

What were the outcomes of the prior phase?

1. What did I plan to do?

My plan for the last phase was to gain an introductory knowledge to this project. This includes an understanding of the current state, future state, goals, and constraints of the existing system. I also wanted to gain a better understanding of who the stakeholders are, their motivations and what is their current interest in this project. I also wanted to gain a better knowledge of the challenges faced by last years team to begin planning out how to avoid the same mistakes. Developing a strong foundation with my fellow teammates was a goal of mine as well as developing roles and norms to ensure transparency of tasks that can be maintained throughout the project.

2. What did I actually do?

I believe that I was successful in achieving my goals. Prior to last phase, I did not even know what aquaponics is or that it existed. Now I feel comfortable explaining not only what aquaponics is, but where we currently stand with it and where we would like to go. Through developing CR/ER/HOQ, I have a much better understanding of what this system demands technically, as well as through the development of risk management tools, what are the greatest risks that our project faces and how to mitigate them. Our team has been performing very well so far and everyone seems to understand and embrace their role on this team as well as the norms that we outlined.

3. What did I learn? How were plan and reality different?

I believe that I exceeded my expectations for this phase, but I realize that I need to set even higher expectations next phase for myself to continually improve upon my skills as an engineer and project manager as well as for my team to continually maintain high motivation and on pace with our tight schedule. I was able to reach all of my expectations, but through our first design review, I realize that there are still a few flaws that require some attention in order to find even greater success in following phases. My biggest takeaway from this first phase is that I am not alone on this project, I have a whole team that is encouraging and ready to take on further challenges. While I understand that I have increased responsibility as a project manager, part of this responsibility is knowing who, what, and when to assign tasks to team members.

Team level goal for next phase

In systems design, our team expects that through the completion of various methodologies including functional analysis, morphological analysis, concept generation, and selection, we will be able to successfully define the architecture and interface of our system in order to satisfy the requirements previously defined by our customer in the problem definition phase.

What do I plan on doing to ensure that my team has a successful review at the end of the next phase?

1. Develop full communication plan and stakeholder register to more clearly outline stakes in project as well as best methods of communication. (2 hours, Saturday 9/21)
2. Assign teammate to analyze data collection of sensor on current system. (2 hours, with Thomas, Thursday 9/19)
3. Analyze the current system to better understand relative worth of parts to successfully complete a Cost-Worth Analysis (3 hours, Wednesday 9/25)
4. Setup time with the Webster School District to take a tour of their existing aquaponics system (2 hours, Friday 9/27)
5. Analyze existing uses of aquaponics in order to expand upon our existing use scenarios and realize new insights into our customer requirements (2 hours, Sunday 9/15)
6. Assign teammate to look into designs, materials and dimensions of our first prototype. (4 hours, Kesh, Tuesday 10/01)
7. Assign teammate to look into flow rates for water circulation. (3 hours, Jacky, Tuesday 10/01)
8. Ensure all research and deliverables completed are organized properly in google drive and EDGE. (2 hours, Armand, Thursday 10/03)

What is standing in my way of meeting my next phase goals?

Lack of understanding on flow rates and how components of the system work together needs to be understood prior to developing any concepts and certainly before any prototyping. We could begin with analyzing data from the last team as well as the data currently being collected. The cost-worth analysis will help to highlight what parts are candidates for a cost reduction to maximize value in the system and reduce overall cost. This needs to be done prior to selecting what materials we should use for prototyping. The analysis of the Webster schools system can also give us ideas on what materials might be effective for our system as well as develop better understanding for technical components such as the sensor and flow rates. For this reason, this task should be completed soon so that we can use this knowledge to enhance our progress in systems design

Note to teams: Consider using an abbreviated form of this for your daily/weekly check-ins with your team and/or guide, similar to an Agile standup:

- What have I done since the last class to move the team toward its phase goals?
- What do I plan to do next to move the team toward its phase goals?
- What blockers are preventing me from getting my work done?