

What were the outcomes of the prior phase?

1. What did I plan to do?
 - a. I planned to keep documentation up to date and work with the team on several design activities, including the development of schematics and updated flowcharts. There was a purchase request planned to be sent to me to get some early prototyping/testing done, so I planned to have some results ready for this review.
2. What did I actually do?
 - a. I kept up with documentation and worked on several design areas, including the beat programming board wiring and the 3.5mm interface for the user control buttons. I also tested the slider and seven segment display we purchased on a personal microcontroller so we know its operation and can factor its pin requirements into schematics.
3. What did I learn? How were the plan and reality different?
 - a. I refreshed myself on programming with Arduino and wiring up and using a seven segment display. I also learned more about standard interfaces, such as 3.5mm audio jacks, as we worked to design the interface between the user controller and the microcontroller.
 - b. The plan was generally the same as what actually happened, as the remote working situation reduced the prototyping and testing we were able to do, so simpler design work was pursued.

Team level goal for next phase

With the majority of the design ready, the team will prepare for the build stage. If we are back on campus for the next phase, we will quickly move into large scale prototyping and testing of high-risk components. If remote work continues, we will move on to simulations and limited testing where possible. The design and BOM will continue to be expanded so that we know what is required for the final build.

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

1. Keep up with documentation on Confluence (throughout)
2. Test motor system with Arduino (~5 hrs)
3. Think about internal component placement (~2 hrs)
4. Work with team on PCB circuit layouts (~3 hrs)

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

Time availability - other class work preventing enough time to be allocated to design work

Working from home potential - distractions, loss of focus due to the pandemic situation

Lack of prototyping - due to the situation, prototyping can't be done as effectively, which raises some risks and restricts our ability to move ahead with implementation

Length of time since last phase - need to get up to speed and move quick after break