

Proposal: A Mobile Interactive Educational Experience in Themed Entertainment Design

CONTACTS

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ABSTRACT

The Themed Entertainment & Engineering Club at the Purdue School of Engineering and Technology in Indianapolis ("IUPUI"), in conjunction with IUPUI faculty, through club activity and respective coursework propose a mobile interactive informational experience that will educate viewers on what is possible in themed entertainment within the Purdue ecosystem. This will provide students working on the project the opportunity to create a themed educational experience. By demonstrating technology used in themed entertainment, creators will be able to increase their experience and portfolio in themed entertainment design while helping the recruitment of new students into this unique and exciting field at Purdue.

The purpose of the display will be to construct a modular and mobile unit that, beyond BGR, could be used for recruiting, taken to high schools, or used by the club and faculty to educate prospective students. Demonstrating elements that go into the design of an attraction, interactive components could include a 3d printed dark-ride model, miniature projection mapping, an electro-mechanical track, in-vehicle live video to show the guests view on the ride, some Purdue campus elements (small train), and provide ways for the user to control parts of the display. QR code links or augmented reality could be used on the viewer's devices if weather or security limitations affect the amount of hardware that should be present on-site and could provide enhancements to the experience. User devices, an interactive tablet, or educational signage would explain themed entertainment concepts and how it connects to various majors across campuses and schools. QR code linked web pages could also give viewers activity suggestions for trying entertainment technology or theming their own spaces at home.

The club would gain real-world project ideation and building experience while providing an appealing activity to get new members to join and participate. Since our themed entertainment courses are primarily taught online, this will give on-campus students the ability to do hands-on work and move beyond just the conceptual. Off-campus students would still be able to participate in interactive, educational, and concept design.

Madison Schnurpel, currently in club leadership, has committed to being a driver of the project for the club. In addition, faculty Josh Polk and Christian Rogers will support the building of this project with their expertise. They will create a Spring assignment exercise in CGT31700 (Planning and Communicating Themed Attraction Design) that challenges students to use blue sky techniques to create innovative concepts. Subsequently, a summer independent study course could be created if necessary to support dedicated work to the project. We would also like to involve our industry partners with site visits for an authentic design review and an opportunity for students to see a larger scale operation while gaining real world connections. To evaluate the effectiveness of this work, students will be asked to provide a post-reflection after participation.

After the BGR 2023 Challenge, this project could be disseminated at the next Academic Symposium at the yearly IAAPA Expo (Themed Entertainment and Attractions Academic Society), or other industry venues.

BUDGET

The Department of Computer Information & Graphics Technology at IUPUI has generously agreed to contribute an *additional* \$1500 to the budget to lend their strong support. Funds will go to anticipated project needs including a mobile cart, display/signage stands and printing costs, 3d printing materials, model parts, a mini projector, mechanical and electrical components, weatherproofing, and a tablet(s) for interactive educational elements and show control.