MEETING MINUTES

Topic: Customer Needs and Engineering Requirements

Tuesday, September 19, 2017 5:30 pm - 8:00pm

Minutes recorded by Brandon Cook

Meeting called by <u>Joshua Smith</u>

Attendees: Joshua Smith, Brandon Cook, Miriam Deschine, Dan Edmonds

Please bring: Laptops, research, customer needs, engineering requirements

Executive Summary:

The team gathered in the engineering building capstone room with the purpose of discussing background research, the gantt chart, and our customer needs. The meeting began with each member of the team presenting the information they found since the last group meeting. After everyone presented, the team brainstormed to come up with a list of customer needs. Those customer needs were used to generate engineering requirements that were precise and measurable. The next topic of interest was to look over the gantt chart for any missing components or due dates. Finally, the team was assigned roles to have completed by the next meeting.

Table 1. Record of meeting.

| 5:30 pm to 6:10pm | Discussion led by Joshua Smith This meeting is going to consist of gantt chart, research discussion, customer needs, and engineering requirements Joshua talked about the sections of the report that need to be done by the next staff meeting 3 designs should be full write ups by each team member and other less likely designs can be sketched Miriam presented the background research information on the materials used to protect the rocket after launch, no overseas designs similar were found in this industry Brandon talked about research in other industries for weather proofing materials, and devices such as patio screening. Joshua found information on a CAE Aviation hanger that is a quick deployment aviation hanger. It is weather proof and protects from the sun. He found information on a Losberger inflatable shelter that we could also incorporate Dan found information on who else is doing business with Orbital. He thinks we can potentially find information from those companies | Engineering Capstone Rm |
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| 6:10 pm to 7:55pm | Customer Needs/Engineering Requirements Discussion Brandon generated a document in the team google drive for everyone to insert their customer needs or engineering requirements they created Miriam read through the teams initial set of customer needs Discussing protection from sun or rain generated good conversation about material, breathability, temperature concerns with a closed, dark colored shelter Josh talked brought up the idea about thinking about how humans or animals are protected from the sun Miriam talked about covering the top half of the rocket so that we do not have to worry about accessibility around the bottom of the rocket Josh brought up the Simpsons movie for inspiration when they drop a dome over Springfield with helicopters Dan mentioned the pantheon's open roof that allows air flow Brandon started a conversation about heat transfer versus the amount of light allowed to pass through a material. Also brought up the idea of multiple layers for the structure skin Discussed UV resistant materials like aluminum compared to polymers for surface Brandon asked about the formatting of the customer needs and engineering requirements in the report Team began formatting customer needs and engineering requirements Brandon brought up the fact that the design could either be reusable or not depending on which is more cost effective so this should be considered in engineering requirements Dan talked about safety in the case of an emergency storm as part of durability, reliability, or structural strength | Engineering Capstone Rm |
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| 7:55pm to end | Plan for next meeting The next meeting will be held at the Engineering computer cafe at 4:00pm We will be calling Steven to discuss what we have accomplished this week, the customer/engineering requirements we generated, and receive feedback on those requirements We will work on the House of quality and break up the sections of the report for Tuesdays Staff meeting | Engineering Capstone Rm |

Table 2. Tasks Assigned.

| Task | Person Assigned | Due Date | Date Complete |
|------|--------------------|----------|------------------|
|------|--------------------|----------|------------------|

| Background Research | Joshua Smith, Brandon Cook, Dan Edmonds, Miriam Deschine | 9/21/17 |
|---|---|---------|
| Meeting Minutes | Brandon Cook | ASAP |
| Format and Email Steven list of CN and ER | Joshua Smith | 9/20/17 |
| Reading Chapter 6 | Miriam Deschine, Dan Edmonds | 9/21/17 |
| Finish Updating Gantt Chart | Joshua Smith, Brandon Cook | 9/21/17 |

Next formal meeting: 9/21/17, Engineering Computer Cafe, at 4:00pm.