



VCU College of Engineering

CS 25-347 ECHO: Enhanced Collaboration for Human-Robot Operations

Team Contract

Prepared for
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By

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Contents

Step 1: Get to Know Another	2
Step 2: Team Culture. Clarify the Group's Purpose and Culture Goals.	3
Step 3: Time Commitments, Meeting Structure, and Communication	4
Step 4: Determine Individual Roles and Responsibilities	5
Step 5: Agree to the above team contract	6

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.

<i>Team Member Name</i>	<i>Strengths each member bring to the group</i>	<i>Other Info</i>	<i>Contact Info</i>
Ian Richards	Organizing notes, planning ahead, coding experience	<i>Access to advanced networking resources</i>	richardsig@vcu.edu
Gianni Bautista	Industry experience, Cloud experience, React, Spring Boot, Full Stack Dev	<i>Access to someone with AR technology experience</i>	bautistag@vcu.edu
Ekta Shethna	Industry experience in Full Stack Development, Angular and Springboot	<i>Also majoring in Bioinformatics</i>	shethnaec@vcu.edu
Samuel Sarzaba	Industry experience in Full Stack Development, Angular and Springboot	N/A	sarzabase@vcu.edu

<i>Other Stakeholders</i>	<i>Contact Info</i>
Tamer Nadeem	tnadeem@vcu.edu
Shawn Brixey	brixey@vcu.edu

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](#))

<i>Culture Goals</i>	<i>Actions</i>	<i>Warning Signs</i>
Meeting once a week without fail	<ul style="list-style-type: none">- Set up meetings in shared calendar- Send reminder email in day before meeting	<ul style="list-style-type: none">- Student misses first meeting unexcused, warning is granted- Student misses meetings afterwards – issue is brought up with faculty advisor
Informing the group of any delays in completing assignments	<ul style="list-style-type: none">- Stay up to date with each other's project responsibilities- Set reasonable deadlines and note when an extension is needed	<ul style="list-style-type: none">- Student shows up for weekly meeting with no considerable work done
Weekly sprints	<ul style="list-style-type: none">- Set up Google Meet every week- Send reminder in discord before each meeting	<ul style="list-style-type: none">- Student fails to show decent progress without reasoning

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 the same person take on that role for the duration of the project?

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

See examples below.

<i>Meeting Participants</i>	<i>Frequency Dates and Times / Locations</i>	<i>Meeting Goals Responsible Party</i>
Students Only	As Needed, On Discord Voice Channel, Required-Every Thursday 6-6:50,	Update group on day-to-day challenges and accomplishments (Gianni will record these for the weekly progress reports and meetings with advisor)
Students + Faculty Advisor/ Sponsor	Will meet every Friday in zoom/ In person. In person will be every other week	Update faculty advisor/sponsor and get answers to our questions
Students (Working Sessions)	As Needed,	Most work will be done independently and will be assigned using Trello. If individual needs help then they can ask for help on the discord and will have a work session with someone who can help

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.

Communication Leaders

Suggested: Assign a team member to be the primary contact for the client/sponsor. This person will schedule meetings, send updates, and ensure deliverables are met.

Suggested: Assign a team member to be the primary contact for faculty advisor. This person will schedule meetings, send updates, and ensure deliverables are met.

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.

<i>Team Member</i>	<i>Role(s)</i>	<i>Responsibilities</i>
Ian R	Finance	<ul style="list-style-type: none"> ● Get a detailed list of resources needed ● Note prices and find less expensive items that <u>do not</u> impede on quality ● In charge of ordering items on time ● In charge of delivering items to project meeting location
Gianni	Project Manager	<ul style="list-style-type: none"> ● Makes sure that everyone is one track with the to- do list for the meeting ● Ensures that everyone is aligned with project goals ● Helps plan out the scope and objectives of the project
Ekta	Manufacturing Engineer	<ul style="list-style-type: none"> ● Coordinates all fabrication activities to ensure they meet the final prototype requirements. ● Ensures that all engineering drawings comply with the specifications of the machine shop or vendor, and reviews designs to guarantee manufacturability. ● Establishes realistic timelines for fabrication and quality, and develops a comprehensive manufacturing schedule.
Samuel	Systems Engineer	<ul style="list-style-type: none"> ● Lead product specification based on client design. ● Monitor integration of subsystems in the prototype. ● Develops and recommends system architecture and manages product interfaces.

Step 5: Agree to the above team contract

Team Member:

Signature: Ian Richards

Team Member:

Signature: Ekta Shethna

Team Member:

Signature: Gianni Bautista

Team Member:

Signature: Samuel Sarzaba