

Clean Dream Team



Project Manager/Document Manager: Katie Hoffman

Budget Manager/Web Designer: Hannah Reed

Client Contact/Document Manager: Daniel Marquez

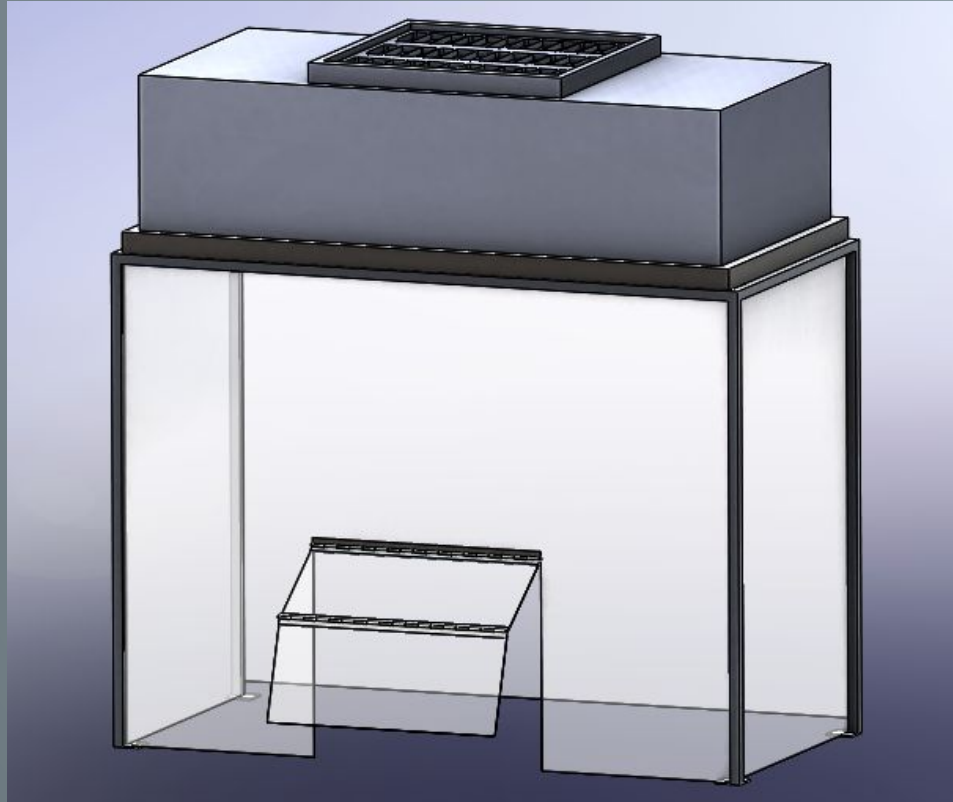
Project Description

- The objective is to design and build a clean hood and a portable clean room.
- The clean hood is to be around 2' x 4' x 4' it will be designed to fit over small equipment and induce a positive pressure flow of clean air within the hood.
- The portable clean room is to be around 6' x 8' x 8' it will be able to be disassembled and reassembled, carried by 3 - 4 people, and output positive pressure creating a clean environment within.

Project Description Cont.

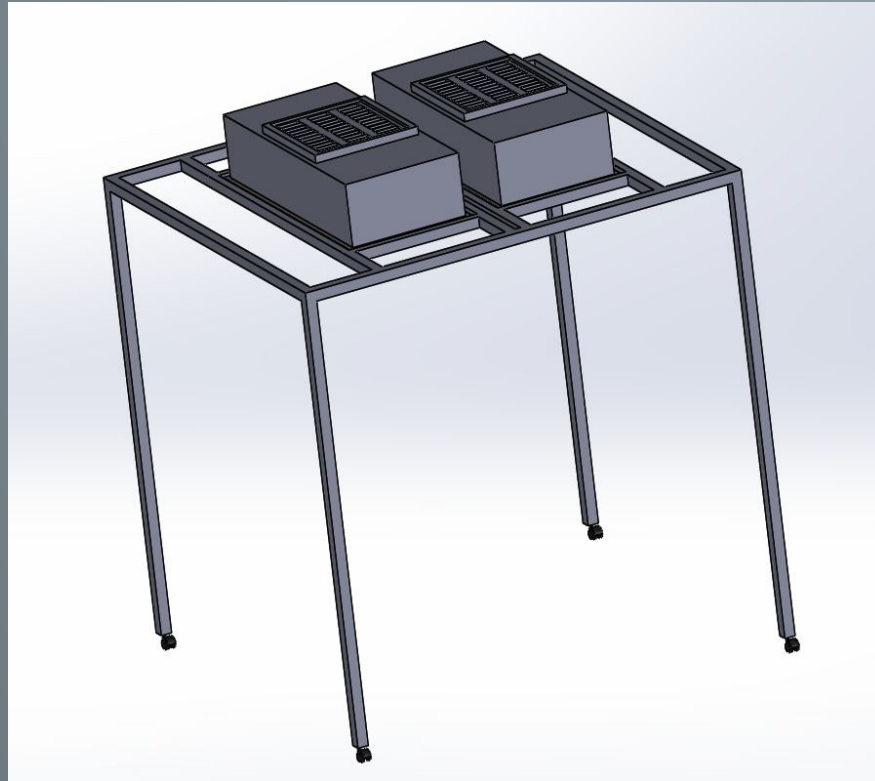
- Our client is Aneuvast Technologies Inc., overseen by Dr. Becker. His company researches and manufactures microcatheters used in the brain.
- The project is important because it benefits the client's research and products manufactured.

Design Description - CAD Package Hood



Hannah Reed

Design Description - CAD Package Room



Design Description

Hood

- 1 FFU
- Aluminum support frame
- Polycarbonate hood
- Double hinged door
- Top rubber lining

Room

- 2 FFUs
- Aluminum framing
- Plastic walled lining
- Duralock velcro tape
- Removable pins to disassemble

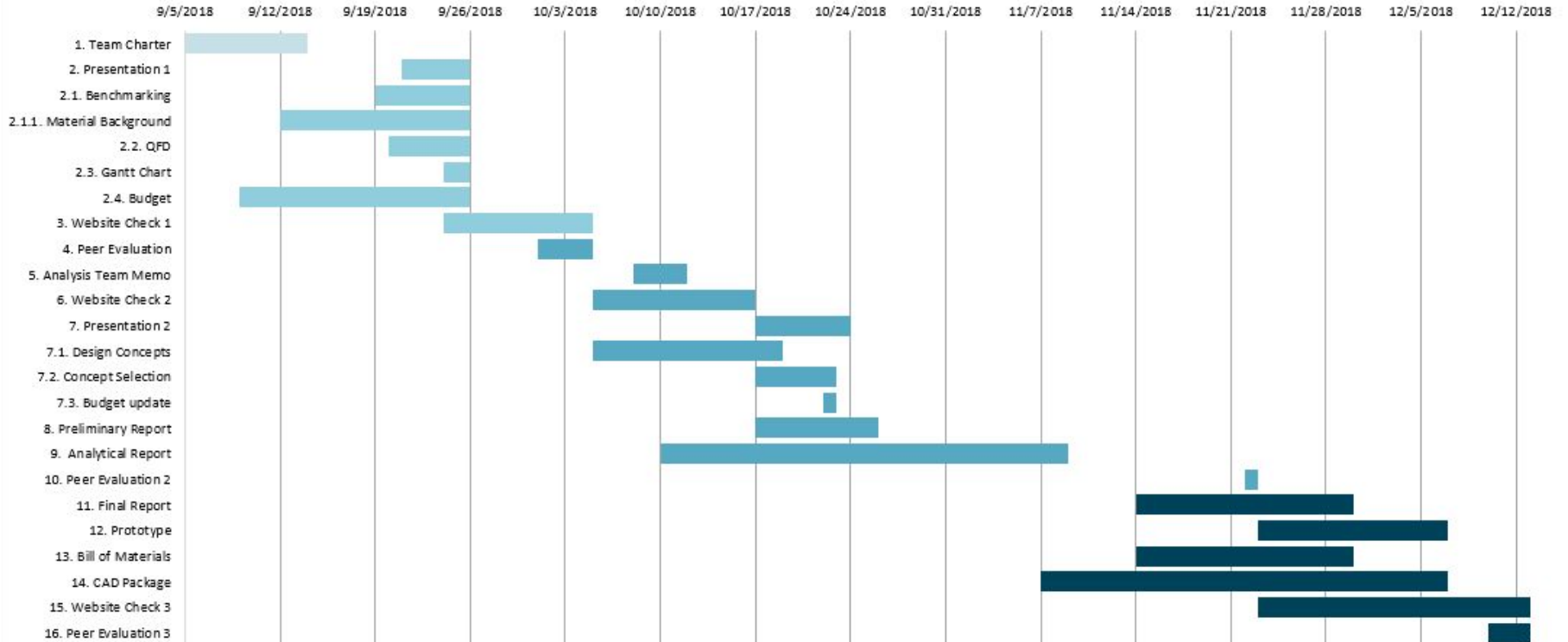
Design Requirements

Customer Requirements

Inexpensive	Under \$1000 budget
Classification/Clean	ISO Class 10 or below
Portable	Separable/collapsible pieces
Positive Pressure	Hood - 80999 Pa, Room - 81015.5 Pa
Visibility	Hood - Polycarbonate, Room - Plastic wrapping
Durability	Aluminum framing
Reliability	Aluminum framing and polycarbonate
Noise	FFUs produce about 49 dBa

Gantt Chart

Capstone: Clean Room Gantt Chart



Budget

- Total Budget: \$1,000
- Total Spent: \$0
- Total Remaining: \$1000

Clean Room Team						Allotted Money	\$ 1,000.00
Portable Room & Hood Expense Budget						Total Expenses	\$ 900.49
Brief Description	Quantity	Price Per	Total Price			Remaining Funds	\$ 99.51
Room Frame, Aluminum 6105-T5 97"L x 1"H	12	\$ 27.50	\$ 330.00	**			
Plastic sheeting roll 8' x 100'	1	\$ 78.00	\$ 78.00	**			
Polycarbonate 48inx96inx0.125in	1	\$ 140.25	\$ 140.25				
Hood Structure Aluminum Struts 36"x1/2"x1/16"	8	\$ 11.53	\$ 92.24	**			
Polycarbonate Cutting	1	\$ 20.00	\$ 20.00				
Velcro Tape 1"x75'	2	\$ 52.00	\$ 104.00				
Aluminum Joints	16	\$ 8.50	\$ 136.00	**			
** Discounted alternative available							

Continued work

- Meet with Dr. Becker
- Order FFUs
- Prepare for next semester

Work Cited

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- [4] “Fan Filter Unit, HEPA, 120VAC/60Hz, 2' x 4', WhisperFlow, w/o Power Cord,” s. [Online]. Available: <https://www.terrauniversal.com/product/6601-24-H-NC>. [Accessed: 26-Sep-2018].
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- [8] “Modular Cleanroom Solutions,” *Portable clean room - Weaver Technologies*. [Online]. Available: <http://www.weavertech.com/clean-room/portable-softwall-cleanrooms>. [Accessed: 26-Sep-2018].