

# CS 179J: Project in Embedded Systems

## Spring 2017

### Overview

CS 179 is an intensive capstone course for CS and CE seniors. 179J involves design of a substantial embedded systems project. The course is loosely modeled on a company experience.

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DIS Th 4:10 - 5:00 pm Surge 173

LAB TBD

### Grading *(subject to revision)*

- 20 pts: Version 1 (mid-quarter)
- 55 pts: Version 2 (end-of-quarter)
- 10 pts: Attendance, participation, misc assignments
- 10 pts: Team score
- 5 pts: Engineering log

100 pts total. Standard 90/80/70/60 scale, with +/- grades.

### General project info

- Each student will do an individual project.
- Students self-form 3-5 member teams. Members' projects interact. Each project stands on its own too.
- Each student's project is his/her own code and circuit; other code/circuit only with teacher permission and citation. Team members provide appropriate assistance: Ideas, debug, jointly learn, etc.
- Students provide their own hardware, which must be approved by teacher.
- Projects follow class' theme: Inventions for consumers. Exceptions rare; possible w/ strong rationale.
- Students demo and submit a first and second version. *Each must function.*
- UC dictates 4 hrs/week per unit. Plan 16 hours per week, starting right away.
- Students must keep a detailed engineering log, indicating times worked, tasks, plans, links, etc.

### Schedule

- Version 1 -- May 5 (Grade based on  $5 \times 16 = 80$  hours of senior-level work)
- Version 2 -- June 8 (Grade based on  $10 \times 16 = 160$  hours of senior-level work)
- The sooner you start thinking of cool project ideas along the theme and forming teams, the better.