*Members:*

Dan Kearney, Margaret-Ann Seger, Cory Dolphin, Noam Rubin, Brittany Strachota

*Project:*

Breadboard Emulator which will provide an easy-to-use UI for introductory circuit building and analysis. The key feature that distinguishes our project from Simulink/ LabView is the fact that connections are implicit to the breadboard itself, rather than manually created such as in Simulink. Hence we will only be dealing with components (resistors, opAmps, wires etc.). Our goal for the project is to create a lasting usable tool for beginning circuit designers. One important component of this goal is to create an easily expendable framework. We intend to collaborate with Brad Minch and Brian Storey.

*Minimum deliverable:*

We would like to have, at minimum, a drag and drop interface to check if a given circuit is closed or not.

*Maximum deliverable:*

A clean, intuitive user interface which provides users the ability to virtually build and analyze circuits; providing information regarding frequency response of the system, error calculations, and oscilloscope capabilities. An indication of whether we have succeeded in the maximum deliverable would be the ability of this software to aid in the correct completion of all of the labs from ModCon 1.

*First Step:*

We need to learn spice, as we intend to use spice to aid us in the circuit analysis aspect of this project. Next, we need to design our basic objects and class structures, as well as decide how we want objects to interact with each other.

*Biggest Problem:*

We foresee difficulties in meshing our code with spice code that we will need to analyze the circuitry.