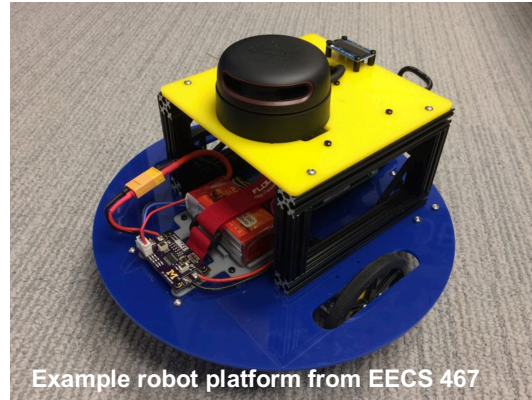
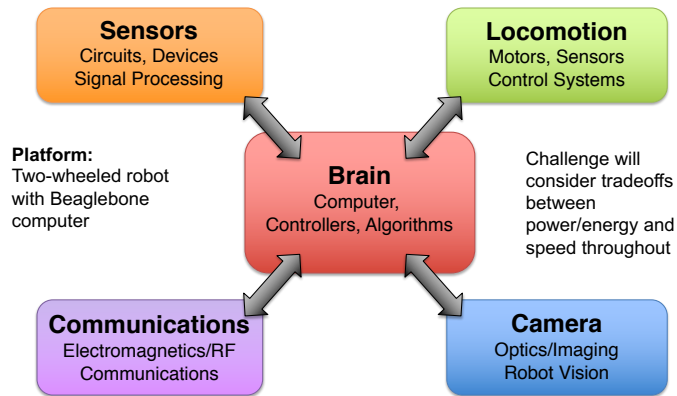


**EECS 298-001**  
**Electrical Engineering Systems Design**  
**Winter 2019**  
**(2 credit hours)**



Most everything we encounter in the modern world relies on electrical systems – ranging from obvious applications such as smartphones, computers, satellites, and the electricity grid to less obvious applications such as transportation, medical devices and instruments, and even the sensor networks that ensure safe buildings and clean drinking water. How do today’s amazing technologies in electrical engineering work together to achieve the complex requirements of a system? In this course, we will examine how concepts in electrical engineering (circuits, computing, control and decision making, sensors, embedded systems, optics, power, signal processing, and wireless communications) come together in electrical systems. The course will be laboratory based, and centered around the build of the subsystems of a 2-wheeled robot, and adapted in a design competition to address a societally-relevant challenge scenario.

**PRE-REQUISITES:** ENGR 100, ENGR 101. Co-requisite: EECS 215.

**COURSE FACULTY:** Jamie Phillips (jphilli@umich.edu) and Leland Pierce (lep@umich.edu)

**CLASS MEETINGS:** Lecture: Tuesdays 1:30-3pm  
 Lab: Thursdays 1-4pm

**GRADING:** Grades for the course will be assigned based on performance on lab reports, the final project, and class/team participation.

<b>Class/Team Participation</b>	<b>20%</b>
<b>Lab Reports (Individual)</b>	<b>40%</b>
<b>Final Project (Team)</b>	<b>40%</b>