

Project Team Charter

ME476C: Capstone I

Signature Cover Page

Each team member will copy the following statement in their own handwriting (LEGIBLY) in one of the designated areas below:

I agree to do an equal amount of work in the team. I understand that my grade will reflect my effort in the team.

Print Name: Mohammed Janshah

Signature:

I agree to do an equal amount of work in the team. I understand that my grade will reflect my effort in the team

Print Name: Meshal Alghammras

Signature:

I agree to do an equal amount of work in the team. I understand that my grade will reflect my effort in the team

Print Name: Abdullah Almorri

Signature:

I agree to do an equal amount of work in the team. I understand that my grade will reflect my effort in the team.

Print Name: Lahdan Alfihan

Signature:

I agree to do an equal amount of work in the team. I understand that my grade will reflect my effort in the team.

Print Name:

Signature:

Empty box for signature and name.

Team Charter for Senior Capstone Design Project

1. Team Purpose:

We chose this project to help growing children to correct their walking ability. We are aiming to develop a hip exoskeleton that is easy to wear help children walk better. Our priority is to design a lightweight device that is comfortable and easy to wear, stay within the budget \$2,500-\$3,000 and focus on the device angle of motion which can enhance freedom of moveability.

Client:

Our client is Leah Liebelt, we will try to design a hip exoskeleton that meets all client requirements and stay within the budget.

Stakeholders:

Our stakeholders are children with cerebral palsy (CP) disorder. Cerebral palsy (CP) is a problem that affects muscle tone, movement, and motor skills, CP often caused by brain damage that happens before or during a baby's birth, or during the first 3-to-5 years of a child's life [1]. Children with CP disorder have problems with walking balance so they would have difficulties living a normal child's life.

2. Team Goals:

The goals for this team are to efficiently and effectively design a high quality, non-invasive hip exoskeleton. There are several essential aspects of this hip exoskeleton. The first is that it is comfortable and easy to use. The second is that the device supports and allows proper movement of the hip joint. This device also needs to be lightweight, to support user experience and ease of use. This project will be able to be utilized to test and decrease the metabolic cost in children of walking assisted.

The way that this goal will be achieved is through mutual effort and contribution. Our team is committed to working together and contributing toward a high quality outcome. We are committed to getting an A grade on this project, and we will do this by dividing work equally and ensuring we all contribute.

3. Team Member Personalities/Roles/Responsibilities:

Abdullah Almarri:

Logistician Personality.

MBTI score: ISTJ-A personality (Introverted – 51%, Observant – 54%, Thinking – 54%, Judging – 63%, Assertive – 54%)

Responsibilities: Good Communication, Reliable , interactive and always to listen to opinions of others, great significance to the team especially in designing.

Meshal Alghammas:

My Myers Briggs Personality Type is ESTJ. This means I am an Extroverted person, so I enjoy social situations and getting to know new people. I am a sensor, which means I understand information as it comes to me. I am a thinker, which means I am logical and can see situations clearly. Finally, my tactic is judging, which means I am comfortable and confident making decisions. My dominant personality trait is being extroverted, which means I will be able to relate to and encourage the members of my team.

Lahdan Alfihan:

Logistician Personality

ISTJ-A / ISTJ-T

The logistician personality type is abundant, making up around 13% of the population. People who have the logistician personality type enjoy take responsibility of their actions. When logisticians say that they will do something, they do it. People with logistician personality always prefer to work alone.

Mohammed Janshah:

Executive personality

ESTJ-A

I took the personality test and I was amazed with the result. I can say that it might be like me but not in all areas because I don't see myself in some areas like assertivity. This test says that I'm 51% assertive I feel like I think about people sometimes I don't ignore people's ideas and I like sharing points of views and ideas with others.

Role Title	Member name
Project Manager	Meshal Alghammas
Logistics Manager	Lahdan Alfihan
Financial Manager	Abdullah Almarri
Test Engineer	All members
Manufacturing Engineer	Lahdan Alfihan
CAD Engineer	Mohammed Janshah

4. Ground Rules:

Our team members will meet in the lecture time on Monday at 5:30 PM in social and Behavioral Science Building, and we will meet every week on Sunday at noon in place we will choose every week and that weekly meeting will be with our client or our team members. Our team will respect and value each other kindly and professionally.

Our team decision would be based on voting and will be approved if the three members agreed on the same decision. Also, in our meeting each student member should respect others opinions, if there is any group issues or misunderstanding between group member group leader is responsible to solve it fairly. between. The meeting is to complete the tasks on time and discuss

future work the work will be shared in one drive so each member can work and edit the assignments.

Team members are responsible to be on time for the meeting and completing the assignments. There is a penalty if any member did not come to the meeting on time or did not finish his task. The penalty is to apologize and do one extra task.

5. Potential Barriers and Coping Strategies:

There are a lot of barriers that could arise in the senior project. Time management and coming together as a team will be difficult. Everyone has different schedules and it can be difficult to make time for a different class. Even when meetings are scheduled, many people fail to show up because of other things that get in the way. I need to remind everyone that we cannot graduate without the senior project and therefore need to make the most of the time for this project. We need to find a way to organize and not take on more than we can handle.

Another problem would be sharing and selecting ideas. We usually believe we have the best ideas and it can be difficult to accept other decisions. We need to understand that our ideas are not the best and not stop the team from getting better.

Another barrier that might come up is language. Not everyone is a native English speaker and things can be heard wrong. Sometimes we might say something that makes sense to us but not for other people. We need to work on our language abilities and make sure that everything is clear so that other people do not feel like they are being offended. We also need to explain and be clear and apologize for anything we do wrong. This is something that I still work on.

Another barrier is that people will often stop replying to texts or will forget and never reply. Even though someone can miss a meeting if they text the group about the emergency, not everyone does this and it makes it seem like the person does not care. If we do something we need to text others so that they do not do the same thing. We need to work together and help each other out.

Another problem is listening to the group leader. No one likes to be told what to do and many times people in group would not listen to what the leader said and would do their own thing. It is important that tasks be divided and that everyone contributes to the project. Another problem was getting people to complete their work by the deadline. Many times we would be approaching the deadline and the person tasked with the assignment did not do it and they would not answer. This puts a lot of stress and pressure on the group, especially last minute. It is important that we set deadlines before the due date in case this happens. This way we have time to review, see who completed their work and who did not. It gives us more time to confront each other and do a good job.

Reference:

[1] M. W. Shrader, Ed., "Cerebral Palsy (for Parents)," *KidsHealth*, Sep-2018. [Online]. Available: <https://kidshealth.org/en/parents/cerebral-palsy.html>.