



The Haunted Arcade Interactive Halloween Carnival Games

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In preparation for the popular school-wide Halloween carnival, 7th graders challenged themselves to build and program entertaining carnival games. Working in pairs, students experimented with various ways to trigger MaKey MaKey circuit boards. Then they began developing carnival-style games that could be adapted to work with MaKey MaKey, Scratch and craft materials. Their primary goals for the project were to improve their programming skills, to improve their engineering/craftsmanship skills, and to practice a design process that includes prototyping, feedback and revision. After weeks of testing, students hosted their Halloween-themed games at the carnival. Popular games included pinball machines, ring toss, target games, a room escape activity, and whack-a-mole.

Teacher Reflection

The driving force of this project was the authentic audience. Since the entire school would interact with their project, the 7th graders were incredibly motivated to create an entertaining activity. One of the biggest design challenges was creating a game that would be fun for kids 4 to 14 years old, so whenever possible I had younger students play early versions of the games to provide feedback. This project gave students practice managing an open-ended, long-term project and quickly learned the importance of staying organized and productive.

Student Reflections

I learned how to make a pinball machine! The flippers especially were hard to make. I tried out numerous possible ways to make them before finding an outcome I liked (and one that worked). I know I can use the engineering and craftsmanship skills I learned in the future.

—7th grade student

I am particularly proud of the rail sensor in the middle. It took a lot of different ideas that didn't work, but I created something that worked pretty well.

—7th grade student