

Custom Timer 005-2 Project Summary

Team Members: Richard Cerrato, Alex O'Sullivan, Kexin Liu

Original Problem:

The original problem we were tasked to complete was to create a timer. This timer will control a 7-segment display, a speaker, and use a potentiometer and/or switch for inputs. We were told to make our system accurate, safe, intuitive, easy to hear, and have dimmable timer lights. In addition, we were also challenged to make the system pausable/resettable, have a warning feature, and last for a long time.

Solution Progression:

We chose to divide our project into six distinct blocks and tackle those blocks individually. As each block was finished we submitted them for evaluation and revised our main design to accommodate. After completing all of the blocks we combined them together to create the full project. This was also when we designed the PCB and the enclosure for our full project.

Project Timeline:

Week	Activities	Assignments Due (all due Friday at midnight of that week)	Miscellaneous
1	Making this timeline. Brainstorm extra engineering specifications.	Submit timeline	Think of design. Check for resources.
2	Deciding on extra engineering specifications. <i>Progress Report.</i>	Design I	
3	Working on/submitting <i>Block Diagram</i> design. <i>Progress Report.</i>	Design II review	Order circuit components.
4	Working on/submitting <i>Block Diagram 1</i> (Team Block Diagram). <i>Progress Report.</i>	Built I Submit Block I Checkoff Artifacts	
5	Working on <i>Block Diagram 2</i> . <i>Progress Report.</i>	Block I checkoffs (demo/grading)	
6	Working on <i>Block Diagram 2</i> . <i>Progress Report.</i>	Submit Block II	Order PCB boards.
7	Working on/submitting <i>Block Diagram 2</i> (Individual Block Diagram). Working on/submitting Team Reflection. <i>Progress Report.</i>	Block II checkoffs	
8	Doing final work on project. <i>Progress Report.</i>	Integration	
9	Working on/submitting project documentation and finalizing feature implementation <i>Progress Report.</i>		Create an enclosure.
10	Present final project. Submit Project Showcase.	<i>System checkoffs</i>	

Key Lessons Learned:

Communication, Collaboration, Planning/Research and Teamwork.