
VCU College of Engineering

# CS 25-301

# Community Fridges Usage Data Acquisition

## **Team Contract**

Prepared for

Taylor Scott/Dr. Daniel Cranston

RVA Community Fridges

By

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## Step 1: Get to Know One Another. Gather Basic Information.

**Task:** This initial time together is important to form a strong team dynamic and get to know each other more as people outside of class time. Consider ways to develop positive working relationships with others, while remaining open and personal. Learn each other's strengths and discuss good/bad team experiences. This is also a good opportunity to start to better understand each other's communication and working styles.

| ***Team Member Name*** | ***Strengths each member bring to the group*** | ***Other Info*** | ***Contact Info*** |
|---|---|---|---|
| Ethan Leyden | Communication, leadership experience, programming. | Experience working with large datasets and building NLP models, experience maintaining websites | leydene@vcu.edu<br>704-500-5351<br>etleyden@gmail.com |
| Jermane Jackson | Programming, problem solving | Experience with full stack web development and deployment, most used/favorite language is Python | jacksonja13@vcu.edu |
| Damian Ashjian | Communication, programming, problem-solving | Experience building interfaces for web apps, strong Java and Python experience | ashjianda@vcu.edu<br>804-514-2509<br>ashjianda@gmail.com |
| Khuong Nguyen | Communication, programming | Experience working with SQL and Python for webscraping, intermediate experience with Java and Python | nguyenk20@vcu.edu |

| ***Other Stakeholders*** | ***Notes*** | ***Contact Info*** |
|---|---|---|
| *Dr. Daniel Cranston* | | *dcranston@vcu.edu* |
| *Taylor Scott* | | rvafridgeoutreach@gmail.com or vacommunityfridges@gmail.com |

## Step 2: Team Culture. Clarify the Group's Purpose and Culture Goals.

**Task:** Discuss how each team member wants to be treated to encourage them to make valuable contributions to the group and how each team member would like to feel recognized for their efforts. Discuss how the team will foster an environment where each team member feels they are accountable for their actions and the way they contribute to the project. These are your Culture Goals (left column). How do the students demonstrate these culture goals? These are your Actions (middle column). Finally, how do students deviate from the team's culture goals? What are ways that other team members can notice when that culture goal is no longer being honored in team dynamics? These are your Warning Signs (right column).

**Resources:** More information and an example Team Culture can be found in the Biodesign Student Guide "Intentional Teamwork" page (webpage | PDF)

| ***Culture Goals*** | ***Actions*** | ***Warning Signs*** |
|---|---|---|
| Keep expectations clear | - Maintain detailed to-do list each week<br><br>- Track what you've worked on/completed throughout the week | - Vague outline of plans for the week, leaving room for poor performance<br><br>- No documentation of achievements |
| Being open-minded | - Take into consideration teammates ideas and feelings<br><br>- Ask questions when you do not understand concepts | - Teammates withdraw from conversations<br>- Teammates use words like "bad" or "stupid" |
| Follow through on commitment | - Meet deadlines and fulfill goals/requirements<br><br>- Communicate with the team when you will be unable to fulfill a commitment that you made | - Student shows up for weekly meeting with no considerable work done<br><br>- Student has been stuck on the same goal or deliverable for a long time without any follow up or communication |

## Step 3: Time Commitments, Meeting Structure, and Communication

**Task:** Discuss the anticipated time commitments for the group project. Consider the following questions (don't answer these questions in the box below):

- What are reasonable time commitments for everyone to invest in this project?
- What other activities and commitments do group members have in their lives?
- How will we communicate with each other?
- When will we meet as a team? Where will we meet? How Often?
- Who will run the meetings? Will there be an assigned team leader or scribe? Does that position rotate or will same person take on that role for the duration of the project?

**Required:** How often you will meet with your faculty advisor advisor, where you will meet, and how the meetings will be conducted. Who arranges these meetings?
See examples below.

| ***Meeting Participants*** | ***Frequency<br>Dates and Times / Locations*** | ***Meeting Goals<br>Responsible Party*** |
|---|---|---|
| *Students Only* | *As needed in Discord* | *Give updates on work progress, especially if there are roadblocks to completing deliverables.* |
| *Students Only* | *Every Wednesday from 11 am-12:00 pm, location TBD each week.* | *Actively work on the project, and discuss what the team should be working on individually.* |
| *Students + Faculty advisor* | *Every Wednesday from 9:50 am-10:50 am in East Hall of Engineering Room E4310* | *Update faculty advisor and get answers to our questions. Ethan will recap each meeting in* |
| *Project Sponsor* | *As needed during Wednesday meetings, or periodically over email* | *Significant updates on project progress, or for feedback on potential ideas* |

## Step 4: Determine Individual Roles and Responsibilities

**Task:** As part of the Capstone Team experience, each member will take on a leadership role, ***in addition to*** contributing to the overall weekly action items for the project. Some common leadership roles for Capstone projects are listed below. Other roles may be assigned with approval of your faculty advisor as deemed fit for the project. For the entirety of the project, you should communicate progress to your advisor specifically with regard to your role.

- **Before meeting with your team**, take some time to ask yourself: what is my "natural" role in this group (strengths)? How can I use this experience to help me grow and develop more?
- **As a group,** discuss the various tasks needed for the project and role preferences. Then assign roles in the table on the next page. Try to create a team dynamic that is fair and equitable, while promoting the strengths of each member.

**Common Leadership Roles for Capstone**

1. **Project Manager:** Manages all tasks; develops overall schedule for project; writes agendas and runs meetings; reviews and monitors individual action items; creates an environment where team members are respected, take risks and feel safe expressing their ideas.
   **Required:** On Edusourced, under the Team tab, make sure that this student is assigned the Project Manager role. This is required so that Capstone program staff can easily identify a single contact person, especially for items like Purchasing and Receiving project supplies.
2. **Logistics Manager:** coordinates all internal and external interactions; lead in establishing contact within and outside of organization, following up on communication of commitments, obtaining information for the team; documents meeting minutes; manages facility and resource usage.
3. **Financial Manager:** researches/benchmarks technical purchases and acquisitions; conducts pricing analysis and budget justifications on proposed purchases; carries out team purchase requests; monitors team budget.
4. **Systems Engineer:** analyzes Client initial design specification and leads establishment of product specifications; monitors, coordinates and manages integration of sub-systems in the prototype; develops and recommends system architecture and manages product interfaces.
5. **Test Engineer:** oversees experimental design, test plan, procedures and data analysis; acquires data acquisition equipment and any necessary software; establishes test protocols and schedules; oversees statistical analysis of results; leads presentation of experimental finding and resulting recommendations.
6. **Manufacturing Engineer:** coordinates all fabrication required to meet final prototype requirements; oversees that all engineering drawings meet the requirements of machine shop or vendor; reviews designs to ensure design for manufacturing; determines realistic timing for fabrication and quality; develops schedule for all manufacturing.

| *Team Member* | *Role(s)* | *Responsibilities* |
|---|---|---|
| Ethan Leyden | Project Manager<br>Hardware Engineer | ✔ Develops overall schedule for the project<br>✔ Writes agendas and runs meetings<br>✔ Reviews and monitors action items<br>✔ Create an environment where team members are respected and feel safe expressing ideas<br>✔ Set up Pi and sensor hardware configuration |
| Jermane Jackson | Financial Manager<br>Bot developer | ✔ Set up Pi hardware configuration<br>✔ Develop discord bot and Lambda code |
| Damian Ashjian | Logistics Manager<br>Front-end Engineer | ✔ Sends emails to sponsor/advisor; communicates responses to team, sends orders forms and manages budget<br>✔ Planning and design for any front-end applications<br>✔ Set up, maintain, and lead AWS services |
| Khuong Nguyen | Test Engineer | ✔ Develop AWS Timestream database<br>✔ Write API code |

## Step 5: Agree to the above team contract

*Team Member: Ethan Leyden* *Signature: Ethan Leyden*

*Team Member: Jermane Jackson* *Signature: Jermane A Jackson*

*Team Member: Damian Ashjian* *Signature: Damian Ashjian*

*Team Member: Khuong Nguyen* *Signature: Khuong Nguyen*