MTEC 1101: Emerging Media Foundation
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Project 3 (team-based)
Physical Computing Concept, Design, "Prototype," Presentation

Imagine that the City of New York launched an open call for physically interactive design solutions that address one of today's most pressing needs. Your team's mission is to create a <u>concept design/proposal</u> plus a <u>lo-fi physical/digital prototype</u> and <u>present</u> it, as if you could be awarded the grant funding to create your hi-fi prototype. Your design solution can be an experiential game, game controller, IoT product, wearable, art object, installation, or something akin to one of the examples you read about in Assignment 8, but it must fit the description of physical computing that we reviewed in class:

Sensing and controlling the physical world through hardware and software.
Connecting your digital world, and the capabilities of computing, with your analogue physical reality, through interactive systems.
Your team's proposal must mix hardware and software, physical elements with code, and integrate a human-centered interactive system. <u>Your team's lo-fi prototype</u> (made by one member with materials at home) <u>can be a metaphor</u>, and <u>your canvas demo</u> must <u>show at least two sensors and two actuators "activated" via mouse or keys</u>.

The ⫸ icon below indicates <u>assignments</u> to be done in coordination with your team *between each class*.

W 04/10 (Class 21) — ideation and design solution
Brainstorm/ideate and determine a problem/solution. <u>Sketch</u> ideas on paper. Draft <u>Section 1: Executive Summary</u> of the P-Comp Concept Document Outline. DM the G-doc link + a photo of your sketch via Slack.

⫸ Do the <u>research</u> as described in <u>2.2</u> in the Document Outline

M 04/15 (Class 22) — research & development / low-fi physical prototyping
Draft <u>Section 2: Proposed Physical Computing Concept</u>. Begin work on diagrams and a physical lo-fi prototype.

⫸ Work with your team on the diagrams and prototype, and DM photos via Slack.

W 04/17 (Class 23) — R&D cont'd / circuits, prototypes, testing / presentation prep
Draft and submit <u>Section 3: Recommendations</u> + <u>Section 4: Appendix</u> of the Document. Finalize your diagrams and your prototype, and translate this to a p5.js sketch. Begin collaboratively creating a presentation file. Determine a plan for obtaining and recording feedback, discussing feedback, and integrating what you learned and discussed into your presentation.

⫸ Interview a roommate or family member about the design/prototype and DM the video clip (or audio clip + photos) via Slack (and include in the online presentation file).
⫸ Submit your completed <u>P-Comp Concept Document Outline</u> + link to your <u>presentation file</u>.

W 05/01 (Class 24) — team presentations
Each team will have about 15 minutes to present, with around 5-10 minutes for feedback, discussion, and critiques. As with Project #1, <u>each team member should speak</u> about a section of the presentation, and be prepared to discuss process, roles, etc. during the Q&A.