

Date: March 25th, 2021

From: Group One and all team members

To: Guy Hoffman, Alap Kshirsagar, Christopher Draikiwicz, Vicky Hsu, Kevin Liu

Re: Team Charter

Team Member Name	Team Number	Preferred Email
Emily Harmon	One	eeh86@cornell.edu
Mathias Kohler	One	mk2227@cornell.edu
Gabriella Passarelli	One	gmp66@cornell.edu
Kean Chastain-Howley	One	kc658@cornell.edu
Camille Slattery	One	ces363@cornell.edu
Sebastian Torres	One	st639@cornell.edu

Team Logistics and Coordination

The team shall correspond via GroupMe. Updates will be reviewed by each team member within six hours.

External resources will be stored within the Google Drive folder specified for this exact task. It is called "External Resources" in our team folder titled "2250_S21_TH_1." We will be using an automated citation formatting service (citationmachine.net). We will all continuously update a shared document containing all citations for the project which is titled "Water Pump References" and is located in the External Resources folder.

The team will meet up over Zoom once a week, with a plan to meet from 6:00 PM EST- 8:00 PM EST on Tuesday of every week. If other commitments get in the way of any individual attendance to these meetings, the team will communicate and determine how to reschedule and/or keep everyone caught up.

Teamwork and Collaboration

A. Our team's specialized skills are:

- a. Kean Chastain-Howley has extensive experience writing and editing papers, and can translate that into editing and double-checking work that has been done on any written-up reports. He can also use Microsoft Office and sketch.
- b. Gabriella Passarelli has taken 2D drawing and 3D sculpture classes in high school, has experience using Inventor and Onshape, has leadership skills and is proficient at delegating tasks.
- c. Sebastian Torres has some experience with Fusion 360, Inventor, Vault. He is also proficient with Microsoft Office and has had experience working with large teams both academically and outside of school. He is also familiar with MATLAB and has some sketching skills.

- d. Mathias Kohler has taken an AutoCAD/SketchUp class. He has worked with MATLAB and is currently learning Java. He has some Fusion 360 experience from the projects done in MAE 2250 so far. He has experience working in teams and can help coordinate to meet deadlines.
- e. Emily Harmon has some Fusion 360 experience beyond the projects from MAE 2250, from personal projects and ENGRI 1170. She is also familiar with Inventor and Vault and has taken an online ANSYS course. She has taken art classes in high school and has some digital drawing experience using Autodesk SketchBook. She is comfortable in leadership roles and is good at staying organized. She is also proficient in programming with MATLAB and has some experience with Python.
- f. Camille Slattery is comfortable facilitating communication in group environments and managing time on large-scale projects. She has experience with Fusion 360, basic sketching and the machine shop from previous MAE 2250 projects. She is proficient in Microsoft Suite and is familiar with Git and MATLAB.

B. Schedule coordinator: Mathias Kohler

- Tracks design progress
- Keeps track of manufacturing deadlines
- Checks work before turning in
- Reminds team of team meetings
- Resolves any conflicts
- Checks over CADs/sketches
- Grade Impact Consequence documentation and emailing Prof. Hoffman if a problem arises

C. The co-Design coordinators are:

Mathias Kohler has the following responsibilities:

- Checks that the parts fit on CAD
- Work alongside Kean Chastain-Howley to make sure that master assembly functions and reviewing shop drawings

Kean Chastain-Howley has the following responsibilities:

- Checks if the parts fit in real life
- Work alongside Mathias Kohler to make sure that a master assembly functions
- Checks and balances Mathias Kohler

D. Design/Manufacturing Team Members: Emily Harmon, Gabriella Passarelli, Sebastian Torres, Camille Slattery

Each person will design, manufacture and report on one part - or more if deemed necessary for our design's construction. The design process will consist of researching, sketching and creating a CAD model of the part that will fit with the other CAD parts made by other team members. The manufacturing process will involve creating a shop drawing, machining or putting together parts in some other way, and delivering the final product to Kean Chastain-Howley, the in-person design integrator. If Kean Chastain-Howley finds that parts do not fit or if there is an issue with a part, it will need to

be retooled and revisited. The whole team will contribute to the written report, with each member focusing on the portion of the pump that they designed and manufactured.

- E. If an individual team member misses an internal deadline they will be driven to Cayuga Lake by Emily Harmon and forced to jump into the cold water. If Mathias Kohler misses an internal deadline as the team leader, everyone except Mathias Kohler must jump. If Mathias Kohler misses an internal deadline he must unmute himself during lecture and sing a karaoke song (chosen by the team).
- F. Find our schedule both pasted and at the link below:

Date	Action	Lab Dates:
March 29	Submit Team Charter	
March 30	Meeting to finalize design and divide up work	April 1
April 1 - April 15	Finish CADs and sketches, Go into the shop to machine our parts. Order any parts from McMaster.	
April 6	Meeting	
		April 8
April 13	Meeting	
		April 15
April 16 - April 23	Assemble parts and test functionality (if parts aren't to specifications, we will remanufacture during this window)	
April 20	Meeting	
		April 22
April 23 - 28	Finalizing the report	
April 29	Submit the report	April 29

[Water Pump Schedule - MAE 2250](#)

- G. As a team, we conducted a GroupMe poll regarding what grade each of us aspired to attain, all agreeing on a desired grade.