

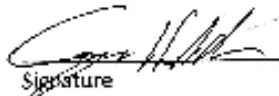
## Project Team Charter ME 476C: Senior Capstone Design

### Signature Cover Page

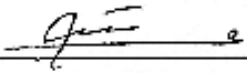
By signing this document I fully understand that it is my responsibility to be the best teammate possible I can for my team. This means being on time and contributing to all meetings and work related to the project - which includes all course and client driven deliverables related to the team. I will 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.**

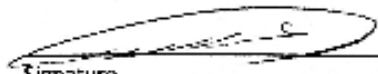
Cooper Holden  
Print Name

  
Signature

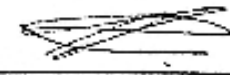
Mohammad Alenezi  
Print Name

  
Signature

Muhammad Alkandary  
Print Name

  
Signature

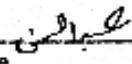
FAHD ALASKAR  
Print Name

  
Signature

Ebrahim alnafjan  
Print Name

  
Signature

Abdalahman Alrefai  
Print Name

  
Signature

1. The team manager for this project will be Cooper Holden.
2. The purpose for this teams formation is to complete a senior design project for the hand powered dental mixer to be used to provide better care to people in areas where access to electricity is not readily available.
3. Our goal is to create a new device that improves upon the previous prototype. In order to accomplish this, our design will be smaller, lighter, and easier to manufacture through the use of composite and 3D-printed materials. Team members will be willing to commit as much time as is necessary to produce a quality product that suits the customer's needs and leaves our team with the final grade of an A.
4. Cooper is a strong leader and has had extensive experience in working with large and, often diverse, groups of people, making him the ideal choice for project manager. His main skill set involves working with anything physical or hands-on, which is ideal for a project that will require a large amount of prototyping. While he is able to work well he groups, he is also slightly introverted and typically works most efficiently when alone.

Mohammad is a very social and outgoing person which makes him the ideal choice for the main client contact for the group. He also has extensive design experience that will be utilized to help the group. He also has experience with 3D printers which will prove to be invaluable over the summer while the machine shop is closed.

Abdulaziz is great at collaborating and interacting with a group. He also has past experience in designing and coding websites. Aziz is also very good at researching and finding information on previous prototypes and ideas.

Fahd has had much experience with editing reports, and as such will provide much of the help in getting reports ready to be turned in. He is also good with managing the time table for the team that will help to determine the pace of the project.

Abdalahman is very good at making calculations involved with both the designing and financing of the project. He is also very good at sourcing materials for the designs. These skill sets make him the ideal choice for budget liaison. He also knows a lot about different materials, and as such, will help to decide what the design will be composed of.

Ebraheem is very analytical and good at conceptual thinking, which will make him well suited to be the Secretary and document manager. This job will give him the chance to use his skill set to make sure that the requirements for each report is met.

5. The team will meet on Mondays and Wednesdays during normal class time on weeks where there is no lecture. On weeks where there is lecture, the team will meet directly after class. We

have also set a backup time of 6:00 pm on Mondays and Wednesdays if we do not accomplish the necessary tasks in the previous times. Meeting minutes will be recorded by one person every week and the tasks of recording the minutes will rotate through the group so no single person has to take the minutes every week. In group discussion, each team member will have a few minutes during the meeting that are just for them to speak. This will allow them to voice any opinions or share any ideas or concerns that they have without fear of being interrupted or not being given a chance. To make sure things get done, report segments that each member is responsible for will be due to the group at a minimum of three days before a report is due. This will allow ample time for editing and proofreading before the report is due. Everyone will be expected to do their share of the work. In order to keep track of what team members accomplish, each member will keep track of the work in a personal logbook that is solely for their own records. If participation comes into question, they can show the logbook of their time spent on the project to disprove any accusations. If someone's portion ends up not taking as long they should offer their help to the rest of the group. Team members are expected to arrive at the meeting on time and prepared with any materials or information necessary for that meeting.

6. The biggest barrier that our team will face as of right now is the fact that we have a very large team. This means that will be very hard to find a time where everyone can meet. Also, a large group means that there are many different personalities in play that can lead to conflict if care is not taken. Major problems in the past have been team members not completing their portion of the work, or waiting until the very last minute to do it. This will be handled by making everything due to the group early with failure to do so being reflected in a very negative peer review. Another concern comes with the fact that we have six people in our group, which means that there is a possibility of having a split decision where half of the group wants to go one direction while the other half wants to make a different choice. In this event, each side will have time to argue for their respective choice in order to convince the other side. If this does not work, the decision will be tabled until the next day to allow for extended consideration without pressure from the rest of the group. If a decision is still not reached, it will be decided by coin toss. The next set of problems comes from someone being unable to complete their portion of the work on time due to either emergencies or a underestimating how much time something will take to complete. This will be mitigated by having portions of a report due a few days ahead of time. If this occurs at a hard deadline, it is the team member's responsibility to inform the rest of the group immediately to request assistance.