NORTHERN ARIZONA UNIVERSITY

ME 476C

To: Dr. Sarah Oman

From: "Team 4" Abdulwahab Zaidan, Ali Abdullah, Omar Alajmi, Salman Malallah

Date: 09/12/18

Re: Project Team Charter

Team Charter for Senior Capstone Design Project

1. Project Manager:

Abdulwahab Zaidan is the group manager.

2. Team Purpose:

The team have chosen this team's formation based on the strengths of each individual in the team and was assigned the best role to fit him. The team's purposes are to build a 3D printed foot prosthetic, that is affordable to the users and open sourced, so that any person in the world can have access to the project's information and can easily download and 3D print the prosthetic foot.

The stakeholders for our project will be any person who has below-knee amputees, and the parents who are responsible for them. The second stakeholders are the companies that produce foot prosthetic. The expectation that the team will face from the stakeholders are having a foot prosthetic which operates 100%, easy to install and remove, inexpensive, and reachable.

3. Team Goals:

The team project will be to print a 3D prosthetic foot. The process that will be done is brainstorming, identifying the problem, searching background, choosing the best idea, building a prototype, and testing redesign. The quality goal of this project is to design a prosthetic leg that can compete with what companies build and at the same time it is inexpensive. In this project all of the team members are willing to do their best to design this project for the people that need a prosthetic foot. Also all of the team member are aiming for A grade because this is one of the team's goals. These goals will motivate the team members to work hard, come up with many ideas, and eventually help people who need below-knee leg.

4. Team Member Personalities/Roles/Responsibilities:

- **Abdulwahab Zaidan** - Team Manager.and Client contact. The reason why I chose these two roles is because I'm excellent communicator, highly organized and have an accurate estimating skill. The role that I have to be doing is driving the team forward by organizing the team meetings and assignments that needs to be done, make them team members to know each other for an easier communication and last is helping them if it is needed. I did the MBTI and scored (ENTJ-A) and my main personality was a commander.

- **Ali Abdullah** - Secretary / document manager. I have took the MBTI test and scored (ESFP-T), which is Extraverted, Observant, Feeling, Prospecting, and Turbulent. My role in this team is the secretary and document manager. I will be responsible of each document to make sure every assignment should be organized, and I'm also responsible for preparing each assignment for the team. I will also be responsible of the meeting minutes and agenda. I consider myself high observer and this is one way to help our team with observing the mistakes that the team might encounter in the future.

- **Omar Alajmi** - Budget liaison. After taking the MBTI test, I have found that I am a Virtuoso person, which means Introverted, Observant, Thinking, Prospecting, Turbulent. Also the reason I chose this role because I have the skill in organizing the budget and look for the right item that can meet our requirements, and in the same time for the best price.

- **Salman Malallah** - Website developer : I have chose to be a website developer because I have a good experience in creating websites for our project. Also I have my own website since 3 years ago, I can keep updating the website for our project daily to make it in a good shape. So, the website developer is the best task for me. In addition, I did the personality test from www.16personalities.com for my personality type and I got (ESFJ-T) as my final result which means that I am easy going to do my tasks.

5. Ground Rules:

The team will meet face to face and it will be once or twice a week depending on the work that needs to be done. Officially the team will meet every Wednesday at 5:00 pm in the engineering building downstairs lab. The roles that the team discussed and agreed with are the ground roles that are added from the professor, and we added new roles to achieve the best group meeting zone. The group added five new rules which are no cell phones during the meetings, always be on time, leave the group meeting if there is an important emergence, ask help if you need it, and vote when having more than one solution or idea. The decisions are made by voting and the higher number of people is the decision picked.

The way that the team is going to handle dissenting views is by showing the one of the team member that has the dissenting view, why the idea might be wrong. After discussing with the team about the group rules and each one had their opinion heard, there is no reason why any of the team members would break the ground rules. If for some reason one of the rules are broken then the team manager will discuss this problem with this individual and if it happens again the whole team will discuss it to that person again about this problem. If the problem happened the third time the team will report this problem to Dr. Oman, and that person will get what he deserves in the peer evaluation. Each team member should work hard in a professional way and most importantly follow the schedule that is done in order to finish the work on time.

6. Potential Barriers and Coping Strategies:

The barriers that the team might face in the future are the an predictable things that may happen, for example being late to the group meetings for any such reason, for example he had an car accident. Other things the team might face that one of the team members does not work equally with others. Another thing the team may face is if any of the team members does not work within the deadline of the assignments, and the most obvious problem the team might face is someone who plays with his phone during the the team meetings and repeatedly leaving before the the meetings end. The team will handle these problems and any upcoming problems is first to talk with the person who is coming with these problems and make sure that he understands the ground rules that he signed at the beginning of this course, and understands the importance of his role in this high sensitive course. If this problem happens again by the same person, the team will report this problem to the main instructor of this course which is Dr. Sarah Oman.

In the past, in EGR 386W class one of our team members had an issue with his teammate coming late every time to the meetings, he talked to him first and after that he always came early to the meetings. Also another incident happened to one of the team members in ME 286 class, he had a problem with one of his teammate about how to design the final project which is literally about a slingshot, so every team member came with a design and none of the two wanted to give up their ideas, so they went to the instructor and he found a way that combines two designs and the team added more things and the outcome was a beautiful design that is very similar to the video game angry birds, it was the most beautiful design in that section, but unfortunately it was not good at competing with other teams. So sometimes if it seems there is no solution between two team members that are arguing about some idea, it is good sometime to give up your ideas for the team's sake or combine two or more ideas together, and other times it is better to go to the instructor to solve problems between team members.

7. Charter signed and dated by all team members and given to the instructor (legible signature, please!). Attach the following page to the front of your team charter.

Project Team Charter
ME 476C: Senior Capstone Design

Signature Cover Page

By signing this document I fully understand that it is my responsibility to be the best teammate possible I can for my team. This means being on time and contributing to all meetings and work related to the project - which includes all course and client driven deliverables related to the team. I will not only complete my tasks as required but I will complete them on time (ahead of time if needed) and I will deliver material of the best quality to represent my team as a whole. Whenever needed, I will ask for help when I struggle, help my teammates when they struggle, and I will communicate clearly and directly on all issues related to the project.

If I do not contribute as required, I understand that my grade could be curved down for poor performance. Evidence of poor performance will be documented in peer evaluations and instructor observations throughout the semester. Specifically, poor performance from two or more teammates in any given peer evaluation cycle will trigger a grade change on related team deliverables. Furthermore, instructor observations during staff meetings, lectures, and presentations can also trigger a grade change on team deliverables.

Salman Malallah
Print Name

Signature

Abdulwahab Zaidan
Print Name

Signature

Ali Abdullah
Print Name

Signature

Omar Alajmi
Print Name

Signature

Print Name

Signature

Print Name

Signature