Student's final project proposal form

99-355 Intro to Arduino

Carnegie Mellon University

Student name: _____ **Project title:** _____

Date: _____ **99-355 section (circle one):** A1 A2 A3 B3

By doing this project, I aim to learn:

_____

_____

_____

Three (or fewer) sentence project description:

_____

_____

_____

Any special materials/parts/methods needed that aren't available in the Phys Comp Lab? ☐ yes ☐ no

If yes, list or explain:

_____

_____

Orders for additional parts that IDeATe is purchasing must be submitted via this form: **`forms.gle/GxHX2Cnx6e1ZPMkW8`**

Student's criteria for success—i.e. what is the endpoint you'd be satisfied reaching?

_____

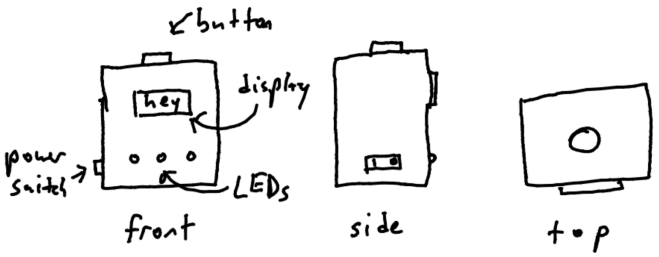
_____

_____

Mechanical/physical project sketch

- Can be very sketchy! Aim to show roughly what the thing will look like when built, without need for great detail
- Include multiple views, such as top, front, and side, or whatever other views are appropriate for your design
- Label any salient features or points of user interaction
- The emphasis here is on considering your fabrication plan, *not* producing a beautiful work of art

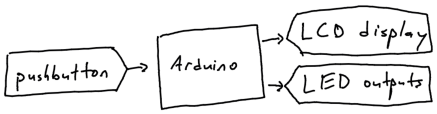
example sketch



Functional block diagram

- Diagram the flow of data through your system
- List inputs on the left, computational steps in the center, and outputs on the right

example functional block diagram



Electrical/electronic schematic sketch

- Draw the electronic circuit you'll build below
- Show electrical connections only, *not* physical appearance
- For parts without standardized symbols, simply write the part name or number in a rectangle with pins as follows:
  - power (if any) goes on top
  - ground (if any) goes on bottom
  - inputs (if any) go along the left
  - outputs (if any) go along the right

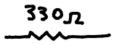
schematic symbols reminders

wire

node

crossing w/o contact

resistor



switch

button

LED

potentiometer

5V power

ground

Arduino
(draw pins as needed)