

## Sprint 2 Progress Report

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During this spring, we aimed to finish two objectives: Finish our simulation for the backup circuits and combine them, and order parts. We successfully ordered our parts and received them this week, and should have everything we need for now. Although we do not have our back up circuit parts yet, if things go according to plans we will not need them. As for our simulation and testing, we have mostly finished our backup circuits, although we ran into some issues and will end up completing them during spring three.

For our parts, we successfully received the parts we ordered, and plan to assemble them during the next sprint. Here is our ordered parts list:

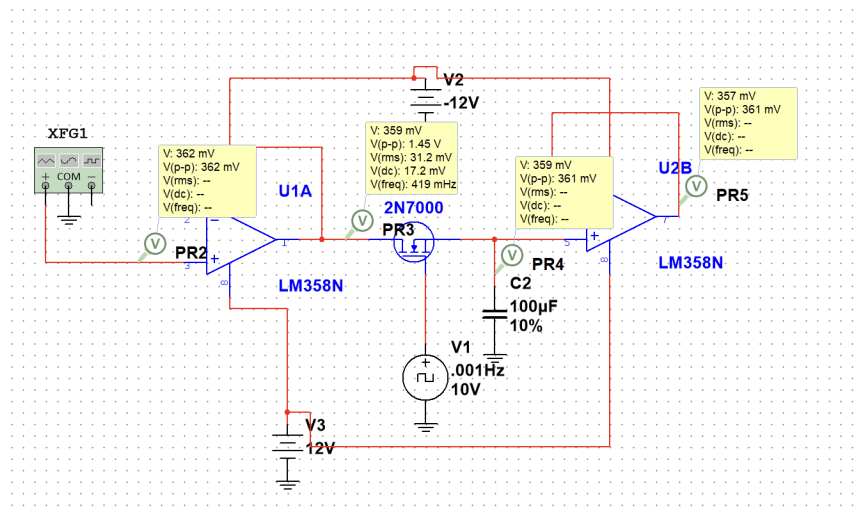
- SAR - MC14559B (Order)
- Chipquik adapter - PA0006C-N (Order)

For other parts, we plan to pick them up from the OSU supply during spring three.

- Analog Comparator - LM293 (OSU supply)
- Sample and Hold - LF398N (OSU supply)
- Raspberry Pi (Personal supply)

Although we had originally planned to assemble the circuit during this spring, delays in the shipping of parts meant that we did not receive our order until the spring was over.

Our second goal this spring was to create back up circuit schematics for the sample and hold circuit, the successive approximation register, and the comparator. We successfully created the sample and hold circuit, although we ran into some issues with the SAR and the comparator. Because of this, we were also unable to create a full, combined schematic of the backup circuits together. All three of these tasks have been pushed to sprint three and should be completed then. Once all of these schematics are created and tested, we will be ready to assemble the circuit using the parts we have now received.



For our next spring, we hope to accomplish the following:

- Finish creating and testing the schematics for the SAR, comparator, and fill design
- Assemble ordered IC chips once testing is finished
- Determine how to create and use control signals from Raspberry Pi