**GNG 1103 Deliverable E**

**Deliverable E: Project Schedule and Cost (BOM)**

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Introduction:

This step will see the plan laid out timewise and with each task listed accounted for by members of the group. It will show, in detail, the tasks necessary to accomplish to complete the progress, who is responsible, the general expected time for each task, with a chart to verify, and the dependency of tasks on other tasks(if any exists). It will also show a cost evaluation based on materials and number of prototypes necessary to test the project fully. Finally, it will detail the contingencies put in place in case things in the plan go awry. Furthermore, the deliverable will show preparation for and feedback from the client to show a further source of improvement and confirm the quality of the design. By outlining all of these elements in written form, it is ensured that the project will proceed as effectively and efficiently as possible.

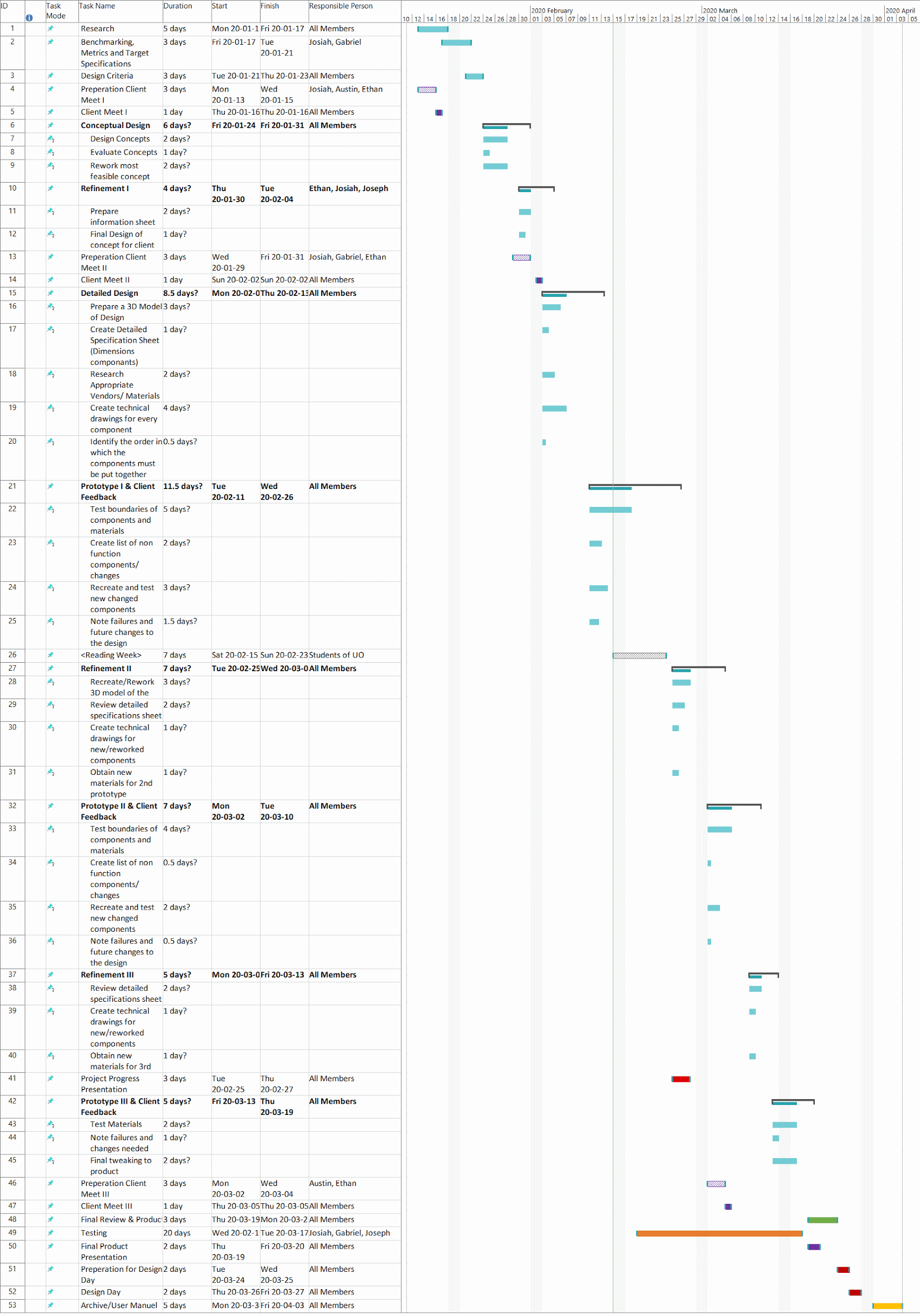
Analysis:

Test Plan:

Main Tasks:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task Name | Duration | Responsible Person | Start | Finish |
| Research | 5 days | All Members | Mon 20-01-13 | Fri 20-01-17 |
| Benchmarking, Metrics and Target Specifications | 3 days | Josiah, Gabriel | Fri 20-01-17 | Tue 20-01-21 |
| Design Criteria | 3 days | All Members | Tue 20-01-21 | Thu 20-01-23 |
| Preparation Client Meet I | 3 days | Josiah, Austin, Ethan | Mon 20-01-13 | Wed 20-01-15 |
| Client Meet I | 1 day | All Members | Thu 20-01-16 | Thu 20-01-16 |
| Conceptual Design | 6 days? | All Members | Fri 20-01-24 | Fri 20-01-31 |
| Refinement I | 4 days? | Ethan, Josiah, Joseph | Thu 20-01-30 | Tue 20-02-04 |
| Preparation Client Meet II | 3 days | Josiah, Gabriel, Ethan | Wed 20-01-29 | Fri 20-01-31 |
| Client Meet II | 1 day | All Members | Sun 20-02-02 | Sun 20-02-02 |
| Detailed Design | 8.5 days? | All Members | Mon 20-02-03 | Thu 20-02-13 |
| Prototype I & Client Feedback | 11.5 days? | All Members | Tue 20-02-11 | Wed 20-02-26 |
| Refinement II | 7 days? | All Members | Tue 20-02-25 | Wed 20-03-04 |
| Prototype II & Client Feedback | 7 days? | All Members | Mon 20-03-02 | Tue 20-03-10 |
| Refinement III | 5 days? | All Members | Mon 20-03-09 | Fri 20-03-13 |
| Project Progress Presentation | 3 days | All Members | Tue 20-02-25 | Thu 20-02-27 |
| Prototype III & Client Feedback | 5 days? | All Members | Fri 20-03-13 | Thu 20-03-19 |
| Preparation Client Meet III | 3 days | Austin, Ethan | Mon 20-03-02 | Wed 20-03-04 |
| Client Meet III | 1 day | All Members | Thu 20-03-05 | Thu 20-03-05 |
| Final Review & Product | 3 days | All Members | Thu 20-03-19 | Mon 20-03-23 |
| Testing | 20 days | Josiah, Gabriel, Joseph | Wed 20-02-19 | Tue 20-03-17 |
| Final Product Presentation | 2 days | All Members | Thu 20-03-19 | Fri 20-03-20 |
| Preparation for Design Day | 2 days | All Members | Tue 20-03-24 | Wed 20-03-25 |
| Design Day | 2 days | All Members | Thu 20-03-26 | Fri 20-03-27 |
| Archive/User Manual | 5 days | All Members | Mon 20-03-30 | Fri 20-04-03 |

Gantt Diagram:



Bill of Material (BOM):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Bill Of Materials |  |  |
| Item # | Item Description | Quantity | Unit Price | Amount |
| 1 | 18 gauge wire | 1 | 7.99$\*1.13%tax (already have) | 9.03$ |
| 2 | MAXREFDES117# Digikey | 1 | 23.97$\*1.13%tax | 27.09$ |
| 3 | AmazonBasics chest harness Go-pro | 1 | 15.99\*1.13% tax | 18.07$ |
| 4 | Teensy4.0 | 1 | 32.00$\*1.13 Tax | 36.16$ |
|  |  |  | Total: | 90.34$ |

FeedBack:

The client seemed to like the chest strap design a lot in terms of aesthetics and functionality. She suggested that the strap be adjustable or perhaps the device should be placed on the back to make things more comfortable for a variety of users including women and people of varying height and weight. She found the method we had devised for detecting overdose and calling people, outlined in previous deliverables, to be satisfactory adding only that it should potentially have a choice feature to call emergency services or chosen people they trust because she believes customers/users would prefer that option to a device that calls emergency services automatically. Overall, she seemed satisfied and impressed with the chosen design and thus we will continue work with this design for the project.

Meeting preparation:

We prepared for the meeting by making sure everyone knew the fundamentals of the project and had reviewed the past deliverables to make sure explain the chosen design adequately as well as the process that lead to it. Furthermore, we made sure to be dressed adequately professionally out of respect for the client.

Prototyping:

The first prototype will be a simple test of the sensor itself and its communication with the cellphone. This will prove that and how the concept behind the design itself works and is feasible. Next, a prototype strap will need to be manufactured to ensure it will be as comfortable as expected and effective in its adjustability and ability to carry the sensor device. Once necessary adjustments are made, a prototype of the entire design can be made using data from the previous prototypes to make it the most effective it can be.

Conclusion:

According to the project plan, and how the team is progressing, we are on schedule with our work. By next week, we should have the first prototype finished, as well as some testing. According to the BOM, our product for the client should cost well below the estimated $100 cost. The extra money could be used to test other materials and further refine the product. If the tests go well with the first prototype, and it’s a success, we will proceed to creating the vest and fitting design (testing comfortability).