LAB PROJECT (LP): Kids' Party Games

ASSIGNMENT

The first week of the course consists of a series of workshops that introduce different prototyping skills. In your assigned teams, apply and practice these skills to develop a simplified kids' party game. Pick **an element** of the game that you can prototype using a combination of foamcore, rapid prototyped parts (using the laser cutter and / or 3D printer), and Arduino and basic electronics.

Apple Pie: Crocodile Dentist   **Dulce de Leche:** Let's Go Fishin'
Banana Split: Hungry Hungry Hippos   **Éclair:** Operation
Crème Brule: Elefun

Note: You are not expected to recreate the entire game! Simplify the game by selecting a single element that you can prototype.

DELIVERABLES

Due Tuesday, January 13th
Create a project page for the assignment on BiP, adding all members of your team to the project. Upload a project plan as your first step, outlining the aspect of the game you plan to prototype and a sketch of what your prototype might look like. You can continue to update this plan throughout the week.

Due Thursday, January 15th
If your group plans to 3D print a component, the STL file must be submitted and approved by a TA by 7PM on Thursday night. Your component(s) must fit in a 2"x2" cube.

Due Friday, January 16th
Please be prepared to demo your prototype during a project expo in class on Friday. Groups will have some lab time on Friday to finish assembling their prototypes.

Groups are expected to document their projects on Build in Progress throughout the week. The BiP page should include any design files created during the project as well as images or videos of how your project came together. Please highlight any iterations or challenges in your documentation.

GUIDELINES

We expect that 70% of the project can be completed during class time. Please come to PDL shop hours to complete the remainder of your project. The shop will be open from 6-8 PM on Tuesday, Wednesday, and Thursday.

Please build the prototype using parts in your Arduino kits and materials in the shop. There are additional electronic components available to teams, which you can view on the course website (under "Electronics Shop Inventory"). Your group should not need to purchase any additional material for this project.