

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:

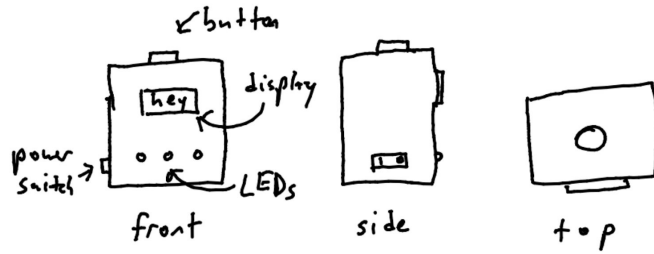
Orders for additional parts that IDeATe is purchasing must be submitted via this form: forms.gle/GxHX2Cnx6e1ZPMkW8

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

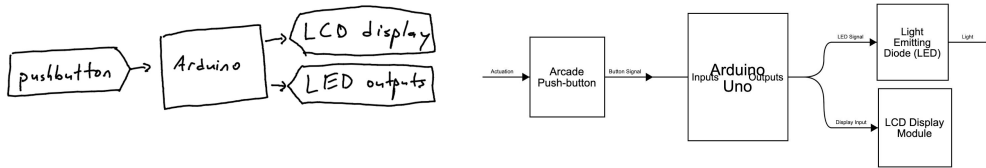
example sketch



Functional block diagram [\(draw.io parts library link\)](#)

- 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 (handwritten and using draw.io)



Electrical/electronic schematic sketch [\(draw.io parts library link\)](#)

- 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

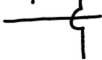
wire



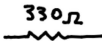
node



crossing w/o contact



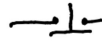
resistor



switch



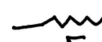
button



LED



potentiometer



5V power



ground



Arduino

(draw pins as needed)

