



University of Ottawa
Faculty of Engineering
Department of Engineering

GNG2101

Introduction to Product Development & Management For Engineers

Prof. Mana Azarm
TA Jack Walsh
PM Kyla
PM Adi

Project Deliverable A
Team Contract, Client Meeting Preparation and Project Management Skeleton

C13 - Talk Box

Student Name	Student Number
Zainab Badawi	300034146
Tia El Masry	300160596
Kian Mozafarian	300138481

January 17, 2021

Table of Contents

TEAM CONTRACT	4
Team Procedures	4
Day, time, and place for regular team meetings:	4
Preferred method of communication	4
Decision-making policy	5
Method for setting and following meeting agendas	5
Method of record keeping	6
Team Expectations	6
Work Quality	7
Team Participation	8
Personal Accountability	9
Consequences for Failing to Follow Procedures and Fulfill Expectations	10
Describe, as a group, how you would handle infractions of any of the obligations of this team contract:	10
Describe what your team will do if the infractions continue:	11
Client Meeting Preparation	13
Client Summary	13
Unknown Information about the Client	13
Tools	14
Interview Guide	14
Interview Schedule/ “Path” (duration and basic activities/question areas):	14
Gantt Chart	15

List of Tables

Table 1: Setting Agenda and Typing Minutes Roles.....	6
Table 2: Team Leader Schules.....	9

TEAM CONTRACT

GNG2101, Section # C01

Group Name: C13 - Talk Box

Team Members:

- 1) Zainab Badawi
- 2) Kian Mozafarian
- 3) Tia El Masry

Team Procedures

1. Day, time, and place for regular **team meetings**:

Each team member will dedicate the following times slots for team meetings:

- Every **Wednesday at 7:00 pm ETA** on team Discord server meeting room
- If required, follow up meeting on **Friday at 11:30am ETA** on team Discord server meeting room

The meetings on Wednesdays are to insure that the weekly action items are properly implemented and there are no major issues that require external help. The meetings on Friday are to follow up on the action items discussed on Wednesday and to insure that all team members are able to submit deliverables by the given due date.

2. Preferred method of **communication** (e.g. e-mail, cell phone, Facebook, Blackboard Discussion Board, face-to-face, in a certain class) in order to discuss the project and to inform each other of team meetings, announcement, updates, reminders, problems:

Team members will use Discord as the main method of group communication. Group communication topics include but are not limited to team meeting reminders, submission reminders, announcements on any group or personal changes, project updates, communication of any problems that arise, updates on how problems are handled, asking the group for help if any team member is struggling with a task.

All electronic folders used will be saved under the appropriate folder named "GNG 2101 - C13 Talk Box" in google drive. Team members can comment and mention other members if they want to bring a specific part of the document to their attention.

Wrike will be used as the main method to organize a detailed list of action items with due dates and the person responsible for them. Action items due dates that must be **respected** by all team members.

Team Members Email Contact List:

- Zainab Badawi: zbada051@uottawa.ca
- Kian Mozafarian: kmoza086@uottawa.ca
- Tia El Masry: telma101@uottawa.ca

Team Members Phone Numbers:

- Zainab Badawi: +1 (613) 400-0820
- Kian Mozafarian: +1 (647) 907-6737
- Tia El Masry: +1 (514) 754-8459

3. **Decision-making policy** (by consensus? by majority vote?):

Majority votes and decisions based on time constraints are favored by default. If possible make compromises for decisions in order to keep everyone in the group as happy and motivated as possible.

4. Method for setting and following meeting **agendas** (Who will set each agenda? When? How will team members be notified/reminded? Who will be responsible for the team following the agenda during a team meeting? What will be done to keep the team on track during a meeting?):

Team members will take turns to set the agenda and type the minutes for all weekly meetings. The team member assigned to set the agenda will have to complete it by 5:30pm on Wednesday and save it in the google drive under the folder named “Agendas and Minutes”. All team members are expected to look at the agenda before attending the meeting to achieve the most efficiency during the meetings. A detailed table (*Table 1. Setting Agenda and Typing Minutes Roles*) of team members' names assigned to complete weekly agenda and minutes meetings.

As a reminder the team lead is responsible for creating tasks on wrike for the agenda setter and the minutes taker. In addition, at the end of every meeting the team member responsible for setting the agenda and the team member responsible for typing the minutes will have to remind the group members responsible for setting the agenda and typing the minutes for the following week. The Team lead will ensure that the meeting agenda is being followed.

Table 1. Setting Agenda and Typing Minutes Roles

	Agenda	Minutes
Project Deliverable A Jan. 13th - Jan 17th	Zainab	Zainab

Project Deliverable B Jan. 18th - Jan 24th	Kian	Tia
Project Deliverable C Jan. 25th - Jan 31th	Tia	Zainab
Project Deliverable D Feb 1st - Feb 7th	Zainab	Kian
Project Deliverable E Feb 8th - Feb 14th	Kian	Tia
Project Deliverable F March 1st - March 7th	Tia	Zainab
Project Deliverable G March 8th - March 21st	Zainab	Kian
Project Deliverable H March 22st - April 8th	Kain	Tia
Project Deliverable I April 9th - April 11th	Tia	Zainab
Project Deliverable J April 9th - March 12th	Zainab	Kian

5. Method of **record keeping** (Who will be responsible for recording & disseminating minutes? How & when will the minutes be disseminated? Where will all agendas & minutes be kept?):

The team member assigned to type the minutes will be required to type detailed notes of any updates, issues, discussion, and meeting outcomes during the meeting. The minutes will be typed on the same document as the agenda. Before the team member starts to take minutes they should title that section as “Minutes” and type the list of attendees.

Team Expectations

Work Quality

1. Project standards (What is a realistic level of quality for team presentations, collaborative writing, individual research, preparation of drafts, peer reviews, etc.):

To adequately fulfill a realistic level of quality of work for the project, there must be thorough planning and organization with involvement from all members of the group. Members’ contributions shall be planned and discussed with the team well in advance to

come to appropriate conclusions regarding the level and direction of work that is required, as well as any strategies and ideas from the team to best make use of the diversity of the team's minds and skill sets. These conclusions shall be drawn from the rubric that will be thoroughly examined prior to any task to understand what is expected and then be able to deliver work that is thorough, complete, and professional according to the guidelines provided. In conjunction with these actions, the work required shall be done by the Friday before the due date and will be officially submitted on Sunday by 1:00 pm. Each team member should revise submitted work one day before the deadline by the assigned leader to not only be ahead of schedule but to create strong cohesiveness within the team. With these efforts in mind, the group's goal is to achieve a grade of 90% for each submission made towards the project.

2. **Strategies** to fulfill these standards:

- Maintain and strictly follow a well-organized schedule. Be present at all team meetings, clarify expectations and present completed work.
- Determine everyone's strengths and weaknesses, and take advantage of each member's engineering specialty to properly assign roles/tasks to maximize team efficiency.
- Uphold the importance of teamwork. Maintain good communication with one another and update the group of current progress of tasks.
- Acquire the immediate help of team members when one is stuck on a problem or is in need of assistance. Tasks should not be left unfinished until the last minute.
- Ensure the group is following the Iterative Engineering Design Process.
- Utilize resources, or contact professor, TA or project manager for assistance and guidance when unsure of proper steps to take.
- Use feedback from peers, professor, TA and project manager to improve on performance as an individual and as a group.
- Use feedback obtained from deliverables and discuss how to improve or change parts of the project to produce the best final product.

Team Participation

1. Strategies to ensure cooperation and equal distribution of tasks:

- Making a calendar for tasks that need to be completed and assigning work to members depending on their work load for that specific week.
- Regularly have meetings to update everyone's situation and see how their workload is to define and assign tasks accordingly.

2. Strategies for encouraging/including ideas from all team members (team maintenance):

- All team members will ensure that they provide a comfortable and non-discouraging environment
- During all meeting all members will have the opportunity to give ideas and contribute
- The team leader will remind team members that are not contributing
- Celebrate after the project is complete which is hosted by Zainab
- Use deadlines as motivation to complete all our work and ensure all assignments are completed by these specific dates
- Possibility of becoming a PM or a TA for this course based on the experience of completing the project
- Achieving good grades in the course
- Creating a beneficial and substantial product for our client that satisfies their needs

3. Strategies for keeping on task (task maintenance):

- Keep track of which tasks need to be completed and which tasks have been accomplished
- Keep track of when each task is due constantly consulting Wike
- Split up the workload in order to be able to complete tasks in a timely fashion

4. Preferences for leadership (informal, formal, individual, shared):

The team leader is an important role for which these requirements must be met to ensure the project's success. The team leader will distribute tasks between members and also ensure that all team members are on track with the project. They must clearly remind members of deadlines (announcements on discord) and make sure that these dates are met. They must keep all project management files up to date (wrike, google drive, etc.) and submit the project deliverables. The team leader is also responsible for emailing the professor regarding any group issues that might occur between members or if any members break the team contract.

The team has agreed to take turns being team leader for the first three weeks. The dates of the duration of each team leader is listed in (*Table 2. Team Leaders Schedule*). During the meeting on Friday, February 5th, the team members will vote for one member to be the team leader for the rest of the semester.

Table 2. Team Leader Schedules

Duration	Team Lead
January 15th to January 24th	Zainab
January 25th to January 31st	Kian
February 1st to February 7th	Tia
February 8th to April 12th	TBD on February 5th

Personal Accountability

1. Expected individual attendance, punctuality, and participation at all team meetings:
 - Complete documents and workload in a timely manner such that there is room to have at least one meeting before deadline
 - Must reply and communicate to concerns, questions and/or comments within 24 hours
 - In case of an emergency all team members phone numbers are shared and they allowed to call
 - Attendance will be taken for every meeting, if two or more members are not able to attend the meeting due to circumstances discussed 24h prior to the meeting the meeting shall be rescheduled.
 - All team members are expected to attend all meetings, if they are more than 10 mins late they are considered absent for the meeting and they are responsible for reading the minutes in order to catch up with the team progress.
2. Expected level of responsibility for fulfilling team assignments, timelines, and deadlines:
 - Must complete all tasks and assignments that are assigned to them
 - Must meet all deadlines for all project deliverables and tasks
 - Must review all deliverables before the submission date and time agreed upon.
3. Expected level of communication with other team members:
 - Must keep track of all communication channels such as discord

- Must reply to messages within a maximum of 24 hours
 - Must attend weekly meetings unless given specified reason
 - Must reply to any mentions on project deliverables documents within a maximum of 12 hours.
 - Must communicate any difficulties they face and ask for help with the remaining of the team as soon as possible.
 - Team members must cc the remaining members for any emails to the TA, PMs, Professor concerning project deliverables and prototypes
4. Expected level of commitment to team decisions and tasks:
- Team members must discuss decisions between all members and reach consensus before making decisions
 - Team members must strictly follow action items on write and project plan
 - Team members must ensure that they are well rehearsed for all group presentation
 - Team member must insure that they have the first iteration of their prototype functional

Consequences for Failing to Follow Procedures and Fulfill Expectations

1. Describe, as a group, how you would handle **infractions** of any of the obligations of this team contract:

Team contract infractions will be categorized into two types: minor contract infraction and major contract infraction. Minor infractions are any violation to the contract that can be resolved after a discussion with the team members and before the deadline of the deliverable or prototype. Major infractions are any violation of the team contract that can not be resolved after a discussion with the team members and causes a different member of the team to bear the consequences of finishing the missing work. In addition if the team member fails to communicate the troubles they are facing before the assigned due date to the task, it is considered a major infraction.

In the case of minor infraction with team procedures and expectations discussed above, the matter will be discussed with all team members in the next scheduled meeting. In which the person violating the contract will have to explain the reasons that caused them to violate the contract. A written warning will be given to the team

member and will be saved as a PDF under the contract violations folder. In addition the team leader will remind the team member violating the contract of the sections they violated on the team contract.

2. Describe what your team will do if the infractions continue:

In case a team member violates the contract twice, or in case of a major infraction with the team procedures and expectations discussed above, the three strike rule will be implemented when a team member(s). On the first strike the lab TA and PMs, and all team members will be informed of the issue. On the second the course professor, TA, PMs and all team members will be informed of the issue. On the third strike, the remaining of the rest team members will inform the professor and will strip all assigned responsibilities of the member violating the team contract. All warnings will be saved as a PDF under the contract violation folders. In addition the rest of the team members will grade poorly on the peer evaluation assessment.

- a) *I participated in formulating the standards, roles, and procedures as stated in this contract.*
- b) *I understand that I am obligated to abide by these terms and conditions.*
- c) *I understand that if I do not abide by these terms and conditions, I will suffer the consequences as stated in this contract.*

- 1) _____ Zainab _____ date: January 17th, 2021
- 2) _____ Tia El Masry _____ date: January 17th, 2021
- 3) _____ Kian Mozafarian _____ date: January 17th, 2021

* This template was adapted from
https://cns.utexas.edu/images/CNS/TIDES/teaching-portal/Team_Contract.doc

Client Meeting Preparation

Client Summary

The client is Anthony M. He has expertise in this certain area of accessibility and he will represent the people who would benefit from the Talk Box product. The client is looking for a solution to help people who have difficulty speaking and a lack of dexterity to be able to communicate with smart home hubs such as, Alexa and Google. The client suggested a display be made where the user would be able to see categorically organized words/phrases that accompanied by images. The user would then be able to select an option by using a physical switch. The final product must also be wheelchair-mountable and powered by wheelchair power. The client desires to accommodate a range of disabilities and advises the complete system to be as modular as possible to allow the addition of input systems and user interfaces in the future.

Client Information: (based on project description)

- Anthony M.
- He has expertise in this certain area of accessibility.
- He will represent the people who would benefit from this product, Talk Box.

User Information: (based on project description)

User(s)...

- Has difficulty speaking
- Has a lack of dexterity
- Uses a wheelchair
- Needs the help of caregivers

Unknown Information about the Client

- Clients age
- What is the clients daily activities
- How often does the client uses home automation systems
- Is there anyone other than that will use the home automation system
- If so, what are their needs
- When was the last time the client used home automation system
- What type of physical switches is the client most comfortable with
 - Toggle Switch
 - Limit Switch
 - Float Switches
 - Flow Switches
 - Pressure Switches
 - Temperature Switches
 - Joystick Switch
 - Rotary Switches
- What type of wheelchair goes the client use
- Does the client or their caregivers have access to a smartphone or an desktop that can be used to modify our solution

Tools

The group must work as a team and each member will be selected to a designated role during the interview.

The selected interviewer plays an important role in directing the interview and he/she should follow the interview guide in order to have a proper path. The goal is to empathize with the interviewee and to have them describe their experience with the problem. In order to do so, the interviewer should be polite and make consistent eye contact to be respectful. It is desired that the interviewee feels comfortable so one must be patient and gladly repeat questions if needed. Questions to be asked should be open-ended and it is key that the interviewer should always be listening to the interviewee's answer/ stories to ask follow up questions to help us better understand their perspective. The interviewer should be aware of the interviewee's emotions and body language, and if a sensitive question is to be asked, ask them if they are comfortable answering it first. Overall, the interview should flow naturally and the interviewer should have the ability to guide the conversation properly.

The following is a list of things the group members will follow during the interview:

- Follow the interview guide to have a proper direction for the interview.
- Be polite and professional.
- Make eye consistent eye contact, look at the camera.
- Be patient and gladly repeat questions if needed.
- Make sure to listen to their answers/ stories and ask follow up questions.
- If a sensitive question is to be asked, ask them if they are comfortable answering it first.
- Be aware of their emotions and body language.
- One member must write down/ type what is being said to have notes to refer back to during the design process
- One member must observe the interviewee's actions, behaviours and personal characteristics to have more information about the user that will help during the design process.

Interview Guide

Interview Schedule/ "Path" (duration and basic activities/question areas):

Introduction:

- Introduction of each member and indicate who is the interviewer
- State purpose of interview to client
- Ask interviewee if they are willing to answer some questions
- Ask if we can record the interview
- Guess and record their age
- Ask if the user is a man or woman
- Record any other information about the person you are interviewing

Specific Questions (order can be adjusted to maintain 'natural' conversation flow):

Needs

1. Tell us how the idea of needing a “talk box” became something of interest to you/user’s
2. What does the user demographic look like?
3. What are the user's daily activities?
4. When was the last time the user used a home automation system?
5. What are some routine tasks/needs that are requested by users via voice command technology?
6. What other medical aids does the user depends on a daily basis?

Product Design

7. What was it that you/potential users noticed was difficult navigating speech commands?
8. What are the users past experiences with learning and using modern technology for example: a smartphone?
9. In terms of usability, what kind of expectations do the users have of “talk box”| detailed and complex grammar structure, or simple on-the-go commands?
10. What are some expectations regarding the modularity of “talk box”?
11. Are there any practical designs that the user will find comfort in using?
12. Is the user left or right handed?
13. What is one’s range of dexterity?
14. What are some current ways the users communicate with others or smart-home devices?

Thank the user for their time and say goodbye with a smile!

Gantt Chart

The Team Gantt Chart is attached as an excel folder.

The Wrike board has been completed in which a team member was clearly identified for each task and the date to which each task must be completed.