MEETING MINUTES

# Meeting #: General Description

## Meeting Date: 9-11

## Meeting Time: 5:30pm – 7:00pm

Attendees: Aaron, Gia, Logan, Michelle

Table 1: Meeting Minutes

|  |  |  |
| --- | --- | --- |
|  | **Lit Review Topics:** Align with technical roles (all)   1. Cleanroom Requirements (Materials for metals/plastics) - Gia 2. Fans (Power, Air flow in different shaped rooms, does the filter come in the fan?) - Aaron 3. Filters (Particle counting, HEPA filters) - Michelle 4. Modular Truss/Support Structures (collapsible structure) - Logan   **SOTA Review:** Gia   1. Portable/modular cleanrooms   **Customer Needs:** Logan/Michelle   1. Modular/Collapse 2. Spacious 3. Room connectability (attach clean and gown room) 4. Compliant storage 5. Fan HEPA 6. Generator connection to fan 7. Alcohol safe materials   **Technical Needs:** Logan/Michelle   1. Positive pressure 2. Dimensions (10x10) or (10x20) 3. Particle counts (Level 7 CR) 4. FFU power requirement 5. Generator voltage output 6. Filter level 7. Temperature/pressure readout (20-25 C) 8. Load bearing N?   **Mathematical Modeling:** All   1. Material Analysis 2. Positive Pressure (Thermodynamics Analysis)  * What wall “structure” would be best  1. Fluid Analysis (Air Flow)  * Different fan locations * Mass flow rates through exits  1. Truss Structure Analysis  * 10x10 or 10x20 – can a 10x20 be used without supports? * Rigidity/stiffness requirements – does outside loads displace the structure?  1. Electrical Load Analysis:  * Spreadsheet for all the currents and voltages and power that are in the cleanroom. Determine the size of battery that would be needed to run the system in a power outage * UPS System that charges itself offline and can last a couple of hours   Questions for Becker:   * Power available for the fans * Other loads inside for power? * Hanging loads from the walls/ceiling? * Electrical and mechanical loads? * Rigidity requirements? * External point load required? * Biomedical club for fundraising? * NAU or Becker owned? * If other people are going to use the cleanroom can they match the 10% funding? | ENG 314 |

Table 2: Action Items for Next Meeting

|  |  |  |
| --- | --- | --- |
| **Action Item** | **Person Assigned** | **Due Date** |
|  |  |  |