks-dev.oer.hawaii.edu/epet302/chapter/4-6-structural-analysis/**](https://pressbooks-dev.oer.hawaii.edu/epet302/chapter/4-6-structural-analysis/) * [**https://www.researchgate.net/publication/317209080\_CubeSat\_System\_Structural\_Design**](https://www.researchgate.net/publication/317209080_CubeSat_System_Structural_Design)   **Read and took notes on NASA cubesat structures documentation**   * [**https://www.nasa.gov/smallsat-institute/sst-soa/structures-materials-and-mechanisms/**](https://www.nasa.gov/smallsat-institute/sst-soa/structures-materials-and-mechanisms/) * **6.2.4 particularly relevant** |
| **13/04/25** | **Researched COTS cubesat designs**   * **EXA KRATOS 1U platform** * **Pumpkin CubeSat Kit** |
| **16/04/25** | **Week 4 Workshop**   * **Further work on deliverable 2** |
| **23/04/25** | **Week 5 Workshop**   * **Further work on deliverable 2** * **Investigated AlAinSat-1** * **Worked together with Thomas Unipan. Had him go over my design notes** * **Investigated Greek cubesat** |
| **27/04/25** | **Made first 2 designs** |
| **30/04/25** | * **Week 6 workshop** * **Reviewed concepts with Sean** * **Began first CAD concept (ran out of time)** |
| **07/05/25** | **Week 7 workshop: Further design work**  **Started CAD model and refined design further with mechanical and electrical leads** |
| **14/05/25** | **Week 8 workshop: Logbook finalization**  **Began the process of finalizing my logbook and my work to submit** |

### Deliverables completed

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| Deliverable | Status | Link |
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### Reflections