

Team Redfeather
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1. Team Purpose: State the reasons for this team's formation and the team's purposes. Who are your stakeholders, and what are their expectations of and for the team? Write 2-3 paragraphs for this section – be thorough and complete.

The reason for the formation of this team is to complete the Red Feather capstone project. Red Feather has presented a need for alternative home heating methods than the current coal/wood stoves typically used by the Navajo and Hopi tribes in northern Arizona. Solar furnaces present a long term cheaper and renewable form of heat, but at a high initial cost. The team's purpose is to design a set of plans for building a solar furnace that is more affordable than current market products.

Custom built solar furnaces provide the opportunity for modularity that is tailored to individual needs. This could also allow the team to improve on the effectiveness over market products due to eliminating the cost of shipping and by Red Feather completing manufacturing themselves. This more affordable method would allow Red Feather to install more units across the tribe benefitting more families.

The stakeholders for this project are Red Feather Development Group, the Navajo and Hopi tribes in Northern Arizona, and the individuals who could have a solar furnace installed in their home. Red Feather will be funding and installing the solar furnaces pending success of the capstone team. The tribes and individuals with a solar furnace in their home will depend on the device to be effective, safe, and long lasting.

2. Team Goals: What are the team's project, process, and quality goals? To what level of performance are team members willing to commit, and what course grade are you collectively aiming for? Articulating these goals will make a difference in your team's performance. Write 2-3 paragraphs for this section – be thorough and complete.

The team's goal is to complete the Red Feather capstone project and have the solution implemented by the Red Feather Development Group. The project must be of similar effectiveness to commercial products while being cheaper and laid out in plans so that Red Feather can build the Solar Furnaces safely and effectively. The design team will research different solutions to formulate the most effective solution for the design and then prototype and test the designs.

The team is willing to commit the time required to create quality work that deserves an A on the project and creates a solution that will satisfy the client. The team hopes to provide Red Feather with a quality design that will be able to be affordably implemented in people's homes. It will be

a design that is also environmentally friendly by avoiding non-renewable coal and propane which release greenhouse gases into the environment and increase risk of CO poisoning and explosion.

3. Team Member Personalities/Roles/Responsibilities: State each team member's personality style and what they can bring to the group. While some team responsibilities are shared by all members, collaborative teams work best when members also have unique roles and responsibilities. Consider these assignments carefully. Each of the following roles must be assigned to a team member (for smaller teams, some people will have multiple roles):

Nathan's personality type is ENFP. The hope is that the extroverted nature of his personality will be useful during client meetings and presentations. He also hopes his creativity can help contribute to thoughtful and original ideas. Nathan is assigned as the Documents Manager and Website Developer. This is due to the fact that he is the most technologically skilled, and considers himself very organized.

Leann has an INTP personality type and can bring creativity to the team. She is enthusiastic, great at analyzing, and can come up with unique solutions. Leann is the project manager as she can organize tasks effectively.

Trevor has an ENFP personality type, but scores very close to the center in most categories. He can balance out the team where necessary and adapt his personality to best fit the group. He is the client contact and budget liaison for the project due to his good communication and budgeting skills.

4. Ground Rules: How and when will this team meet? What are the norms and ground rules the team will agree to? How will you conduct discussions and make decisions? How will you handle dissenting views among members? How will you hold each other accountable for living by these rules and for task completion? What kind of participation and level of commitment do you expect from one another? Write 3-4 paragraphs for this section.

When working in a team, it is necessary to lay out some ground rules for all members to follow. These rules are written and agreed upon by the entire team. Understanding these rules is crucial to reducing issues in the future. The primary meeting time decided by the group is Wednesday evenings at 6:00 PM. The core rules the team has agreed too are as follows:

1. Arrive within 15 mins of the agreed meeting time (unless previously discussed).
2. No unnecessary or distracting usage of technology besides for project related material.
3. Communicate as much as possible (primarily through email or text), including but not limited to client contact, teammates, etc.,.
4. Maintain individual deadlines as to not set back the team's overall progress.
5. Dissenting views will be handled through group discussion and possibly by majority vote.

6. Any issues that cannot be resolved by teammates will be reported to Dr. Trevas or Dr. Oman.
7. If team members are consistently breaking ground rules, even after being confronted by other teammates, they will be reported to Dr. Trevas or Dr. Oman.
8. Team members are expected to complete their assigned work in a timely manner. If help is needed, other team members should offer to help complete their work (unless busy with other classes). Team members that consistently do not finish their assigned work will be reported to Dr. Trevas or Dr. Oman.

With only three members, maintaining contact should not be an issue for the team and meeting times that fit everyone's schedule should be easy to find. The team's rules aim to stop an individual team member from wasting the time of the rest of the team by enforcing meeting times and deadlines for work. Reasonable, and equivalent, commitment and quality of work is also expected from all team members. The team will strive to distribute work as evenly as possible, and make up for team members that may be struggling on an assignment.

5. Potential Barriers and Coping Strategies: What barriers to effective teamwork might potentially arise in the course of completing your senior project and other team obligations, and how will you handle them if they materialize? What problems with team dynamics have you experienced in the past, and how will you handle them if they come up again? Write 3-4 paragraphs for this section.

When working in a group it is important to understand that issues will arise and it is necessary to have a coping strategy beforehand. The ground rules, found above, are a good starting place for preventing conflict but are not all encompassing. Creating a plan for issues that either go beyond, or are not covered by, the ground rules can be very useful. Being proactive and creating methods to deal with future barriers can save a team a lot of time and hassle. Team RF's coping strategy is outlined below

One problem that may arise is a team member not finishing work on time. This hurts the entire team and could hinder their progress. The team should discuss with each other why the work was not done on time. Possible reasons could be being busy with other classes, given a larger amount of work than possible to finish, or just being lazy. The team should find out the reason the work was not done on time and plan a solution accordingly. If the person was busy with other classes, they should learn to understand that everyone takes multiple classes and is expected to do the same amount of work regardless of how many classes they are taking. If a person is just being lazy, they will be spoken too and may be reported to the capstone professors.

A problem experienced by a prior team is lack of communication. In a past experience, people in the team would not convey important information such as changing part of the project or even dropping the class. To avoid a lack of communication, the team members will make sure to convey their information efficiently in team meetings and primarily over text message when not in person. The team will also make sure all team members are included in emails when communicating with the client.

Another problem experienced before with a different team is incivility. This included not listening to other team members ideas mainly due to personality differences. To avoid this problem in Team RF, the team members have written in the ground rules that different views will be handled by majority vote. This means that everyone will listen to each other's ideas and decide as a group which idea to implement. Team RF will take measures to avoid problems with team dynamics and will use effective coping strategies if needed.