



VCU

College of Engineering

Project #25-321 and Virtual Reality Space Game

Team Contract

Prepared for
Cassie Bowman/NASA Psyche Mission

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 better understanding each other's communication and working styles.

<i>Team Member Name</i>	<i>Strengths each member brings to the group</i>	<i>Other Info</i>	<i>Contact Info</i>
Akshara Rajesh	Communication, fast learner, and team worker	I enjoy spending time outside, watching TV, and reading new books. I have experience in Java, Python, C++, and SQL.	rajesha3@vcu.edu 703-338-4755
Ava Shilling	Problem-solving, good communication, on time	I like playing games and VR and I chose this project because it sounds cool. Worked with Java and C	Shillingar@vcu.edu 540-255-6609
Quinton Jones	Ambitious, leadership qualities, perseverance	I like watching TV shows and anime, I love sports, and I enjoy playing video games, and bowling. Experienced with Java, Python, and SQL with a little experience with front-end development using React.	jonesql@vcu.edu 804-221-2401
Peter Nguyen	Hard worker, determined	I like games, fishing, and cooking. I have experience in Java, C++, python,	nguyenph11@vcu.edu 904-972-4126

<i>Other Stakeholders</i>	<i>Notes</i>	<i>Contact Info</i>
Rodrigo Spinola - faculty advisor	<i>Professor at VCU - available to talk/meet Mondays-Wednesday-Friday in the morning</i>	spinolaro@vcu.edu
Cassie Bowman - Sponsor	First meeting next Monday	cbowman5@asu.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 they 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 cultural goals? These are your Actions (middle column). Finally, how do students deviate from the team's cultural 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 of Team Culture can be found on the Biodesign Student Guide "Intentional Teamwork" page ([webpage](#) | [PDF](#))

<i>Culture Goals</i>	<i>Actions</i>	<i>Warning Signs</i>
Finishing goals on time	<ul style="list-style-type: none">- Set up deadlines in a shared calendar- Send a reminder through Discord the day before the due date	<ul style="list-style-type: none">- Student misses deadlines consistently- Student misses deadlines afterward – the issue is brought up with the 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 communicate when an extension is needed	<ul style="list-style-type: none">- Student shows up for weekly meeting with no considerable work done- Student consistently does not finish work or communicate – the issue is brought up with the faculty advisor
Keep an organized schedule and workflow.	<ul style="list-style-type: none">- Set schedules and dates through Google Calendar- Allocated work/ document of everyone's roles	<ul style="list-style-type: none">- Student is disorganized, not fulfilling the correct role- Student is disorganized and does not perform assigned work - the issue is brought up with the faculty advisor

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>
<i>Students Only</i>	<i>Every Thursday at 5:15 pm</i>	<i>Update group on day-to-day challenges and accomplishments</i>
<i>Students Only</i>	<i>If needed, meet on discord</i>	<i>Update team on unexpected challenges/ revisions</i>
<i>Students + Faculty advisor + Project sponsor</i>	<i>Every other Monday (mostly) at 5:30 pm</i>	<i>Update faculty advisor and talk to sponsor about current work and expectations</i>
<i>Students + Faculty advisor</i>	<i>Every Wednesday at 10 am in his office</i>	<i>Update the faculty advisor and get answers to our questions</i>

Step 4: Determine Individual Roles and Responsibilities

Task: As part of the Capstone Team experience, each member will take on a leadership role *and* contribute 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 the 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 the 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 an overall schedule for the 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 Purchasing and Receiving project supplies.
2. **Logistics Manager:** coordinates all internal and external interactions; leads in establishing contact within and outside of the 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 the 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 findings 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>
Akshara Rajesh	Project Manager	<ul style="list-style-type: none"> ✓ Develop a schedule for the team ✓ Review individual action items ✓ Make sure everyone understands what is going on
Peter Nguyen	Financial Manager	<ul style="list-style-type: none"> • Carries out purchase requests from the team • Makes sure the team is staying within budget with purchase request
Quinton Jones	Logistics Manager	<ul style="list-style-type: none"> • Ensures that the team has meeting times documented • Ensures that information will be gathered for the team • Ensure that resourced usage is sufficient
Ava Shilling	Systems, Test, and Manufacturing Engineer	<ul style="list-style-type: none"> - Oversee experimental design and testing - Manage product to meet final prototype requirements

Step 5: Agree to the above team contract

Team Member: Peter Nguyen

Signature: 

Team Member: Akshara Rajesh

Signature: 

Team Member: Quinton Jones

Signature: 

Team Member: Ava Shilling

Signature: 