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**ELEC 101: Elements of Electrical Engineering**

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ELEC 101: Elements of Electrical Engineering

Overview

ELEC 101 provides an overview of the major areas in Electrical and Computer Engineering. The target audience is freshmen and sophomores who are interested in ECE as a possible major but are undecided.

The course assumes no background in mathematics or programming. Using a series of hands-on exercises, most of them using NXT Robot, the course will introduce the students to the following key concepts.

- Signals - Abstractions of different physical inputs and observing them as a time waveform.
- Signal Processing - Manipulating signals to extract key features and make decisions based on those properties.
- Computing and Programming - What is a computer? How do we program it?
- Sensing and Interfacing - How does one measure and control our physical world?

Instructors

Prof. Ashu Sabharwal

Prof. Lin Zhong

Resources Spring 2011

- Course Philosophy
- Syllabus
- Lecture Notes and Homeworks