

| Date: | Title & Purpose: | Time & Duration |
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| Nov 3, 2020 | <p>Milestone 0 and 1 Members were introduced to each other, took group picture, and discussed favorite video games. Proceeded throw ideas back and forth for functions, constraints, objectives, and how the project is going to shape up.</p> | 12:30 p.m. - 3 hours, 43 minutes |
| Nov 4, 2020 | <p>Computations 4 Talked to Kevin Gilmore (TA) about program for breaking down lists of products and assessing which ones meet the specified standards.</p> | 11:30 a.m. - 2 hours, 15 minutes |
| Nov 5, 2020 | <p>Graphics 4 Learned how to complete engineering drawings within inventor off a base template McMaster provided.</p> | 2:30 p.m. - 1 hour, 19 minutes |
| Nov 8 th , 2020 | <p>*Design sub-team Luke and Julian met up to talk about refined sketch ideas and plans to execute prior to milestone 2.</p> | 11:30 pm - 1 hour |
| Nov 10 th , 2020 | <p>TA progress meeting: -discussed progress on workflow for computer sub-team and refined sketches for Design sub-team -filled in agenda</p> | 1:00 p.m. 10 minutes |
| | <p>Milestone 2: Design sub-team meeting: formed prototypes in communication with each other.</p> | 1:05 p.m. 2 hours, 40 minutes |
| | <p>Milestone 2: Computations sub-team: compared flow-charts and made pseudocode.</p> | 1:05p.m. 2 hours, 40 minutes |

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| <p>November 11th, 2020</p> | <p>Lab B Q-labs started Worked for a prolonged period in Q-labs. Learned to have the robot act autonomously eventually after trial and error</p> | <p>12:15 p.m. 3 hours</p> |
| <p>November 12th, 2020</p> | <p>Graphics Lab 5 - Assembling glasses - Discussed methods of constraining parts such as insertion or mating.</p> | <p>2:30 p.m. 2 hours, 10 minutes</p> |
| <p>November 17th, 2020</p> | <p>Milestone 3: Design Sub-team: Critiqued each other's prototype models through matrix and discussed improvements for the future.</p> | <p>1:00 p.m. 2 hours, 28 minutes</p> |
| | <p>Milestone3: Computations Sub-Team Compared pseudocode and discussed issues found in attempting to abstract the coding process according to information given.</p> | <p>1:00 p.m. 2 hours</p> |
| | <p>Week 9 Project TA Meeting started Met with our TA Michelle Pham and discussed our progress from previous milestone.</p> | <p>1:10 p.m. 20 minutes</p> |
| <p>Nov 18th, 2020</p> | <p>Materials Lab – Flexor Sensors Discussed material quiz and methodically went over answers.</p> | <p>2:00 p.m. 1 hour</p> |
| <p>Nov 19th, 2020</p> | <p>Computations 5 Went over I/O methods in python along with methods to extrapolate info from files. Ended up creating our own .txt files.</p> | <p>3:00 p.m. 3 hours</p> |

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| <p>Nov 24th, 2020</p> | <p>TA Progress Meeting -discussed adjustments made to pseudocode as per Dami's instructions -talked about improvements made to models as was discussed the week before -planned to have code finalized along with choosing the good copy model design.</p> | <p>1:15 p.m. 10 minutes</p> |
| | <p>*Design Sub-team prep for M4: -discussed pros and cons of each design -tested print times in 3D software and found barrel design to be much more accommodating of time constraint (1 hour without support) -Ryan Isaac discussed with us about design press fitting for barrel design, gave some tips about what to research and place fourth as a consideration for our final deliverable</p> | <p>1:00 p.m. 2 hours, 40 minutes</p> |
| | <p>*Computations Sub-team prep for M4: -experimented around with positions in q-labs and adjusted the code to grab the container -had to be within precision of 0.1 degrees to ensure gripper fingers did not phase through floor -left some position adjustments within the code to be finished for upcoming week</p> | <p>1:00 p.m. 2 hours, 30 minutes</p> |

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| <p>Nov 25th,2020</p> | <p>Hip Implant Materials Lab -Used Granta to conduct material selection which would be ideal for a hip implant (reference week 10 lab B) Conclusion: Tensile strength, Shear modulus, CO2 footprint, Fatigue strength, Mechanical loss coefficient Final choices: Titanium, Stainless steel, Cobalt-chromium alloys</p> | <p>1:00 p.m. 50 minutes</p> |
| | <p>*Determining Project Interview Discussed when it would be optimal to book interview.</p> | <p>9:35 p.m. 20 minutes</p> |
| <p>Nov 28th, 2020</p> | <p>Final Design Consultation Design sub-team completed some final edits for the g-code file of their container after designing a better system for securing the tool. All constraints were thought to be met but further discussion will be done with the TA before submitting G-code</p> | <p>3:00 p.m. 2 hours</p> |
| <p>Nov 30th, 2020</p> | <p>*G-code consultation for interview submission w/ IAI (Dami Oriole) Discussed final concerns of container involving its fillets and possible combination into a one file instead of a press-fit which may have not coincided with constraints. It was found the fillets (2.5 mm) were unsafe to do with the size of our parts and it was necessary to either create a gap</p> | <p>12:30 p.m. 3 hours</p> |

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| | <p>between the storage barrel and outer rectangular prisms for a press fit (assembly) or to lengthen the rectangular prisms all around to ensure 4mm constraint was met with edge of storage barrel (single part). The fillets were discarded, and it was elected to go with the press-fit for submission. It was also found the object needed to be cross sectioned to be printed with minimal support.</p> | |
| | <p>*Team Meeting for deliberations of submissions Team was pulled together to discuss what needed to be handed in before the design studio that was a day ahead. Roles were also assigned for research of biomedical devices.</p> | 4:30 p.m. 1 hour |
| Dec 1 st , 2020 | <p>Design Review w/ TA No issues listed with either sub-team except for inconsistency with box placement within the simulation via the computations sub-team. Tweaking will be attempted.</p> | 12:45 p.m. 30 minutes |
| | <p>*Post TA interview discussion/M4 Discussed interview, what was necessary to hand-in, plans for FD, and what each team member should look at finishing.</p> | 1:15 p.m. 2 hours |

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| Dec 2 nd , 2020 | Research breakout room 1 Attempted an executive summary and power point corresponding it on the topic of gallium | 1:00 p.m. 2 hours |
| | Ga LED recycling PowerPoint Finished the latter part of the previous assignment with decorative designs and due deliberation. | 5:30 p.m. 1 hour, 30 minutes |
| | *Design sub-team Finished constraining tool and set up assembly file via pack-n-go for submission to M4 and sterilization container drop-box. | 7:00 p.m. 2 hours |
| | *Computing sub-team Finalized code for computer program drop-box by adding in comments and testing consistency of runs. Ultimately, handed it in and reconvened with Design team to discuss preparation for the interview on the following day. | 8:00 p.m. 2 hours |
| Dec 3 rd , 2020 | *Design sub-team interview prep Went through possible questions about designing the model or different parts. | 2:00 p.m. 30 minutes |
| | *Computations sub-team interview prep Went back over code and recorded runs for evidence when discussing consistency of Q-lab runs. | 2:00 p.m. 30 minutes |

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| | <p>*Post interview</p> <p>Discussed how the interview went for each sub-team, congratulated each other on results, and planned to meet for final deliverable.</p> | 3:00 p.m. 30 minutes |
| Dec 6 th , 2020 | <p>*Final Deliverable Meeting</p> <p>Discussed breakdown of responsibilities for final deliverable template, what to do complete before the 9th, and onion soup.</p> | 8:00 p.m. 4 hours |