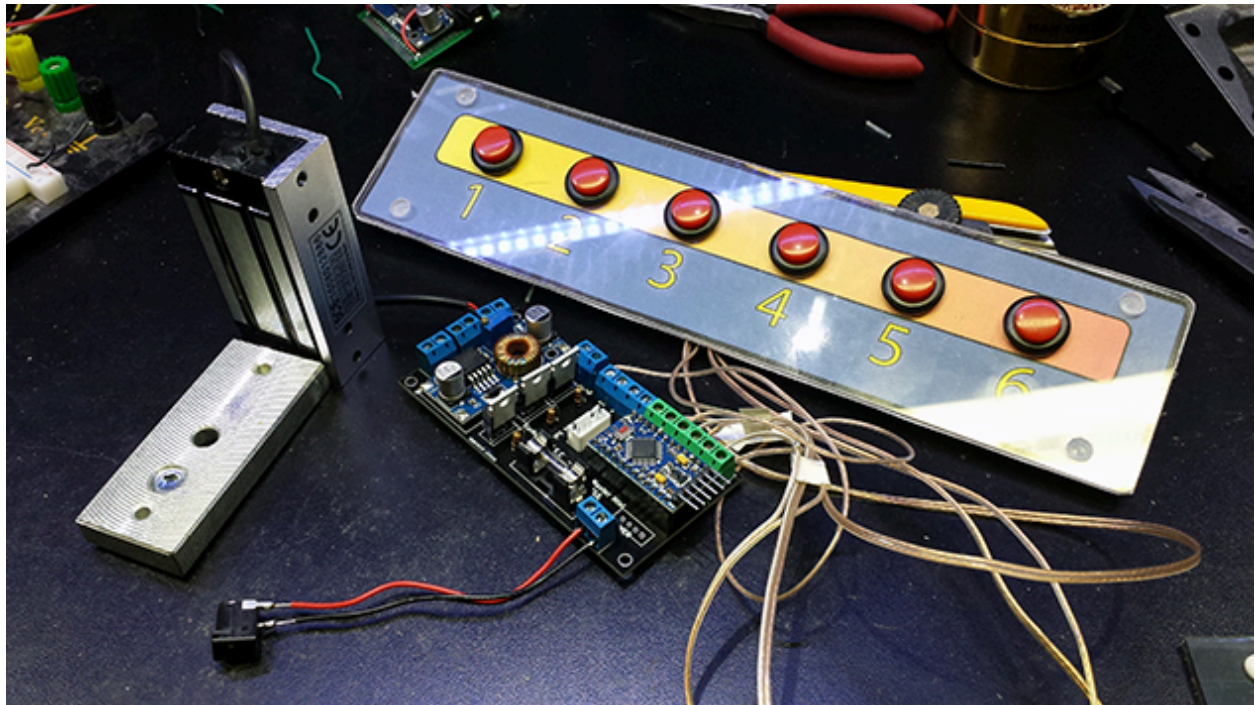


Escape Room

Students will work in groups of 2 to design and program puzzles for the Makerspace's first "escape room." Each challenge will fit together to form a cohesive escape game.



REQUIREMENTS

1. Puzzle

- Must be interactive (buttons, infrared sensors, etc.)
- Puzzle should fit into the class narrative
- Should take ~5 minutes to solve (i.e. not too difficult or easy)
- Should have clues (written or visual) that inform players how to interact with the puzzle

2. Materials spreadsheet

- Itemized with all materials so I know what to buy

3. Code

- Must include at least one example of all of the following:
 - Variables
 - Function that takes an argument
 - Function that returns a value
 - 2 additional functions
 - Loop (for)
 - Conditional statement (if / else)

vii. Array

4. Presentation

- a. Students will present their proposals. Additional details TBA.

EVALUATION

The following criteria are used to evaluate creative assignments:

1. **Meets Requirements:** Does the project follow directions and fulfill all aspects of the assignment? Are materials turned in on time?
2. **Code:** To what extent is your code free of bugs? To what extent is your code written well (i.e., clearly, efficiently, elegantly, and/or logically)? To what extent is your code readable (i.e., commented and indented with variables aptly named)?
3. **Craftsmanship:** To what extent is your prototype presentable, well-designed, and functioning properly?
4. **Creativity:** To what extent is the project unique, inventive, and imaginative?
5. **Complexity:** To what extent does your code convey a deep understanding and mastery of computer science / Arduino concepts?
6. **Effort:** Is there evidence that you invested time and energy in the project?

PLAGIARISM

In the age of the internet, and particularly in the realm of computer programming, it is very easy to copy someone else's work.

- Code
Sharing code and building off of previous work is permissible, and even encouraged, so long as:
 - The code is open source.
 - You **give proper credit** by including a comment in your code with a URL or clear description of the source code. Credit is also required for "adapted" code.
 - The copied/adapted code **cannot make up a substantial portion** of the project.
- Instructables
If you find a project online that you'd like to replicate, think about how you can make it your own. Using online projects for inspiration is permissible; copying projects directly is not. Talk to Ms. deBB if you have any questions.

BRAINSTORM

Theme

- Who are we?
- Where are we?
- How did we get here?
- Why are we locked in a room?

Puzzles

- Types of puzzles that involve switches
- Types of puzzles that involve
- How can we use music/ sound?
- Puzzles that maps
- Puzzles that involve secret codes
- Slider
- Light sensor
- Ultrasonic sensor (distance)
- Accelerometer
- Piezos (force sensor)