EE / CprE / SE 491 – sdmay26-12
ABC with Modern Components
Report 9

11/19/2025 – 12/2/2025
Client: Alexander Stoytchev
Faculty Advisor: Alexander Stoytchev

Team Members:

Gavin Bunker — *Technical Manual Lead*
Ryan McFadden — *Client Liaison, Recorder*
Samuel Schroeder — *Team Leader*
Vance Arnold — *Team Facilitator, Purchasing*
Bryan York — *PCB Lead*
Kyle Koch — *VHDL Lead*

Summary

For this reporting period, our team prioritized work on our final class deliverables, our final design document and final panel presentation, over continued project work. We also worked to finish up the design stage of the few modules that were still in progress. The VHDL implementation of the clock generation circuit was completed, a breadboard prototype of the decimal output module was created to finalize the module's design, and the remaining components were soldered onto the add/subtract PCBs. Additionally, our cabinet was organized to make room for all of the parts we are ordering and to make it easier to find specific components.

Past Week Accomplishments

- Vance
  - Organized parts categorically in the project locker for space management.
- Kyle
  - Worked on finishing soldering my PCB, as all the parts came in
- Gavin
  - Finished implementation of the clock circuit in VHDL and all required functionalities, associated testbenches, optimization of used components to minimize ICs, etc
- Samuel
  - Created a breadboard prototype of the decimal output module to verify that our design works with the particular chips that we have
- Ryan
  - Helped organize all of the parts in our locker and soldered components on the PCB Kyle was working on.
- Bryan
  - Helped with breadboard design of the decimal output.
  - Updated PCB schematic based on working design.

Pending Issues

- No pending issues

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Gavin Bunker	Finished implementation of the clock circuit in VHDL	12	69
Ryan McFadden	Organized parts, PCB soldering.	3	51
Samuel Schroeder	Decimal output breadboard prototype	4	67
Vance Arnold	Organized parts.	3	53
Bryan York	Decimal output breadboard and schematic	4	75
Kyle Koch	PCB soldering.	3	49

Plans for the Coming Week

- Complete our design document and final presentation for the semester