Matthew Baker

Engineering Journal

Senior Design Capstone I – Fall 2023 Semester

**Date: 9/14/23**

**Type of Meeting: Class**

**Present? Yes**

**Discussion:** Selected Scrum Master (Michael Kisellus), presented with general, “starter” vision and backlog document, discussed basics of type of device and purposes. Set up team meeting with Dr. Brown for Friday (9/15/23) to discuss backlog and vision document as well as any materials and documentation from previous design groups. Setup GitHub repo and discord server communications as well as event invitation setup. I volunteered to handle documentation collation, editing, and processing.

**Date: 9/15/23**

**Type of Meeting: Meeting w/ Product Owner**

**Present? No**

**Discussion:** I was absent during this meeting due to a family emergency, however the group assured me that all details would be placed on the Discord and shared with me.

**Addendum:** Product backlog posted as ‘Issues’ in the GitHub repo.

**Date: 9/19/23**

**Type of Meeting: Class**

**Present? Yes**

**Discussion:** Received draft of backlog from Scrum Master, instructed to prioritize the backlog as to completion time and necessity for the system overall, completed same. I volunteered to be the main editor and collator for the different design and requirements documentations as well as assisting in the case design in terms of the cooling system of the unit. Also reviewed the nature of the SRS and SDD with the Scrum Master.

**Date: 9/21/23**

**Type of Meeting: Class**

**Present? Yes, remotely**

**Discussion:** Created a mock-up for the cooling system in FreeCAD, utilizing a piece of sheet metal attached to a pre-fabricated 80mm heatsink and fan (PDF exported image pushed to repo). Working on a more involved design involving a heatsink designed to extend outside the case.

**Date: 9/26/23**

**Type of Meeting: Class**

**Members Present: All**

**Discussion:** Scrum Master presented us with what was needed for SRS and SDD, including detail work and parts lists for all components. Each member came in with their needs and ideas for what we are working on. Dimensions of parts and data sheets shared amongst the group. SRS and SDD opened on Google Docs for ease of editing.

90% Completed mockup of cooling system in FreeCAD, added cooling system section to SDD, changed cooling system design to a intake-exhaust tunnel design using sheet aluminum and the chosen fans.

**Date: 9/28/23**

**Type of Meeting: Class**

**Members Present: All**

**Discussion:** Follow up on previous meeting, ensuring that we are on target for completion of SRS and SDD.

Completed temperature-fan curve chart and added to SDD. Updated parts list to include fan controllers to track multiple thermal zones within the unit/case.

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**Discussion:**

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**Discussion:**