Introduction to Physical Computing Fall 2017, Feddersen   Tuesdays 9AM – 11:30AM   jfeddersen@gmail.com
Course site: http://itp.nyu.edu/physcomp/   Room 20   917 435 7844
Section site: https://itp.nyu.edu/physcomp/itp/sections/jeff-feddersen/

Goals: We'll learn how to use microcontrollers – the smallest, simplest devices that can execute programmable digital logic – to create things that fit the humans that use them. We'll learn a bit about electricity, basic circuits, programming, sensors, and the ways digital devices communicate. We'll put that knowledge to work in a midterm due week 8, and we'll carefully plan and execute a second, more ambitious final in the latter half of the semester. As we master the technical material we will refine our understanding of what constitutes interactivity.

This schedule is a synopsis for reference *only*. Please see the full syllabus for all details on assignments, readings, etc.

Class #	Date	Topic	Tasks for the *following week*	Blog	Reading
1	Sep 5, 2017	Introductions	Get parts, set up doc site	*What is Interaction?*	Yes
2	Sep 12, 2017	Electricity	Electronics Labs; **Quiz 1**	Lab doc	Yes
3	Sep 19, 2017	Microcontrollers, Digital I/O, Analog Input	Digital I/O + Analog Input labs, **Quiz 2**	Lab doc, *Observation*	Yes
4	Sep 26, 2017	Analog Output	Analog Out Labs + catch up, **Quiz 3**	Lab doc	None
5	Oct 3, 2017	Review & Reading Datasheets	Catch up on labs and documentation	Lab doc	Yes
6	Oct 10, 2017	Asynchronous Serial 1	Serial Labs, **Quiz 4**, start midterm	Lab doc	None
7	Oct 17, 2017	Asynchronous Serial 2	Serial Labs, continue midterm	Lab doc, midterm doc	None
8	Oct 24, 2017	**Project Presentations Midterms Due**	Final project concept	*Final concept*	None
9	Oct 31, 2017	Final project planning	Build 'paper' prototype, make test plan	*Plan, BOM, Timeline*	Yes
10	Nov 7, 2017	Playtesting	Update project plans based on playtesting	*Revise final docs*	None
11	Nov 14, 2017	Power electronics	Work on final	*Revise final docs*	None
12	Nov 21, 2017	Serial 3: I2C and SPI	Get final project ready for user testing	*Progress report*	None
13	Nov 28, 2017	User testing	Prepare final and presentation	*Finalize project docs*	None
14	Dec 5, 2017	**Project Presentations Finals Due**			

Guidelines: Be curious, ask questions, be courteous to other students, do the work, be on time.

Office hours: https://tinyurl.com/jfoffice2017   Note: I'm available to meet in-person after class sessions through the calendar in the link. I am also very happy to arrange office hours by video/phone/whatever at any time we can find that works. Please email me to set up a time to chat.

Grading: 30% In-class lab work and participation
20% Midterm
30% Final project
20% Blog & documentation