

The Ultimate PAX Booth for WPI

An Interactive Qualifying Project

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This report represents work of WPI undergraduate students submitted to the faculty as evidence of a degree requirement. WPI routinely publishes these reports on its web site without editorial or peer review. For more information about the projects program at WPI, see *<http://www.wpi.edu/Academics/Projects>*.

Abstract

The main objectives of this project were to conceptualize, design and run a showcase booth for WPI's IMGD program at Penny Arcade Expo East 2015. We researched previous PAX project groups' experiences, interviewed booth owners, and chose student projects to showcase. We presented the work of undergraduate and graduate students and handed out buttons, postcards, and undergraduate fact sheets in an attempt to increase visibility for WPI IMGD.

Authorship Page

The following sections of the submitted report were completed by Connor Porell:

- 1. Introduction
- 2. Literature Review
- 3.2 Background: About IMGD
- 4.1 Methodology: Information Gathering
- 4.2 Methodology: Booth Design
- 4.3 Methodology: Advertisement
- 4.5.1 Methodology: Project and Volunteer Selections: Project Selection

The following sections of the submitted report were completed by Jessica Taylor:

- Abstract
- 3. Background (summary)
- 3.1 Background: About WPI
- 3.3 Background: About PAX
- 4.4 Methodology: Budget
- 4.5.2 Methodology: Project and Volunteer Selections: Volunteer Process
- 5. Results
- 6. Conclusion

If there are no sub-sections specified, then it is assumed that the entire section was completed by the individual it is listed under.

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1. Introduction

Penny Arcade Expo East is an annual gaming convention hosted in Boston, Massachusetts. Originating in Washington in 2004, PAX has since expanded to include conventions in Boston; San Antonio, Texas; and Melbourne, Australia. At PAX East 2013, WPI hosted their first booth there, focusing on promoting the Interactive Media and Game Development (IMGD) program towards students looking to enroll in a game design program. Since then, WPI has returned to PAX each year in an attempt to promote the school and, more primarily, the IMGD program.

WPI was one of the first institutes in the US to offer interactive media programs for both undergraduate and graduate students. Founded in 2005, the IMGD program combines WPI's project-based learning philosophy with classes taught by industry veterans to create one of the highest-ranked game development programs in the nation.

As with previous years, the booth was manned primarily by IMGD students; the one change this year was that all our volunteers were students whose games were being displayed at the booth. The games displayed at this year's booths came from a variety of sources. While most of the projects shown were the Major Qualifying Projects of seniors, we also had a graduate project and several side projects displayed at the booth.

This booth was designed with several primary objectives in mind. These objectives include:

1. Raise awareness about WPI's IMGD program - The high attendance of PAX East means that a booth there advertises itself to thousands of people each day. Showing off the program at PAX gives us a chance to broadcast what the program is about to a large audience, and hopefully garner some interest.

2. Attract students to WPI's IMGD program - Many of the attendees of PAX are high school students or young adults who have not attended college. Advertising a game development program at one of the largest local gaming conferences offers a high chance of attracting students interested in the IMGD program.

3. Attract potential employers and create networking opportunities - The large number of game developers at PAX East offers many chances at networking opportunities. One of the goals of the booth is to attract these developers and raise awareness about the IMGD program, opening the way to potential job offers for graduates or MQP sponsorships.

Our goal was to create the best booth possible to show off the IMGD program at PAX East. Our challenge was to design a booth that gave the professional air reflecting the high standards expected of WPI students, while also being aesthetically pleasing and fitting in with the casual nature of PAX.

The booth design was a 10x30 foot open area that encouraged passersby to come in and play the games on display, pick up some giveaways, or talk to the staff about the IMGD program. Towards the front and center of the booth was a television displaying live feed from one of the games. Four games were on display on computers arranged along the back wall of the booth. In the center of the back wall, an arcade cabinet that plays student-made side projects was

stationed. Additionally, along one edge of the booth, there was a table containing giveaways and information about WPI and the IMGD program.

To design the best booth possible, we researched what went well and what went poorly with past years' booth organizers. We consulted with marketing professionals about the best way to advertise the school while still keeping in the spirit of PAX. We interviewed one of the original WPI PAX booth organizers and the Indie Megabooth organizer to get their advice on our plans as they developed, and their opinions on how a booth of this nature should be run. We created a full-page advertisement and secured a spot in the first few pages of the PAX booklet to display it. Additionally, we designed shirts and buttons to reflect the theme of IMGD. Most importantly, we selected a handful of MQPs to show off the amazing games that students in the IMGD program at the school have the potential to make.

This paper documents the process involved in creating, running, and analyzing our booth at PAX East 2015. It includes background information about PAX, WPI, and IMGD (Section 2); our methodology in designing the booth (Section 4) and our information-gathering process (Section 4.1); our booth designs (Section 4.2); our game selection process (Section 4.5); and a postmortem of the booth (Section 6).

Some acronyms that we will use frequently in the paper include:

- **WPI:** Worcester Polytechnic Institute
- **IMGD:** Interactive Media and Game Development
- **PAX:** Penny Arcade Expo
- **MQP:** Major Qualifying Project
- **IQP:** Interactive Qualifying Project
- **ATC:** Academic Technology Center

2. Literature Review

As part of our process for gathering information about booth design, we consulted the papers from the PAX IQP teams of previous years. The postmortems of the teams who ran the booth before us provided a good starting point for our design of the booth. After gathering information from the past years' reports, we had a good grasp of what ideas we wanted to bring back to the booth, which we didn't want to bring back, and which ideas could have been improved.

2.1 The 2013 PAX IQP Group

We first reviewed the paper of the 2013 PAX IQP group, the first group to represent WPI and the IMGD program at PAX East. One of the first things we looked for in the 2013 group's paper (referred to henceforth as the 2013 paper) was a schedule for the entire project to base our first schedule off of. After taking note of the 2013 group's schedule, we looked to see how well that worked for them, and how we felt about their schedule. For the most part, the schedule they used aligned with what we had planned - the 2013 group formed questions for the MQPs and opened submissions in B-term and chose MQPs early in C-term.

The 2013 group's criteria for MQPs ended up forming the basis for what we required each group to submit. For their submissions, the 2013 group was looking for details on an elevator pitch, a playable prototype, concept art, a final build plan, and target platforms from each MQP. We slightly condensed these requirements in part to reduce stress on the MQP teams, and partly because of our more rushed schedule. Due to PAX East being much earlier in the year in 2015 than it was in 2013, we were primarily concerned with receiving a playable demo early

in C-term, and having a final build plan so that a playable, stable, and somewhat refined build would be ready for the conference at the end of C-term.

Another important element we consulted the 2013 paper for was giveaways for the booth. The 2013 group stated that the best giveaways were small items, such as buttons and postcards, as larger items such as t-shirts, while they draw in attention, are not cost-effective, so shirts should only be bought in limited amounts, if at all. However, looking at their buttons designs, we decided that we wanted a different plan for our button giveaways. The 2013 group used a unique button for each game featured that year, as well as buttons for each of the letters in "IMGD". We decided to go with a different plan for buttons, as buttons advertising individual MQPs cannot be used in later years, and the letter buttons are meaningless on their own. We chose to go with more general-purpose buttons, using designs featuring WPI's logo as well as a custom design to promote the IMGD program.

The 2013 paper provided plenty of insight as to the objectives of the booth as well. The 2013 group stated that their first priority was to show off student work, and that recruitment was a second priority. Their objectives for the booth were to create awareness and generate interest in IMGD, to attract prospective students to the IMGD program, and to attract potential employment opportunities and company contacts. We used this as a model for how we prioritized the elements of our booth: advertising the school and the program first, and bringing in employment opportunities second.

One area of particular interest in the 2013 paper was the group's reflection on what parts of the project went well, what went poorly, and what they suggested for the next year's group. We took special note of what they did poorly and what they recommended for future groups, as

that information may have proven helpful in forming our plan for the booth. The 2013 group mentioned that among their biggest issues were communication and time management. They suggested that in future years, teams should have a consistent marketing theme across all elements of the booth, hands-on experience with the featured games is a must for the volunteers, and that enthusiastic and knowledgeable staff are crucial to the success of the booth.

2.2 The 2014 PAX IQP Group

The next paper we reviewed was that of the 2014 PAX IQP group. In this paper, we especially looked to how they built off the 2013 group's ideas as inspiration for how we might direct our vision for the booth.

For giveaways, the 2014 group recommended about 100 to 300 postcards. These postcards doubled as both an advertisement for the school and the IMGD program, as well as provided contact information for the school. These postcards gave visitors an opportunity to follow-up with the school to further explore the program or WPI as a whole. On the topic of buttons, the 2014 group recommended buying a maximum of 1,000 buttons, as they purchased far more than that and were left with a massive surplus after the conference. Additionally, they suggested that purchasing t-shirts for every IMGD student at PAX is not a good idea, as it is not very cost effective.

In their section on selecting MQPs to display at the booth, the 2014 group wrote up a series of criteria by which they judged all their submissions. They judged games based on their core gameplay, graphics, appeal, scope, polish, learning curve, pacing, and sound. While some of these are important, we felt that judging submissions by all these criteria is a bit much. For a demo, polish will be nearly nonexistent, graphics will be most likely unfinished, sound won't be

detectable at PAX, and the learning curve does not need to be a serious priority in a 10-minute session. Based on their list of criteria and our thoughts on some of those categories, we formulated a more concise version of the criteria by which to judge submissions for this year's booth. They also mentioned their interesting decision to select the 4 *most presentable* games, not necessarily the 4 *best* games. For the most part, the more presentable games usually are the better games, and vice-versa. The only time that a "good" game might not be considered for display at the booth would be in the case of an audio-based game, but we still kept this distinction in mind when choosing games.

Like with the 2013 paper, we looked to see which strategies worked well with the 2014 group, which worked poorly, and what they recommend for future years. Like the group before them, the 2014 group had communication issues. Additionally, they had organizational issues; they reported that the group did not collaborate enough, and that not all team members did their share. Among their recommendations for future years were the inclusion of a table front and center filled with giveaways such as buttons, as well as making sure that the booth is visible to passersby.

3. Background

To give an understanding as to the importance of hosting a booth for WPI's IMGD program at PAX East, we will explore a brief history and overview of WPI, the IMGD program, and PAX East.

3.1 About WPI

Worcester Polytechnic Institute, founded in 1865, was established for the sole reason of providing the masses with an exceptional science education (*Two Towers*). It was not until the late 1960's that WPI adapted its signature "Plan". The WPI Plan combines the theoretical based learning process of lecture and lab and combines this with practical, hands-on, projects to be completed by undergraduates within their years here (*WPI Plan*).

The WPI plan aims to arm each student with the ability to carry a wide range of theoretical knowledge mixed with industry experience. WPI's curriculum structure is designed to foster teamwork rather than harbor competition ("Princeton Review" WPI Overview).

WPI was, as of 2015, ranked 17th on a list of Top Undergraduate Schools for Video Game Design for colleges around the world, down from 7th last year, and 8th on a list of colleges with the best career placement, both rankings coming from The Princeton Review. It is this affinity for excellent job placement and desire to positively increase the IMGD program's impact to get back in the top ten gaming programs that makes WPI's presence at PAX East a logical step for the school to take.

3.2 About IMGD

WPI established the Interactive Media and Game Development program in 2003, as a way to introduce more interdisciplinary programs into the university's curriculum. At the time of

its founding, the IMGD program only introduced a few core classes; students would finish the rest of their requirements by either taking Computer Science or Humanities courses. Starting with only two tech professors and two humanities professors, the program added an additional tech professor and two visual arts professors as a result of the success of the program's launch ("A Brief History of the IMGD Program"). One of the first game design programs in the nation, WPI's IMGD program has been annually lauded, consistently ranking high on the Princeton Review's Top 10 Game Design Programs (*WPI News*), as well as earning praise from OnlineColleges.com and the magazine PC Gamer (*The Towers*).

The IMGD program offers two tracks for students - the artistic track, in which students learn 2D and 3D digital art, as well as concept art, animating, and level design; and the technical track, in which students study game programming and computer science skills related to games. Despite this split, one of the key features of the program is the artistic requirement for tech track students, and the programming requirement for art track students. Students in either track are required to take a few introductory courses from the other track, aligning with WPI's mission of making well-rounded students.

The IMGD program also places an emphasis on project-based learning. From their earliest classes, IMGD students in both tracks partake in a project-based curriculum, working with both art and tech track students while developing the team-based skills they will need to thrive in the industry. The program culminates in students making a professional-quality game as their Major Qualifying Project, serving as a "polished gem" for their portfolios. The program has attracted industry veterans such as Brian Moriarty, Rob Lindeman, and Keith Zizza as faculty. Through their mentorship, they pass on their expertise and real-world experience to help prepare IMGD students for the industry and develop their skills.

3.3 About PAX

What started as a relatively small gaming event in Bellevue, Washington eventually erupted into the PAX craze that exists today. The group behind Penny Arcade, a series of web-comics centered on video games, decided in 2004 that they wanted to start a convention that was open to the public to celebrate the gaming industry. They wanted the style of the convention to mimic that of E3, a large, industry professional only event, in that, they wanted to make gaming announcements and exclusives reachable to the large general audience of the industry. The first PAX ever held only attracted 4,500 attendants. Since then, the following has just about doubled in size each year and is now in the tens of thousands for just the East convention (*Brief History of PAX*).

PAX expanded to Boston for their PAX East convention in 2010 after the Penny Arcade team held pre-registration and saw a high volume of interest for a PAX convention in the Northeast area (*PAX East!*). This convention includes live music from various “nerdcore” performers, a console freeplay area, panels, a handheld gaming lounge, and the exhibition hall. A map of the exhibition hall can be seen in Figure 1. An overhead shot of the exhibition hall just before operating hours can be seen in Figure 2.

PAX East attracts several schools to their show floor. This year the event brought close to ten schools to the floor including, Becker College, Champlain College, Digipen Institute of Technology, and Elms College. Presenting your school on the PAX East show floor attracts students who are currently looking into undergraduate programs, students who are looking to continue their higher education with a graduate program, and students who are several years away from a college decision. This type of promotion is priceless for game design programs as the prospective students see the schools in a laid back and industry driven environment.

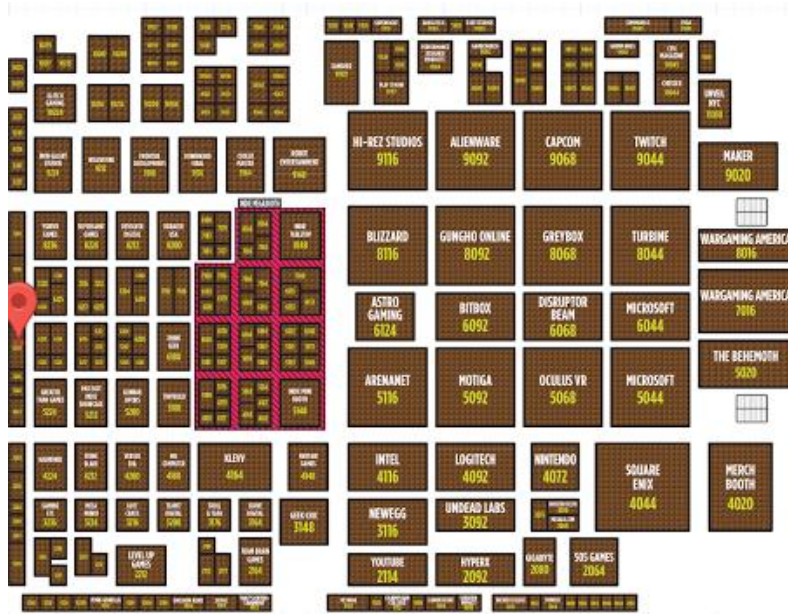


Figure 1: A view of the map of the PAX show floor

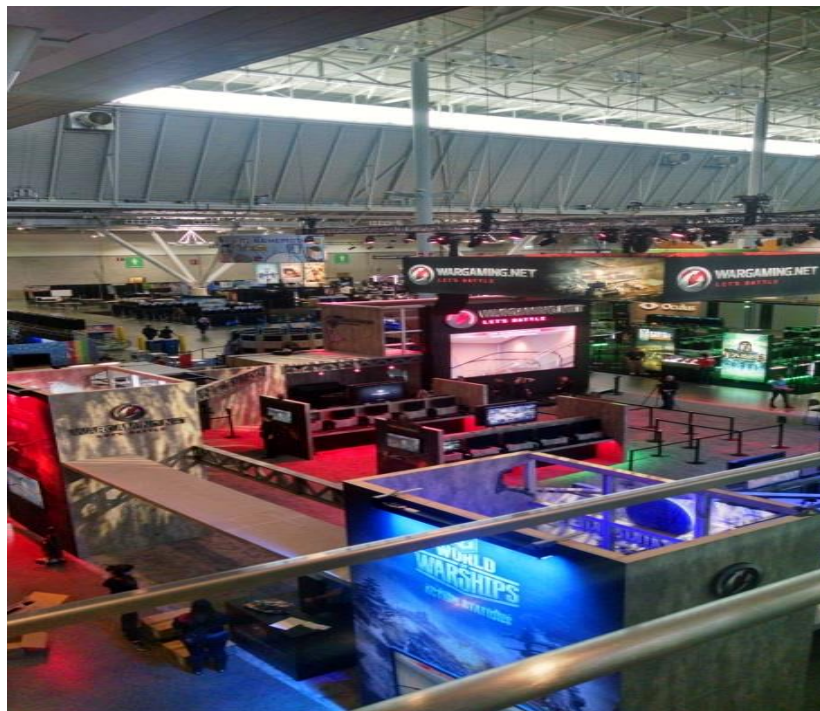


Figure 2: An overhead view of the show floor from the entrance.

4. Methodology

4.1 Information Gathering

As part of our design process, we spent the early weeks of the project gathering information on booth designs, advertising strategies, what to look for in MQPs, and budget planning. To accomplish this, we consulted the papers from previous years' IQPs, as well as marketing professionals and people who have had experience running similar booths.

4.1.1 Talks with Marketing

Early on in the project, we met with Jillian Ferguson and Amy Morton to discuss our plan for this year's booth. When creating initial plans and an early budget for the booth, we met with Jillian and Amy to get their professional viewpoints on our plans so far. They proved to be a very valuable source of information, especially since Jillian remained in contact with us, providing guidance and critique at virtually every step of the design process.

At our meeting with marketing, Jillian and Amy clearly communicated to us that the booth is primarily a recruiting tool for WPI. From their perspective, the main goals of the booth are, to 1) show off MQPs, to bring in potential job opportunities for seniors and graduate students; and 2) to showcase the IMGD program and advertise it to prospective students (*PAX IQP Budget Meeting with Marketing*). While a few of our other contacts told us that it is much more important to show off the program to prospective students (since developers rarely had time to wander the show floor), everyone we talked to was in agreement that promoting the school and the IMGD program was one of the top priorities.

Jillian and Amy also gave us a series of questions and pointers to consider as we designed the booth. They suggested that we have a sense of "brand recognition" about the booth, and that

we have a consistent theme so people will have a clear idea of what the booth is about. Additionally, they suggested that our ad in the PAX booklet be simple. An ad that clearly declares and shows off what the IMGD program is about is sure to leave an impression on those who see it. Towards the end of our meeting, the marketing team let us with some questions to consider. Do we want to do cross-promotions or sponsorship opportunities? How should we gauge our visitors' interest in the booth and the IMGD program? Should we ask visitors how they found out about the booth?

Our preliminary meeting with the marketing team left us with many useful tips for organizing the booth. Their advice and professional point of view was invaluable in helping shape how we accomplished the booth's goals.

4.1.2 Interviews

To help prepare the team for choosing advertising strategies, running the booth, and getting critique on our booth designs, we interviewed Cian Rice, who helped organize the first WPI PAX booth, as well as Kelly Wallick, the organizer of the Indie Megabooth at PAX East.

4.1.2.1 Interview with Cian Rice

Our first interviewee was Cian Rice, a WPI alumnus who worked on WPI's first PAX booth in 2013. Cian's experience with running the booth proved very helpful, as he was able to give us firsthand experience on what booth design strategies worked and which didn't work out well.

One of the first items we brought up to Cian was the matter of what comes with the booth versus what we will need to order. Cian told us that his group ordered a 10x20 foot booth, which came with 1 table, 1 chair, and a simple electric drop. He strongly recommended that we order a

larger electric source for our booth, as the one supplied is too weak to handle the computers that would be displaying MQPs.

When asked what the long-term goals of his group's booth design process were, Cian said that the most important thing about the booth is that it attracts people. A booth that doesn't attract people may as well not be there at all. He suggested we be aware of the booths around potential spots for our booth, as we didn't want a repeat of a previous year, in which the crowds from the adjacent booths more or less blocked off access to the WPI booth.

We then proposed our original schedule to Cian, to which he responded that it was a bit too idealistic. We originally wanted MQPs to be submitted by the end of B-term. Cian remarked that the MQP students would be better off having the Christmas break and the first week or two of C-term to put together a stable build of their game, instead of having to balance it with B-term finals. He suggested that we open submissions towards the end of B-term, but keep them open through the first full week of C-term, and that we send occasional reminders to the MQP teams. As for what types of games we should display, Cian suggested that we choose a wide variety of games. That way, passersby can see the diverse types of games IMGD students can make; plus, having different types of games increases the chance that there is something people will want to stop by and play.

On the topic of promotional material, Cian told us that his group created buttons for the school, as well as a unique button for each MQP, but he said that unique MQP buttons may be problematic. MQP buttons are essentially useless if they aren't all given away the year that MQP is featured, so he suggested we go with buttons for the school and the IMGD program.

Cian said that our ad for the PAX booklet should be vibrant. It needs to grab the attention of those who see it, and it needs to clearly convey what the IMGD program is about. Most importantly, it needs to give people a good reason to stop by the booth.

The last bit of promotional material Cian talked with us about was t-shirts for those working the booth. He said that they need to be "cool, something they'd wear when they aren't working the convention." Additionally, the shirts need to advertise the program, so there is a fine balance that has to be made between making a t-shirt that is both good-looking but also sells WPI and the IMGD program.

When we brought up the subject of social media, Cian remarked that the IMGD Facebook and Twitter pages were both pretty bare. To help boost the visibility of the booth, Cian suggested that we get on the IMGD social media accounts, especially as PAX approaches, to promote the booth's presence. We ended up using this advice to create an hourly giveaway on the IMGD Twitter account; each hour, one of the people running the booth would post a code word or phrase that, if a PAX attendee said it to a booth volunteer, would entitle that person to a free t-shirt. This giveaway ended up being a huge success.

Cian also recommended that we create a Facebook event to generate awareness about the booth's presence, and that we heavily advertise our presence on the IMGD website. When it came to information about the booth on the website, Cian responded that it has to be "all or nothing, no half-baked stuff." Additionally, Cian suggested that we try to organize some cross-promotional opportunities, although that never worked out.

Towards the end of the interview, we asked Cian if had any other general recommendations for us. He suggested that volunteers should have exhibitor passes, allowing

them to bypass the line to enter the convention. Without exhibitor passes for the volunteers, the booth would be incredibly short-staffed in the first hour or so of the convention. Another key piece of advice Cian gave us was what to do with the television screen in the booth. He recommended that we create a short (about 20 or 30 minutes) loop of game trailers, gameplay segments, and development time lapses from various MQPs. While we originally considered this, we decided to instead feature live streaming from the various games, so that passersby could watch people play the MQPs on a larger screen ("Tips for Running the IMGD Booth at PAX East").

4.1.2.2 Interview with Kelly Wallick

Cian put us in contact with Kelly Wallick, the organizer of the Indie Megabooth at PAX East. Kelly's professional experience with designing and running large booths for PAX proved invaluable, as she gave us excellent advice on how to stand out, what common mistakes we should avoid, and how we should advertise the booth.

Our first question to Kelly was on the topic of what we could do stand out among the other booths at the convention. One thing she suggested we do to stand out is to consider getting a banner to hang from the ceiling of the convention hall. This would give a booth of our size the best chance at being seen from a distance due to the regulations against placing booth materials higher than the black curtains behind the booth. We were originally thinking about acquiring a hanging banner, but after Kelly told us the cost of doing so, we decided to look for alternatives, as the cost was too much to even consider.

The next best thing that Kelly said we need if we want to stand out is good games. Specifically, she mentioned that the games not only have to be good, but they also have to be

"different, since [we] are trying to recruit." She suggested that having a diverse group of high-quality games on display at the booth is the best way to attract both prospective students and potential employers.

Kelly also recommended that standup banners and giveaways are crucial to standing out as well. She mentioned that while t-shirts can be expensive in larger quantities, it is a good idea to get at least a few to use as giveaways. She also suggested that we have other kinds of raffles (if we couldn't give away shirts) or a mailing list that people can sign up for to receive information about WPI and IMGD, while also becoming eligible for a prize. Kelly brought up the idea of prizes being given away for certain in-game achievements, as well. We ended up just going with the t-shirt giveaway, which turned out to be hugely successful.

Kelly remarked that the best way to attract people to a PAX booth is for those running the booth to invite the passersby in. She said that we should have volunteers or professors who are available to talk to anyone who walks into the booth and to answer questions at any time. She also mentioned that, in times of low attendance, one of the booth volunteers should play one of the games at the booth, so that there is always something going on that those walking by can see.

When asked about advertising, Kelly said much of the marketing for the Indie Megabooth is done through formal game press. She recommended that if we were to try to get game journalists to advertise our booth, we needed to get in touch with the press as soon as possible. She also mentioned that we talk to marketing ahead of time to get the word out about the booth. Kelly told us that she felt that the focus of our advertising should be on the games first, and the university second.

Kelly said that the most essential element of a successful booth is prior planning. She strongly recommended that we know everything about the booth, including giveaway schedules and contingency plans, ahead of time. She said that having a central theme to the booth was equally important. Having a central theme makes the booth more presentable, and gives attendees an idea of what IMGD is really about. Some more minor things she suggested we bring to the booth are lozenges, sanitizer, and carpet padding.

Our final question for Kelly was about common mistakes made by booth designers, and how we can avoid them. The biggest mistake that Kelly has seen booth designers make is that they underestimate time. She said that not being aware of time can cripple an otherwise great booth design. Kelly also said that not having enough volunteers can seriously hurt a booth, as it can result in some attendees having to wait longer than they should to get basic information about the IMGD program or the games on display. Lastly, she said that a common mistake is that booth designers don't make good use of the space they are given. Having an open floor is good for inviting in attendees, but having a booth be too open gives the impression that we don't have much to offer. Conversely, having too much in a booth can overwhelm the visitor ("Essentials for Running a Booth at PAX East").

4.2 Design

Designing the booth was an ongoing process that ran from the beginning of the project until just a few weeks PAX East started. Over the course of the months leading up to PAX, the booth's design was constantly evolving. As part of the design process, we settled on a theme to help deliver to the visitors what the IMGD program is about.

4.2.1 Booth Mockups

After our interview with Cian Rice, we began to create mockups for the booth. Taking his advice to keep the booth open, we made an initial series of mockups that place the games around the edges of the room, keeping the center open for visitors to walk in. Early in the design process, we got in contact with Benny Peake, a WPI student who was working on refurbishing an arcade cabinet that the school no longer wanted, and reprogramming it to play student-made games. We told him that we were interested in featuring his arcade cabinet at the booth, provided the cabinet was finished in time. He agreed, and we had a version of each iteration of the booth's layout feature space for the arcade machine.

We created two variants of the initial booth design. Having a 10x30 booth allowed for a more open space, allowing us to spread out the games and other tables to allow for people to be able to walk in and wander. One version of the initial design featured the four games along the edges of the room with a giveaway table in the center of the back wall; the other placed the arcade cabinet towards the center of the back wall, with the back tables shifted to the right or left. Stand-up banners from the previous years would be featured at either end of the booth. We designed both of these alternatives because the arcade cabinet was in the early stages of its construction, and we were unsure if it would be ready in time for PAX or not.

To create the mockups, we created a 10x30 grid in an image editor, then drew shapes over the grid to represent the approximate sizes of tables, chairs, and other booth items. Each grid square represents a single square foot. For the 3D mockups, we used the video game *Minecraft* to build a virtual representation of the booth. In the 3D mockups; we used a scale of 1 Minecraft block to 1 square foot. Figures 3 through 8 show our 2D and 3D representations of the initial booth designs.

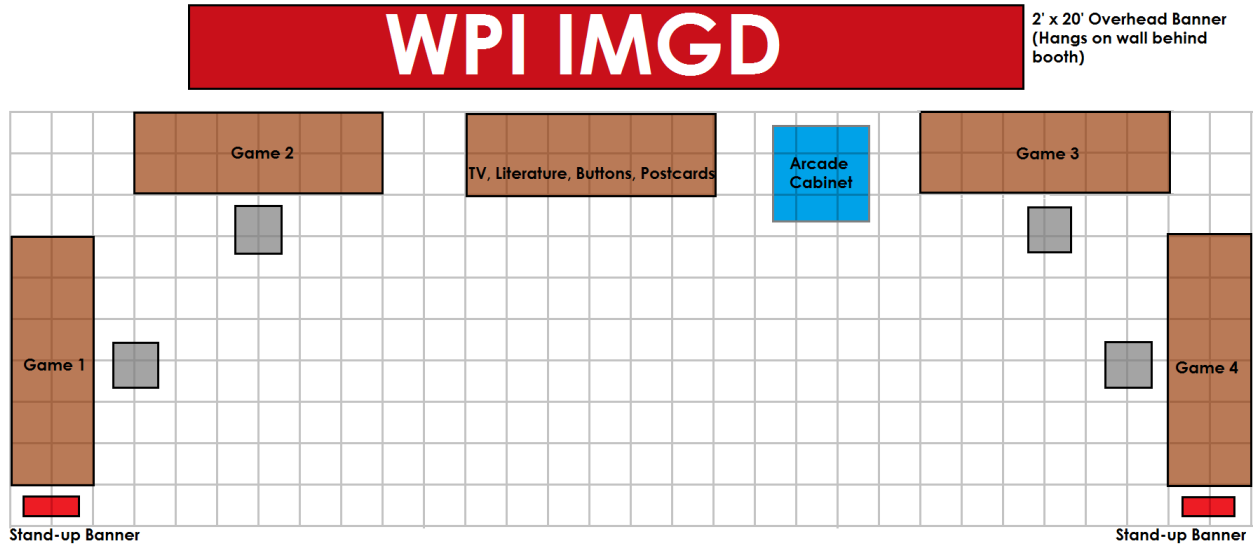


Figure 3: The initial mockup of the booth, featuring the arcade cabinet. 1 grid square = 1 ft².

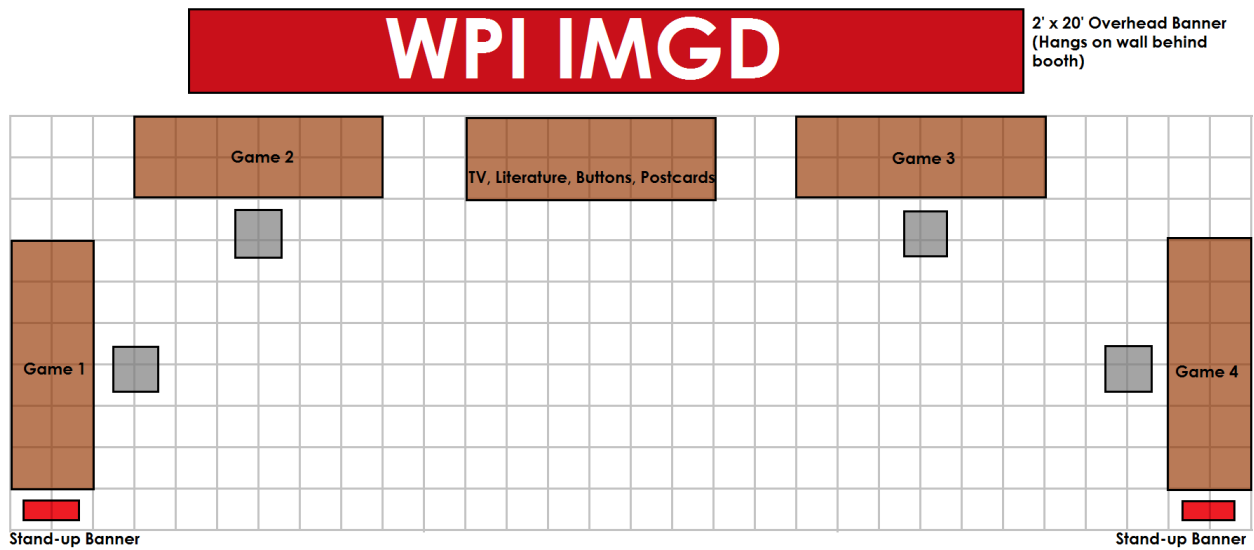


Figure 4: The initial mockup of the booth without the arcade cabinet.



Figure 5: A 3D mockup of the booth in the game Minecraft. Scale is 1 block : 1 ft².



Figure 6: A bird's-eye view of the 3D mockup.



Figure 7: Close-up of the back wall, where the giveaway table and the arcade cabinet were in the original mockups.



Figure 8: A mockup of the view of the booth as seen by passersby.

We presented these mockups to our advisors the following week. While they generally liked the overall design of the booth, they recommended that we have a television front and center. The initial plan was for this television to display a half-hour loop of trailers, gameplay, and development time lapses for a variety of IMGD MQPs. While we considered using this as the footage, we eventually decided that featuring live feed from the games would be more attractive, as passersby could view actual gameplay from the featured games. We felt that the live feed would help provide a better hook to get people to come into the booth. Additionally, they recommended that we display two games per table, as featuring only one game per 6-foot table felt unnecessarily spacious. Figures 9 and 10 show the revised versions of the booth's design.

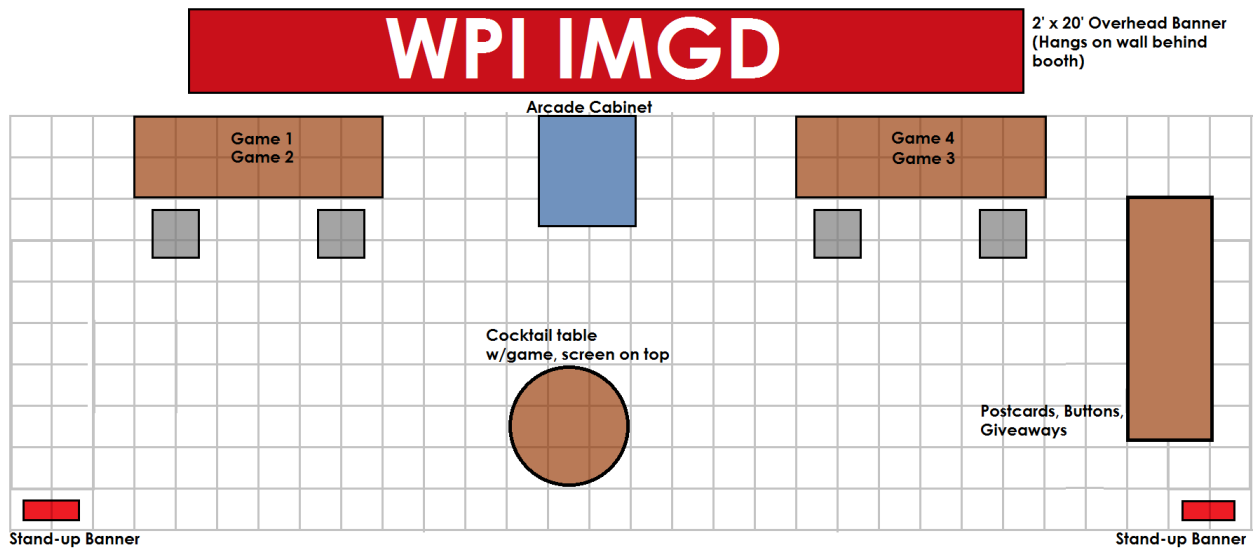


Figure 9: *The revised design plan for the booth. The arcade cabinet is directly in the back, and the television screen is placed front-and-center. The information and giveaway table has been moved to the side.*

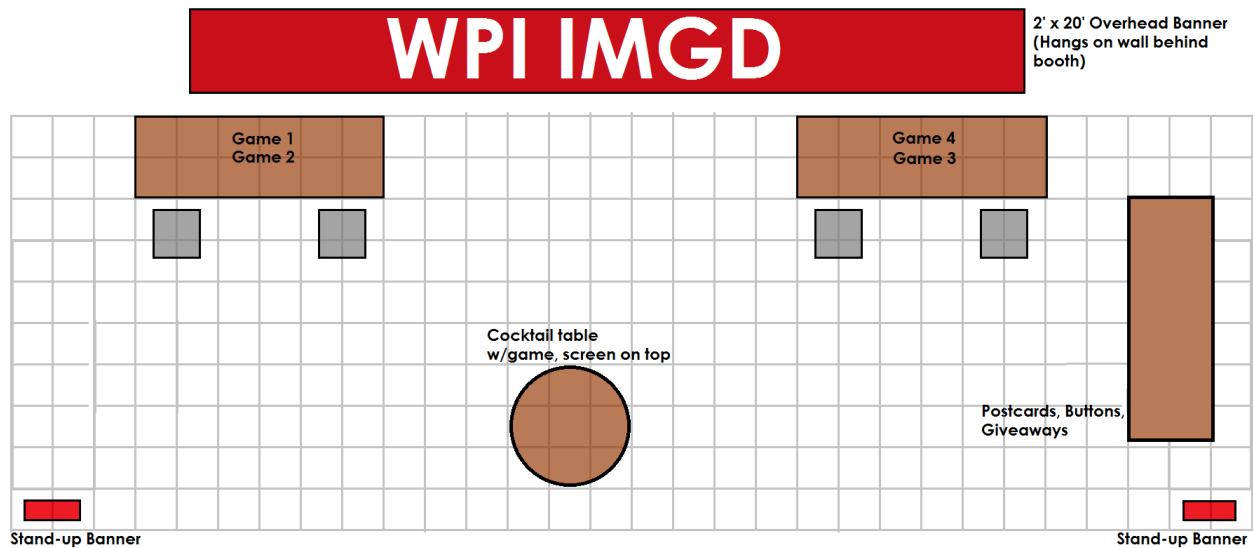


Figure 10 :The revised version of the booth design, minus the arcade cabinet. At this point, we were still uncertain whether or not the arcade cabinet would be finished in time, so we made sure to plan around it.

The revised design was approved by both the student members of the IQP as well as the advisors, so no other major changes were made during the course of the project. During the last few weeks, however, we made the decision to feature a student-created tabletop game in addition to the already selected games. To make room for the tabletop game, we ended up shifting the two game tables and the arcade cabinet towards the giveaway table by a few feet, as the table we used for the tabletop game was 5 feet in diameter.

Our booth was number 6240 at PAX East, a 10'x30' booth located near the eSports stage and the Indie Megabooth. The size of this year's booth was a considerable upgrade from last year's booth, allowing for more room for visitors to wander, as well as extra space for additional games to be shown.

4.2.2 Theme

As part of the design process for the booth, we wanted to feature a consistent theme that communicated the ideas behind the IMGD program while still fitting in with the casual spirit of PAX. We sought inspiration in the IMGD program's slogan "Art + Tech = Games," which ultimately became the theme for the booth as a whole. The slogan featured on many giveaways and other advertisements related to the booth, such as buttons, t-shirts, and the full-page ad for the PAX booklet.

We consulted IMGD Art student John Guerra to help us create an image to go with the slogan. He produced a picture of a game controller with one side covered in paint strokes ("Art"), and the other side covered in binary code ("Tech"). This picture became a symbol of our booth, as we displayed it on virtually everything related to our booth, including shirts, buttons, and social media posters. The controller image can be seen in Figure 11.



Figure 11: *The image that the booth theme stemmed from.*

4.3 Advertisement

Even the best-designed booths are meaningless if they are not advertised properly. To help promote our booth's presence at PAX East this year, we employed numerous strategies to increase the visibility of our booth. From reserving a full-page ad to giving away t-shirts with the IMGD program's website on the back, we made every effort possible to make sure that the attendees of PAX East 2015 knew of WPI's presence.


4.3.1 Program Advertisement

One of the earliest pieces of advertising that we created was the program advertisement to be placed in the PAX booklet as well as PC Gamer magazine. We decided that we wanted to move away from the "Chameleon" theme that was used in the past two years. As we were designing the ad, we looked to the IMGD art students for potential background images or other art to feature. However, after one of our advisors, Ralph Sutter, reviewed the submitted images, he deemed that none of them would work well as a background. He proposed an image that he created, displayed in Figure 12, to be used as the background for the advertisement, and this image was sent to Marketing for approval.

Marketing rejected the image proposed by Professor Sutter on the grounds that it was "too violent" and that it "lacked diversity." Taking these matters into account, we searched for another image. Professor Sutter came through again, this time with a well-detailed model of a lizard-like creature created by IMGD student Graham Held. The lizard was set against a grey gradient background and placed along the side of the image. This layout allowed for some brief details about the IMGD program to be placed in the center, as well as some art of the featured games to be displayed across the bottom. Marketing approved this design for use, and we sent it in to be published. The final version of the program ad can be seen in Figure 13 below.






Figure 12: Art for CORElated: The Beginning was our original choice to be used for the advertisement, but it was rejected due to its depiction of violence and its lack of diversity.

 **WPI**

ART + TECH = GAMES

Interactive Media & Game Development
at Worcester Polytechnic Institute

Bring your passion, hone your skills, learn to shine.

imgd.wpi.edu

Figure 13: This is the final version of the ad that was published in PC Gamer magazine as well as the PAX East booklet.

4.3.2 Postcard

The postcards were one of the most important parts of advertising the booth, as they are the primary way for visitors to get contact information about WPI and the IMGD program. When designing our postcard, we had several goals in mind. 1) The postcards had to be visually appealing, 2) the postcards had to provide contact information for the school and the IMGD program, and 3) the postcards had to say *why* one would want to enroll in the IMGD program.

For the visual aspect of the postcard, we used an image similar to the one used for the program advertisement. The wording was slightly changed to be more relevant to the IMGD program specifically, and one of the images was changed to reflect a change in the games that would be displayed at the booth. The different wording was picked to be more representative of what the IMGD program offers now (Art and Tech) as well as what it hopes to offer in the future (Music). This choice was met with criticism from IMGD faculty, who felt that it misled those who saw the postcards and that it was not entirely representative of the program. For the content on the back, we based the description of the program off of an older postcard used for advertising the IMGD program. Figure 14 shows the front of the postcard, while Figure 15 shows the back of the postcard.



Figure 14: The front of the postcards given to visitors of the booth.

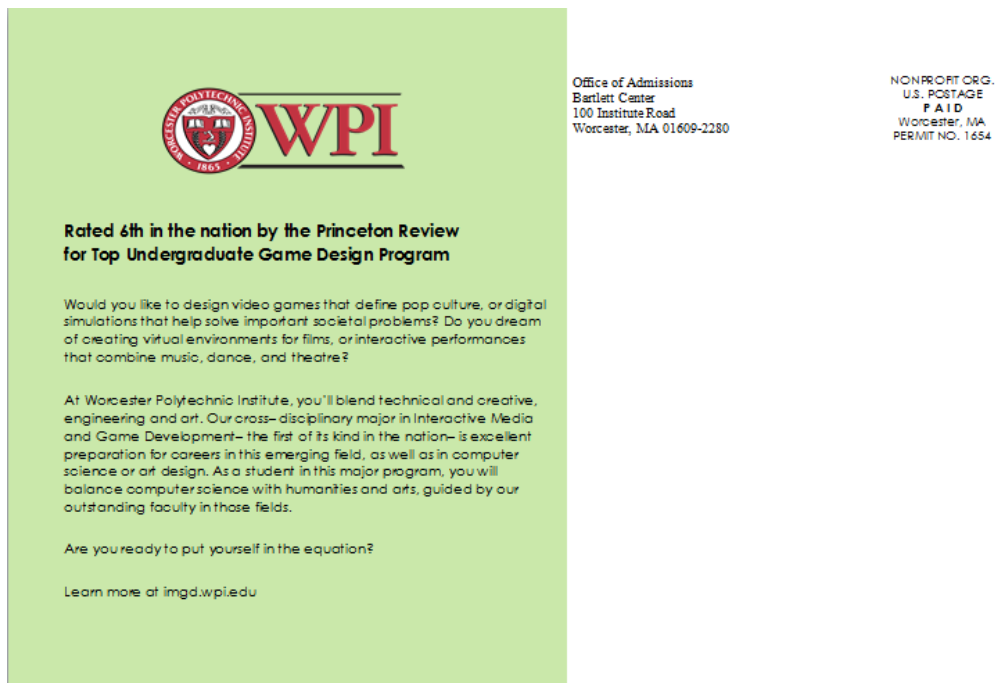


Figure 15: The back of the postcards given to visitors of the booth.

4.3.3 T-shirts

To help enforce the theme we had created for the booth, we designed a t-shirt for all volunteers to wear while they were on duty. We used a combination of the "Art + Tech = Games" theme along with the controller image created by John Guerra to decorate the shirt. Additionally, the back of the shirt listed the IMGD department's website. We decided that the shirts should be colored red with white text to match WPI's colors.

We ordered a surplus of shirts so we would have some to give away through contests, as detailed in the "Social Media" section below. The giveaway ended up being very popular, with visitors often coming to the booth for their shirt soon after a giveaway was announced.



Figure 16: The t-shirts that were worn by volunteers and given away as part of a contest.

4.3.4 Buttons

It is almost expected that a booth at PAX East have buttons to give away as a way of advertising their product. As such, we made sure to have a large supply of buttons on-hand so that we always had plenty to give away. For buttons designs, we made a serious change from previous years. This year, we elected to have a few designs that applied to the program as a

whole, instead of the buttons for individual MQPs that were given away in past years. We gave away three types of buttons this year: 1) "Chameleon" buttons from previous years, 2) buttons featuring the WPI crest in red-and-white and black-and-white variants, and 3) buttons featuring the controller design. The controller buttons were without a doubt the most popular of the bunch, as we ran out of controller buttons early Saturday morning.

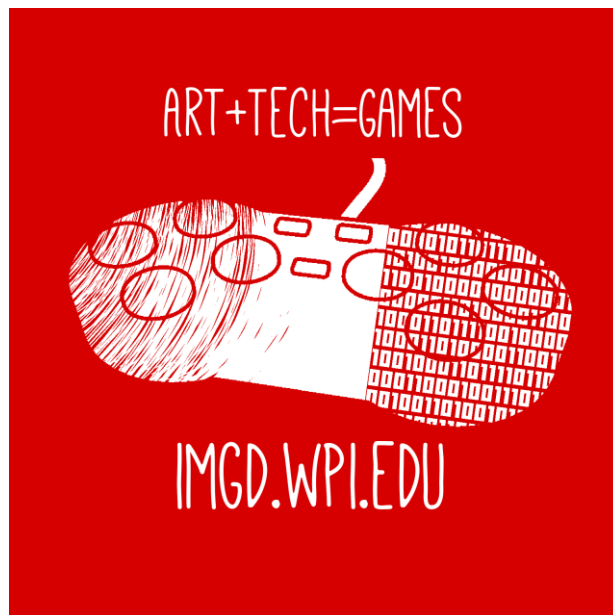


Figure 17: The design used for the controller buttons.

4.3.5 Social Media

Social media played a critical role in advertising the booth as well. Prior to the conference, everyone involved with this project was given access to the IMGD department's Facebook and Twitter accounts. Through these accounts, we began building hype and anticipation for the conference - especially WPI's presence at PAX - a few days prior to setting up. Throughout the weekend, we used the social media accounts to provide followers with constant updates regarding the school, the booth, and the games displayed.

The IMGD Twitter account was used especially extensively, as it was our way of performing the t-shirt distribution. Each hour, someone running the booth would post a password

pertaining to WPI, IMGD, or the games displayed on the IMGD Twitter account. The first person to repeat a particular password to someone running the booth won a free t-shirt. This giveaway turned out to be a massive success, as we gave away a t-shirt nearly every hour, and each hour there were multiple people who stopped by the booth and attempted to claim a shirt.

4.4 Budget

The budget for this project was \$10,000 with \$8,000 being allocated from the IMGD department and \$2,000 being allocated from the marketing department. Table 1 shows the breakdown of our budget. Any items with blank totals are representative of costs that were not disclosed to the IQP team at the time of writing this report.

Item	Price Total			
50 Shirts	456.52			
Booth	4800			
Advertisement	2000			
Invoice and Convenience Fee for Registration	40			
300 Buttons	83.9			
Passes	1980			
Furniture Rental	91.81			
Postcard Printing	96			
Plastic Stands	38.77			
Table Cloths	80			
Table Stands	16.68			
1000 Watt Box	183			
Assorted Purchases	125			
Travel Reimbursements				
ATC Missing Laptop Bag Fee	20			
Post PAX Thank You Gifts	25	Purchased with personal money, not taken out of the budget.		
Furniture Deposit (returned after rental is done)	-50	Not Included in Total Budget Price as it was a net 0 on the budget.		
Total	10036.68		Budget left:	-11.68

Table 1: Detailed budget for PAX East 2015

This year, due to unforeseen expenses at the end of the project, we went over our \$10,000 budget this year. These expenses include a fee for the ATC laptop bag that was stolen from the convention and travel reimbursements that we did not originally intend to give. We were strongly urged to give out these reimbursements regardless of budget and therefore we went far over. The laptop bag contained just the ethernet cord when it was stolen on Saturday sometime during the operating hours of the convention. We were charged \$20 in fees by the ATC. We created a list of things needed for the booth with exact amounts of those items needed and there was some non-approved spending that occurred when too many items were purchased and when items which were not specified on the list were purchased. There are no stand up banners included in this budget as we re-used a previous years set of banners. The line that refers to “Furniture Rental” covers the cost of 1 cocktail table, 2 6 ft. rectangular tables, 6 folding chairs, and 1 large round table. The “Plastic Stands” were used to hold small posters for each game and the table stands were going to be used to hold up larger landscape shots of each game, however, while at the convention we decided to scrap the idea and hang the posters instead. The “Assorted Purchases” line is in reference to various items such as, hand sanitizer, granola bars, water, sports drink, lollipops, chips, duct tape, etc. The “post PAX thank you gift” was a \$25 gift card to Olive Garden Restaurant for Gene Taylor, a father to one of the group members, as he helped us pack, unload, and transport items and set-up and take down the booth.

4.5 Project and Volunteer Selections

The selection of volunteers and MQPs for the booth is undoubtedly one of the most important elements of designing the booth, as these people and games are essentially the face of WPI and the IMGD program at PAX East each year. It is imperative that the volunteers and

games chosen leave a good impression on visitors, as the effect we leave on them at PAX East ultimately determines whether they come back for more information or not.

4.5.1 Project Selection

The MQP selection process began late in B-term, with a message to all IMGD students that submissions were open for their games, and that submissions would remain open until early C-term. Due to the early date of PAX, we made it clear that we weren't looking for final builds at the moment, but we were looking for playable demos at the very least. Students were asked to submit a 2-minute gameplay trailer with commentary explaining what exactly was going on in their game, and anything else we needed to know to judge their game. By the time of the deadline in early C-term, we had received nine submissions including six MQPs, an IQP, a graduate project, and a side project. The games submitted for this year were *Dark Horse*, *Kairos Odyssey*, *Tetrageddon*, *Aeroknights: Deathmatch*, *The Eco Kids and the Paper Pests*, *Hikari Michi*, *Xeero*, *Race Condition*, and *Myo Backgammon*.

Taking in mind the suggestions of previous years, we judged each game by which would be the most presentable, and which would help result in a good diversity of featured games. To determine which games to feature in the booth, we dedicated a meeting to watching all of the gameplay trailers and deciding which we would consider in a second round of voting, and which we felt weren't a good fit for the booth. Unlike past years, we did not use a numerical scoring system. This year's chosen games were *Kairos Odyssey*, *Xeero*, *The Eco Kids and the Paper Pests*, and *Hikari Michi*. *Race Condition* was chosen to be played on the arcade cabinet. *Aeroknights: Deathmatch* was originally among the selected games, but was dropped due to a series of conflicts. As PAX drew near, we made room to fit *Tactics Rumble*, a tabletop game, into the booth.

Kairos Odyssey, developed by Doug Davis, Mark Foster, Kedong Ma, Andrew Strout, and Chris Turner, is a physics-based puzzle-platformer in which the player uses an item called the Chronosphere to manipulate time and solve puzzles. *Kairos Odyssey* takes place in a land where time is frozen, and the player can restore time to its normal flow in small areas by using the Chronosphere. We chose *Kairos Odyssey* for its novel gameplay and stunning visuals.

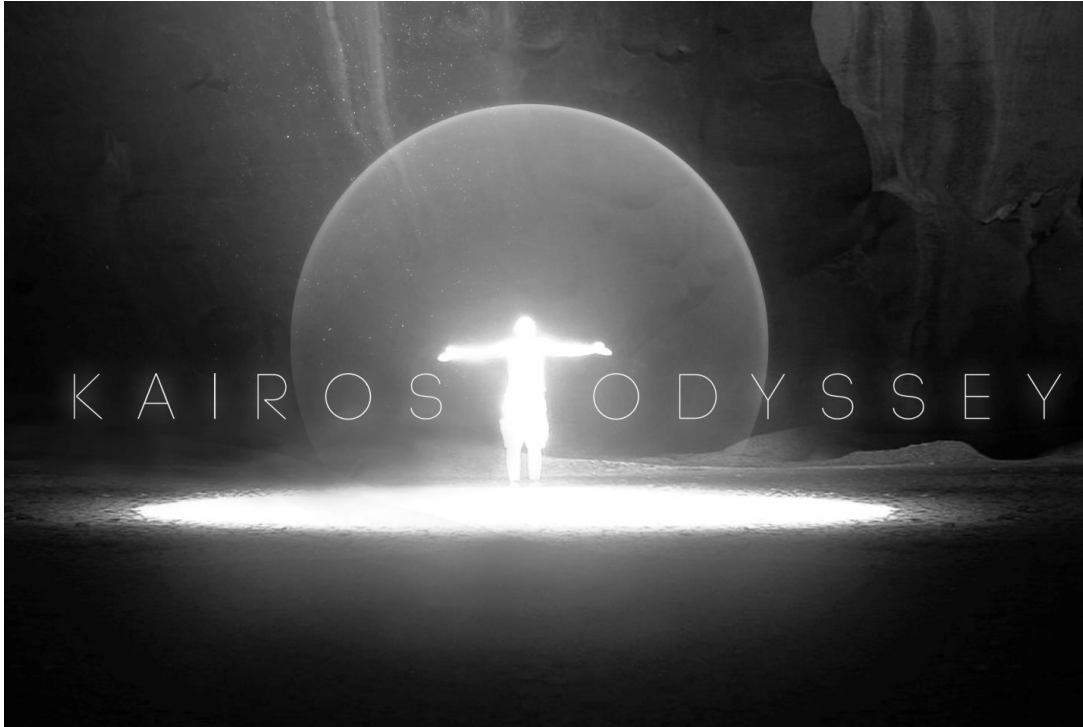


Figure 18: Title screen for *Kairos Odyssey*.

Xeero, developed by Dan Acito, Eric Anumba, and Anthony Sessa, is an action-platformer in which the titular hero must navigate through a computer's systems and literally stomp out bugs. In *Xeero*, the player acquires powerups to materialize blocks and fight viruses. We chose *Xeero* due to its tight, polished gameplay, and its popularity at last year's PAX.

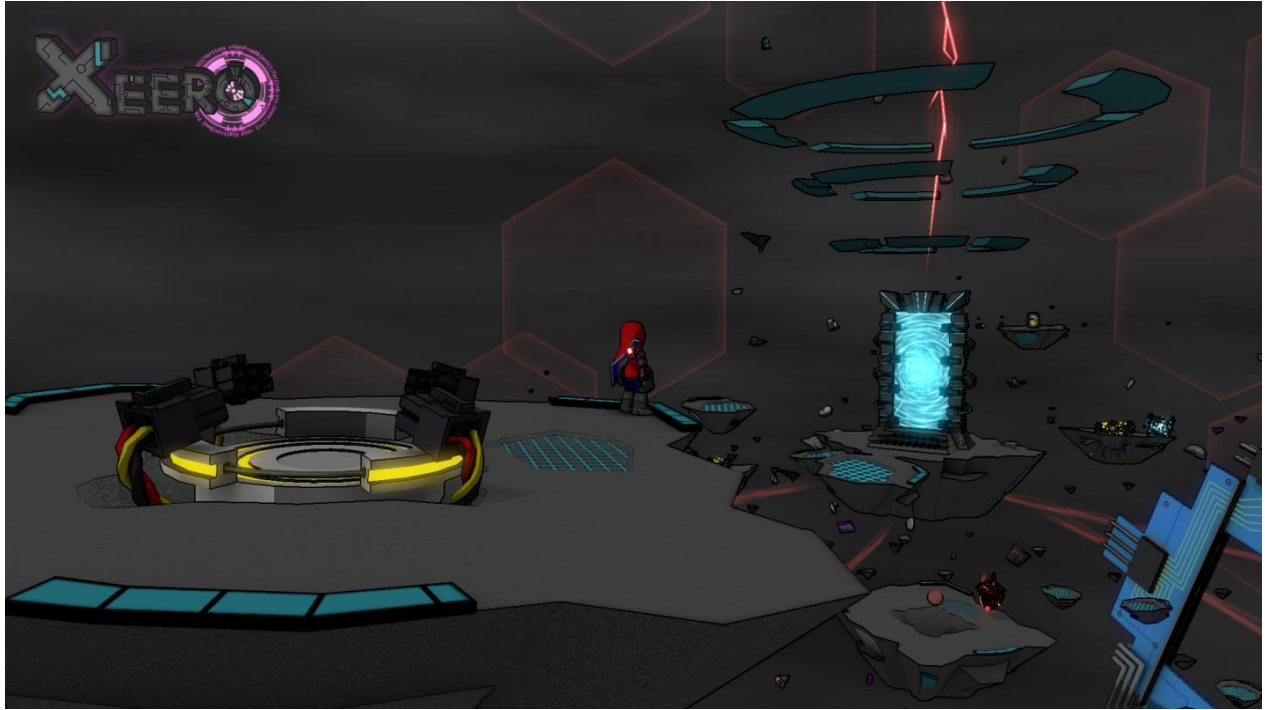


Figure 19: In-game screenshot of Xeero.

The Eco Kids and the Paper Pests, developed by Samson Kodzis, Evan Polekoff, Pat Roughan, and Kiara Vincent, is an educational turn-based strategy game based on a real-world invasive species problem. *Paper Pests* won the "Serious Alpha" award in the MassDIGI Game Challenge 2015. The player controls the two "Eco Kids" as they attempt to trap all the invasive opossums in the area before they destroy the environment. *Paper Pests* also features informational material about the invasive species problem that inspired the game. We chose *Paper Pests* based on its educational gameplay and subject matter.



Figure 20: An in-game screenshot of Paper Pests.

Hikari Michi, developed by Stone Cleven, Adam Degenhardt, Christian Manuel, and Nick Mollica, was created as part of the 2014 Japan MQP program. *Hikari Michi* is a time-trial-based racing game that uses a combination of the Oculus Rift and the Leap Motion. Players move the camera with the Oculus Rift while steering their character with the Leap Motion. We chose *Hikari Michi* due to its novel use of motion controls.

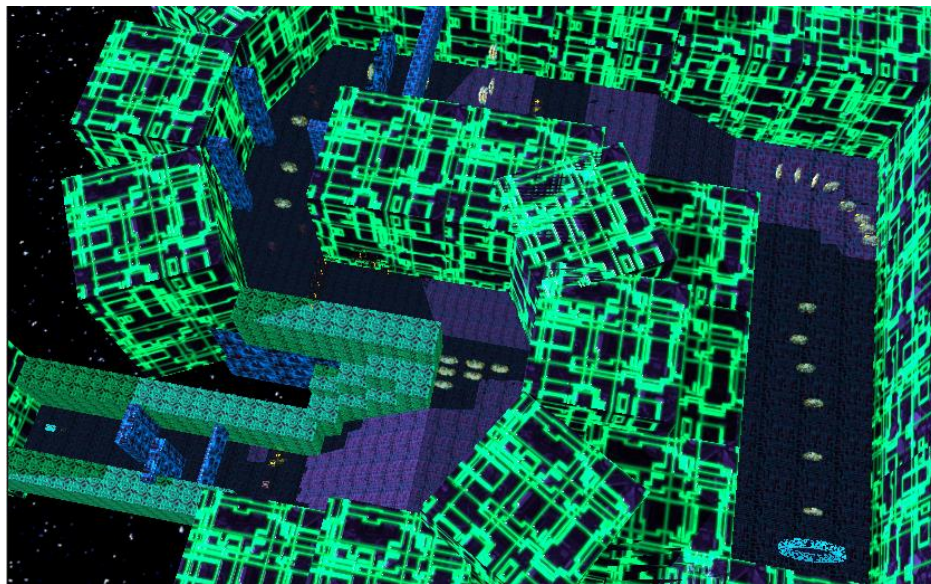


Figure 21: One of the levels of Hikari Michi.

Race Condition, created by Evan Polekoff and Alex Turland, was chosen to be the featured game on the arcade cabinet. *Race Condition* is a racing game that can be played with one or two people. Players navigate a tubular track where they can cause walls to rise and drop at will. Players are encouraged to watch their opponent's screen to cause walls to pop in at the optimal time to slow their opponent's progress.

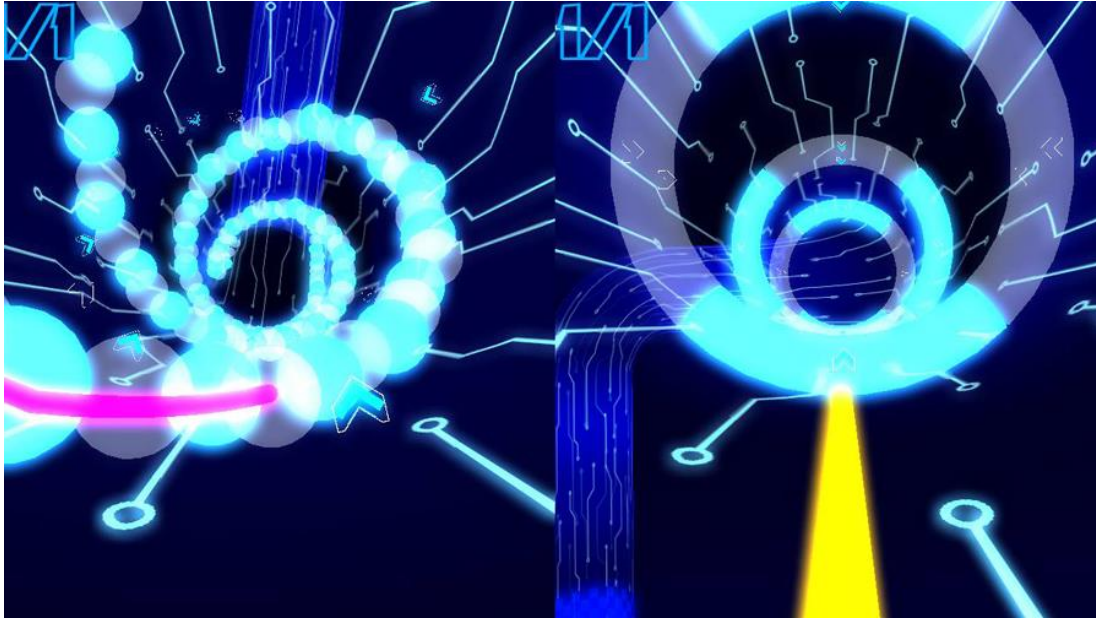


Figure 22: An in-game screenshot of *Race Condition*.

Tactics Rumble, created by Dillon DeSimone and John Guerra, is a tabletop game and winner of the Best Art award at the 2014 Boston Festival of Indie Games. In *Tactics Rumble*, two players choose three champions each and fight each other with the goal of defeating all their opponent's champions. *Tactics Rumble* features a wide variety of characters, ensuring that each session plays differently than the last.



Figure 23: Sample card from Tactics Rumble

Aeroknights: Deathmatch, developed by Adam Ansel, Michael French, and Thomas Hunt, is a multiplayer fighting combat game. *Aeroknights* was originally one of our four MQPs to be displayed, but was replaced with *Xero*. This change was due to a series of miscommunications and conflicts resulting from the lack of indication that *Aeroknights* required an internet connection and multiple computers to run, an accommodation we unfortunately could not make.



Figure 24: Aeroknights: Deathmatch in-game screenshot

4.5.2 Volunteer Process

This year we decided to use the project team members as volunteers in the booth. We did not actively seek outside involvement as we had plenty of students wanting to show their game in person at the convention. We had twenty student volunteers, five faculty volunteers, and two IQP members who worked in the booth over the weekend. Of those twenty student volunteers, twelve of them were MQP students, three were graduate students, four were there to represent personal undergraduate projects, and one was an undergraduate student who was not directly involved with any of the presented projects. The breakdown of volunteers can be seen in Table 2. The undergraduate student who was not involved with any of the projects was chosen as a volunteer due to his eagerness to help with the booth and with the cleanup phase of the project. Each student volunteer was given a 3-day PAX East pass and a free WPI IMGD PAX 2015 shirt in the few days before the event as a thank-you for their help through the weekend.

	MQP	Graduate	Undergraduate Personal Project	
Volunteers	12	3	4	
	Faculty	IQP Team Member	Non-Project Student	Total
Volunteers	5	2	1	27

Table 2 Breakdown of volunteers

Each faculty member was given an exhibitor pass and a t-shirt, however, they were asked to wear their faculty polos to their shifts in the booth. We only had one professor not show up to his shift which, ultimately, hurt us due to the fact that we were then down an exhibitor pass for the entire weekend.

A survey was sent out to all of the chosen project teams to inquire about their availability for the weekend, their t-shirt size, and to see if there were any questions for the team. After the deadline for submission for this survey had ended, we developed a volunteer schedule. We

decided that the two members of the IQP team would take alternating two hour shifts. There was only one section of time when there was not at least one of us on duty and this occurred on Sunday morning when most of the other volunteers working had had some experience at the event. The detailed volunteer schedule for the weekend can be seen in Table 3.

FRIDAY					
10 am - 11 am	Eric Anumba	Keith Zizza	2 pm - 3 pm	Dan Acito	Jess Taylor
	Stone Cleven	Jess Taylor		Nicholas Mollica	Benny Peake
				Anthony Sessa	
11 am - 12 pm	Eric Anumba	Keith Zizza	3 pm - 4 pm	Dan Acito	Jess Taylor
	Stone Cleven	Jess Taylor		Nicholas Mollica	Benny Peake
				Anthony Sessa	
12 pm - 1 pm	Christian Manuel	Rob Lindeman	4 pm - 5 pm	Adam Degenhardt	Connor Porell
	Andrew Strout	Connor Porell		Douglas Davis	John Guerra
	Alex Turland				
1 pm - 2 pm	Christian Manuel	Rob Lindeman	5 pm - 6 pm	Adam Degenhardt	Connor Porell
	Andrew Strout	Connor Porell		Douglas Davis	John Guerra
	Alex Turland				
SATURDAY					
10 am - 11 am	Sam Kodzis	Ralph Sutter	2 pm - 3 pm	Christian Manuel	Jess Taylor
	Nicholas Mollica	Jess Taylor		Andrew Strout	Anthony Sessa
	Alex Turland			Kedong Ma	
11 am - 12 pm	Sam Kodzis	Ralph Sutter	3 pm - 4 pm	Christian Manuel	Jess Taylor
	Nicholas Mollica	Jess Taylor		Andrew Strout	Anthony Sessa
	Alex Turland			Kedong Ma	
12 pm - 1 pm	Mark Foster	Dean O'Donnell	4 pm - 5 pm	Stone Cleven	Connor Porell
	Evan Polekoff	Connor Porell		Kiara Vincent	Dillon DeSimone
	Adam Degenhardt				Chris Turner
1 pm - 2 pm	Mark Foster	Dean O'Donnell	5 pm - 6 pm	Stone Cleven	Connor Porell
	Evan Polekoff	Connor Porell		Kiara Vincent	Dillon DeSimone
	Adam Degenhardt				Chris Turner

SUNDAY					
10 am - 11 am	Dan Acito	Jess Taylor	2 pm - 3 pm	Chris Turner	Britt Snyder
	Douglas Davis	Dillon DeSimone Benny Peake		Evan Polekoff	Jess Taylor
11 am - 12 pm	Dan Acito	Dillon DeSimone Benny Peake	3 pm - 4 pm	Chris Turner	Britt Snyder
	Douglas Davis			Evan Polekoff	Jess Taylor
12 pm - 1 pm	Eric Anumba	Connor Porell	4 pm - 5 pm	Mark Foster	Ralph Sutter
	Kedong Ma	John Guerra		Kiara Vincent	Connor Porell
1 pm - 2 pm	Eric Anumba	Connor Porell	5 pm - 6 pm	Mark Foster	Ralph Sutter
	Kedong Ma	John Guerra		Kiara Vincent	Connor Porell

Table 3 Final volunteers list for the event weekend

Before the start of PAX, we held an informational meeting for all of the volunteers. During the meeting, we informed the volunteers of our expectations of them, we showed them the schedule for the weekend, we offered travel tips, we shared information about the operation of the booth, and we answered questions in person. A summary of the presentation is as follows:

- Upcoming Deadlines for MQP Teams
- Schedule of volunteers for each day
- Information about pass pick ups
- Travel information
 - Train Schedules
 - Parking Info
 - Shuttle schedules
 - Reimbursement Information

- Checklist of what to do the day of PAX
 - Wear your WPI IMGD PAX 2015 shirt
 - Pack your badge
 - Eat a good meal, though there will be light snacks available at the booth
 - Prepare a short pitch for your game
 - Check in with an IQP member when you arrive for your shift
- Shared the shirt design (Can be seen in Figure 16)
- Showed a map of PAX (Can be seen in Figure 1)

This meeting allowed us to put names to faces as we were preparing to go to the convention. It also allowed us to answer questions in real time which allowed us all to avoid the clutter and time constraint of answering through email.

The increased number of volunteers in the booth from the past few years worked for us. This year we needed to increase the amount of volunteers as we had more booth space to cover and more projects than ever to show off.

5. Results

This year, four digital games were shown, one tabletop game, and one arcade cabinet and one arcade game were chosen to show in the booth. One design was used on the t-shirts, small stand-up sign, and buttons. There were twenty student volunteers, five faculty volunteers, and two IQP team members involved in the orderly maintenance of the booth throughout the weekend of PAX East. We did exceed our budget for this project as is discussed in section 4.4 of this report titled, “Budget”.

5.1 Execution of Booth Layout

The executed layout of the booth at the convention was very similar to what was predicted in Figure 9. The elements shown in that design, (Giveaway table to the right, two project showcase tables along the back wall, and the arcade cabinet), were all used in the actual booth. The only added feature for the booth is a large circular table set off to the back left of the booth, which housed *Tactics Rumble*. The added table can be seen in Figure 25. We decided to place the buttons, postcards, informational flyers, and social media flyer on the front cocktail table which housed the television. This setup can be seen in Figure 26. The giveaway and information table (Figure 27) was placed on the right side of the booth and was adorned with a WPI branded tablecloth. The bright red color and the professional, neat look ended up being a good strategy to attract visitors even though the table was partially obstructed by the stand up sign. The table housed informational flyers, buttons, our social media flyer, lollipops, buttons, hand sanitizer, post cards, and a small basket for waste disposal.



Figure 25 Tactics Rumble table setup at PAX

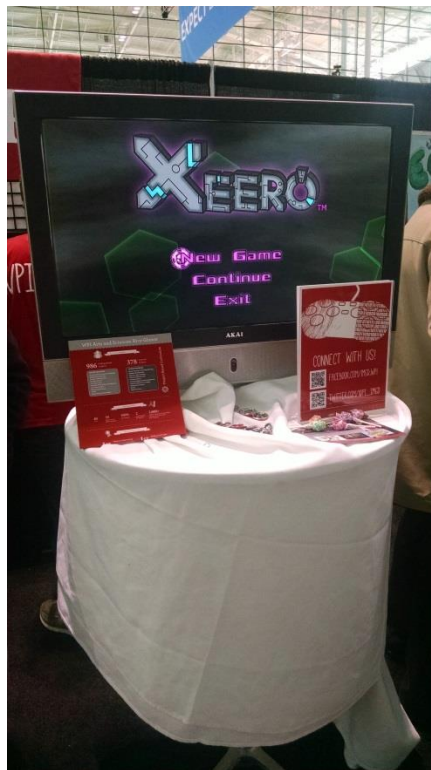


Figure 26 The front cocktail table holding several marketing items.



Figure 27 Information and giveaway table being kept neat to allow for the giveaways to be shown properly.

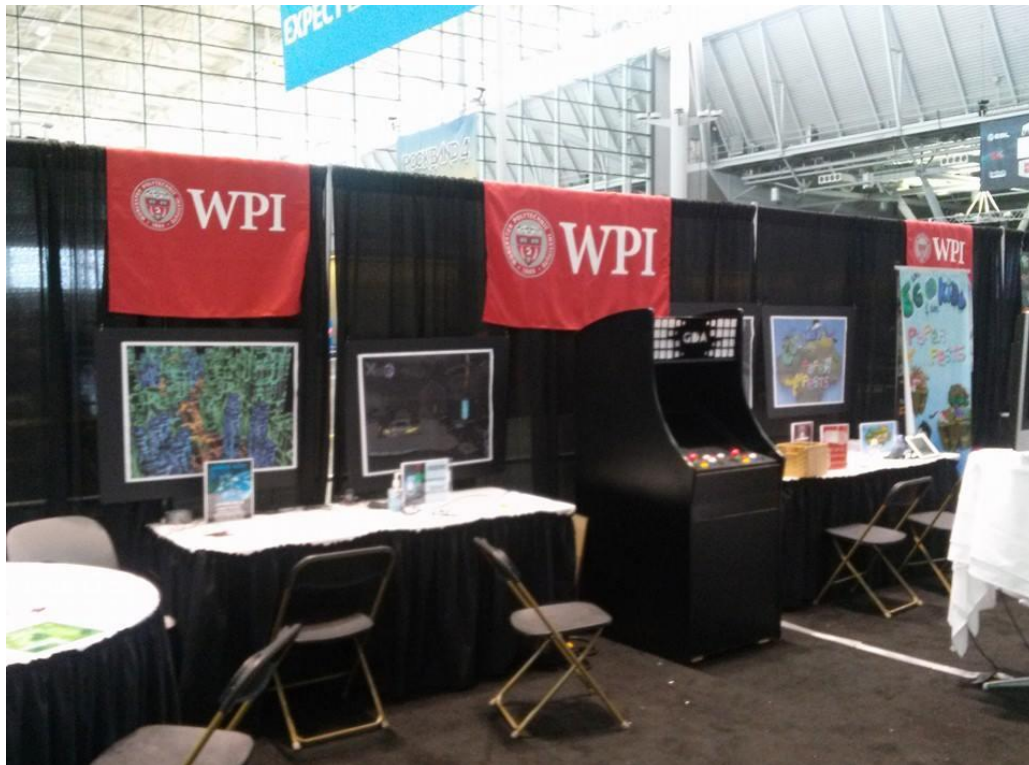


Figure 28: A picture of the full booth taken during setup.



Figure 29: The giveaway table's side of the booth. Photo taken during setup.

5.2 Effectiveness

The goals of the booth for this year were as follows:

- 1. Raise awareness about WPI's IMGD program**
- 2. Attract students to WPI's IMGD program**
- 3. Attract potential employers and create networking opportunities**

To track the effectiveness of the booth this year, keeping these goals in mind, we looked into the increase of followers on IMGD social media accounts, the WPI mailing list sign-up sheet, the number of buttons given out, and the number of participants in the booth giveaways. A more qualitative approach to determining the overall effectiveness of the booth was to look at the interactions between the volunteers and other prominent convention goers.

5.2.1 Metrics

The first method used to track the effectiveness of the booth to raise awareness of WPI's IMGD program was to look into the increase in followers for the IMGD Twitter and Facebook pages as they were highlighted at the booth and the volunteers were instructed to encourage visitors to follow those accounts. According to the Twitter analytics site, the IMGD twitter gained fourteen followers between 2/28/15 and 3/14/15. There is no way to know the exact number of followers gained only throughout the weekend of PAX East, but we believe fourteen to be a good estimate of the increase of followers gained due to the booth. The Facebook follower count was also tracked. There were five new followers directly resulting from the advertisement in the booth. These sites were used to advertise the t-shirt giveaways at the booth through the event. We had 6 people participate in the giveaway which means that those people were engaging with the social media sites at some point during the weekend.

Throughout the weekend, all 300 of the large buttons were taken and an estimated 700 small buttons were taken. These numbers do not give an accurate representation of the number of participants in the booth.

In order to evaluate the effectiveness of the booth to attract students to WPI, we counted the number of people who signed up on the WPI IMGD mailing list. We had seventeen unique sets of information for the mailing list. We believe that this represents the number of people who are serious about their interest in WPI. If even one of these prospective students enrolls in the program, the revenue generated from their tuition results in a return on investment several times over. On top of the mailing list, we also received an estimate of five queries about programs for students of non-college age.

The only way of tracking the effectiveness of the booth to attract potential employers and create networking opportunities is qualitative. The Kairos Odyssey team was approached at the booth by a game publishing company representative who was interested in being involved in a process of publishing their game. Another volunteer at the booth was given a business card by a Logitech representative who was interested in coming to the school to do a program with us.

5.3 Evaluation

After reviewing the tracking methods above and witnessing the traffic of the booth during the event, we believe that we successfully completed the three goals that were set forth in the beginning of the project. The final booth layout turned out to be similar to our original vision with only small revisions to account for last minute changes in the types of games being shown in the booth. In the future, more accurate measure of quantitative success should be used.

6. Conclusion

WPI having a PAX East booth to represent the IMGD program has become a tradition as there has been a booth at every PAX East convention since 2013. This tradition helps the IMGD program, the school and the students whose projects are shown.

The booth is maintained in an attempt to attract new students, to raise awareness of the IMGD program and of the school, and to provide a platform for students to show off their major projects.

The process for creating the WPI PAX East booth was to gather information, design and plan the booth, purchase all additions needed for proper maintenance of the booth, choosing

projects to show to the public, create advertising and giveaways, and to execute all of these steps at the convention.

The booth contained four ATC laptops showing three MQPs and one graduate game, an undergraduate independent tabletop game, a student made arcade booth showcasing a student made project, a television for better visibility, and a giveaway table. Postcards, informational flyers, overhead banners, stand up banners, buttons and t-shirts worn by the volunteers were all used as forms of advertising for the school and the IMGD program. The booth was staffed by IMGD faculty and by the students whose games were included in the convention.

6.1 Post Mortem

As can be expected with projects that see through the planning and actual execution of the project, there were many successes and failures throughout the process.

6.1.1 Successes

Though there were only two group members for the PAX project this year, the distribution of the work lead to a successful booth. One team member dealt with the internal relations of the project, such as keeping contact with the volunteers, communicating with the project students, and being a liaison between the school and the PAX representatives. The other team member dealt with external relations such as furniture and accessory rentals and contacting professionals for potential interviews. Though the work was split in this way, the team members communicated well and everyone involved had a thorough knowledge of all portions of the project.

The layout chosen for the booth seemed to be successful based off of the feedback given by students who had seen booths in previous years. The open layout with all game screens being

easily visible from the front of the booth allowed for an inviting environment. The size of the booth allowed for some experimentation with the layout this year. The space allowed for the inclusion of an arcade cabinet this year. The nostalgia factor of the cabinet and the easy to pick learn game being shown off drew in several visitors. The quick gameplay of the arcade cabinet ensured that visitors did not have to stand with nothing to do while waiting for another game to free up. It was often suggested that anyone waiting in the booth played a pick-up game on the arcade cabinet and it generally improved the mood of the visitors in the booth.

Choosing to place a television in the front of the booth was another part of the layout that ended up being a success at drawing in visitors to the booth. Xeero happened to have a menu trailer which was put on the television when the game wasn't being played. The music and constant movement of the gameplay preview caught peoples' eyes and ears and caused them to stop to check out what was playing on the screen.

The many successful decisions made by the team this year lead to a booth that was said to be better than what PAX-goers had seen from our school in the past. The layout decisions and the natural separation of responsibilities between project partners during the project lead to a seemingly successful WPI PAX East booth.

6.1.2 Shortcomings

While we experienced many successes during the project, we also ran into a number of difficulties on the way. These difficulties stem from a range of things including poor planning, miscommunications, and unfortunate timing.

Arguably the most difficult thing to overcome for this year's convention was the timing of the event in relation to the WPI school year. PAX East took place between Friday March 6th,

2015 and Sunday March 8th. This was much earlier than the convention generally takes place. The project was officially started at the beginning of B-term (October 28th) which meant that we only had two terms to fully plan and put together the booth with many submission deadlines coming soon after the start of our project. The timing of the event also affected the nature of the projects that were shown. Because of the structure of the terms at WPI, many of the projects were far from being final builds and one of the projects even required updates at PAX. It was difficult to ask these groups to submit a playable build so early in their development process. Thankfully, the groups understood the time crunch and worked to get their games in good condition for the convention.

One of the projects that was denied in the process of planning for PAX was affected by the time constraint. This project was titled “Aeroknights: Deathmatch”. In the original pitch for the game, it was described as a “3-D multiplayer flying arena combat game” (*Aeroknights: Deathmatch – MQP Trailer*). This game was originally chosen to be a part of the booth for PAX 2015. However, the team failed to disclose that their game would require a wireless connection and multiple desktop computers. These were conditions that we could not meet for the team. If they had had more time, they said they would have been able to have gotten LAN (local area networking) to work in order to play their game at the convention. We had to, unfortunately, go with another project that we could accommodate in the booth. The team behind *Aeroknights: Deathmatch* was not pleased with this development and began to demand our attention which was a large distraction near the end of the project when we should have been focused on other things regarding the booth.

Communication was sometimes lacking within the group of IQP members, advisors, and PAX representatives which lead to large stalls in the project. Email was the main form of

communication used in this project with in person meetings happening once or twice a week. Emails were often left unread by project participants when their input was critical for decisions to be made.

In addition to poor communication from several sources, there were also, as the saying goes, too many cooks in the kitchen for this project. There were several sources of conflicting opinions and commands that it became difficult to make informed and timely decisions about even the smallest of details of the booth. Because of the high volume of opinions being presented to us and the amount of executive decisions being made by faculty, it often took control out of the team's hands. The large scale nature of the project attracted the attention of almost the entire faculty of the IMGD department who, though they had no direct connections to the project, often offered their emotion driven opinions about the direction of the booth which caused some snags in the timeline.

Poor planning on certain aspects of the project lead to a few different problems during the event and in the post stages of the project. Not keeping the ATC laptop bags under locks at all times made way for one of them to be stolen at the event. There was only an Ethernet cord in the bag at the time of the theft, but we were responsible for it and the payment for the missing items came out of the IMGD department budget.

Another example of planning going wrong at the event was the decision to give the professor volunteers the exhibitor passes and then running into a problem with the enforcers at the event when the cleanup crew did not have the proper type of pass to be in the exhibition hall late. One of the professors did not even show up to the convention all weekend, therefore we

were down an exhibitor pass for the entire event. Many of the other professors left before cleanup happened and we could not use their passes for the actual volunteers helping out.

After the event had completed, we realized that we had not planned on counting the actual number of visitors in the booth. This oversight in the planning process makes it impossible to have quantitative data for how successful the booth was this year.

Despite the shortcomings, the booth showed well and the behind the scenes snags that we ran into did not negatively influence the visitors' experience in the booth as we had many verbal compliments on the state of the booth throughout the weekend.

6.2 Suggestions for Further Projects

- **Bring a vacuum to the convention.**
 - There is a fairly heavy amount of foot traffic in the booth and the black carpet that the convention hall provides will show all of the dirt that gets tracked through for the entirety of the weekend. It will ultimately enhance the visitor's experience if the booth looks as presentable as possible.
- **Make overhead signage for each game that contains the name of the game, the names of the team members who worked on that game, and perhaps a short description of the game.**
 - This year we attempted to use art submissions from each team to make a backdrop for each game. The idea was inherently good, however, having signs that more clearly represented what each game was may have attracted more visitors to each playing station.

- **Be more authoritative towards the volunteers during the convention.**
 - Keep better control over the volunteers who are in the booth during the convention. Make sure they follow the rules and are being proactive about attracting convention goers to the booth. This year there was a problem with volunteers leaving their belongings in the middle of the booth and that would not have been a problem if we had been clearer on our authority over the volunteers during the event. Make sure to let the volunteers know that they should make arrangements to store their belongings somewhere other than in the booth.
- **Make sure to educate each volunteer on how to play all of the games.**
 - When holding an information session for the volunteers, make sure that they know a little bit about each game and allow them to test all of the games so that they can accurately answer general questions while they are working in the booth.
- **Spread out the professors' shifts and try to encourage more faculty involvement in the event.**
 - Try not to schedule two professors for the same shift and make sure to keep up communication with faculty in order to convince more faculty members to participate in the event. Professors are an integral part of the booth and are able to answer questions that the average student may not be able to answer.
- **Get the television as high as possible.**
 - During the layout planning process, figure out a way to get the television as high up as possible. The higher the television is, the easier it is for people to see.

- **Consider a different color scheme for the shirts.**
 - The color scheme for the past few years for the shirts and buttons has been red and white. These colors match the school's which is why they were chosen, however, red shirts with white writing matches the uniform of the convention's enforcers. In order to stand out more clearly it may help to choose a color scheme that pops more.
- **The PAX pamphlet advertisement and the postcard should be the same and they should be started much earlier.**
 - Planning the different forms of advertisement for the program should start as early as possible. Proofread each form of advertising to ensure that you are sending the exact same message in each. Planning these will ensure plenty of time to proofread and get several approvals before the deadlines.
- **Make the information sign-up sheet more attractive to PAX goers.**
 - Make guests want to put their information on the sign-up sheets by having a fun game attached to it. Maybe have a prize wheel or a contest where you get entries by putting your information on the sheet.
- **Order more buttons than you think you will need.**
 - This year, 300 of the larger buttons with this year's booth logo (the controller) were ordered. We ran out of these buttons by Saturday morning at about 10:00 am. In order to ensure that the buttons last the weekend, order a much larger quantity. Alternatively, the larger buttons could be given away as prizes in a contest of some sort.

- **Ask the team members of the accepted projects to make an automatic trailer that plays during the menu.**
 - If the games are going to be shown live on the television in the booth, it would be beneficial to have multiple games with menu trailers that automatically play.

There was only one game that had this feature at the booth this year and when the booth traffic was slow, this game was hooked up to the television so that there was some gameplay for people who are walking by the booth to see.
- **Bring plenty of hand sanitizer and lotion.**
 - While it may not seem as important as the other suggestions, hand sanitizer is still useful to have in the booth. Being at PAX ensures that each worker will interact with hundreds of guests and the germs in this situation can take their toll. To ensure the comfort of all visitors and workers in the booth, we suggest that you bring a neutral, non-scented lotion to combat the drying properties of the sanitizer.
- **Track the attendance of the volunteers in the booth.**
 - We had a few cases of no-shows for shifts at the booth. Be sure to keep track of the volunteers and bring a print out of the schedule with you as you will be asked multiple times when one specific person is on shift.
- **Bring a trash receptacle.**
 - Trash piles up quickly in the booth and running to an offsite trash can every few minutes is not an ideal situation. Get a trash receptacle for the booth so that you can keep the booth as neat as possible.

- **Have a more approachable setup for any tabletop games, or do not have one at all.**
 - The tabletop game was a last minute addition to the booth this year and we could not fully plan for it due to this. If there is a plan to have a tabletop game, make sure that the table is comfortable to sit at and make sure that it doesn't take up too much room in the booth. The placement of the tabletop game this year was poor and it mostly took up room and provided a sitting place for people who were waiting for other games.
- **Bring informational packet for the Frontiers summer program and for any other k-12 programs that the school may be hosting.**
 - Several people asked about opportunities for children under college age to participate in throughout the year and most of the volunteers were poorly informed about these programs. Make sure to ask about any programs that the school is planning and bring informational packets to hand out to families with pre-college students.
- **Give the exhibitor passes to the volunteers who are helping to clean up the booth.**
 - This year it was suggested that the exhibitor passes be given to professors. This decision ended up being almost detrimental to the conclusion phase of the project. Only those with exhibitor passes may stay on the convention floor past the official end of the convention. This is to allow for cleanup of all the booths. Because the exhibitor passes were handed out to professors, we were not able to give them to the student volunteers who stayed to help clean the booth. The enforcers at the convention were instructed to escort those volunteers out of the building at it would have severely hindered the cleaning process. Thankfully, we were able to

convince the enforcers to allow the volunteers to stay but it was terribly inconvenient as one of the exhibitor passes needed to stay in the booth at all times.

- **Have a system in place to track the visitors in the booth.**
 - In the midst of the accelerated planning process for this year's convention, we overlooked the need for a visitor and involvement tracking system. Past years kept a paper tally of the active visitors in the booth (those who took part in an activity in the booth or oversaw someone who participated in an activity) and they tracked the number of participants for each game specifically. The practice of visitor tracking allows for a proper quantitative evaluation of the success of the booth.
- **Have a consistent theme throughout all parts of the booth.**
 - Plan the theme of the booth as early as possible so that the theme can be successfully incorporated into all of the advertisements used in the booth. Lack of a theme can lead to a disconnect between different portions of the booth developed at various stages of the of the project's completion.
- **Update the WPI IMGD PAX website page.**
 - There is a section of the WPI IMGD website that talks about the 2014 PAX booth and showcases the games that were to be shown in the booth (*PAX East*). It was not updated this year and it would be a good way to pre-PAX showcase the games that will be shown and generate excitement over the project.

Following some or all of these suggestions as well as incorporating steps highlighted earlier in this report will lead to a more successful PAX East booth.

7. Bibliography

- Aeroknights: Deathmatch - MQP Trailer (WIP) [Video File]. (2015). USA.
- Ansel, A., Benson, E., & Bujnevicie, T. (2014). The IMGD Booth at PAX East 2014.
- Best Career Placement – College Rankings. (2015). Retrieved April 12, 2015 from <http://www.princetonreview.com/college-rankings?rankings=best-career-placement>
- Brief History of PAX. (n.d.). Retrieved April 1, 2015 from <http://east.paxsite.com/what-is-pax>
- Harrington, L. (2012, November 6). WPI's IMGD program ranked among top in nation. *The Towers*. Retrieved April 2, 2015, from <http://towers.wpi.edu/read/3864/wpisquos-imgd-program-ranked-among-top-in-nation>
- Kennedy, C., Lukas, A., Miller, B., & Rice, C. (2013). The Ultimate IMGD Booth at PAX East 2013.
- Krahulik, M. (2009, December 23). PAX East! Retrieved April 30, 2015, from <http://www.penny-arcade.com/news/post/2009/12/23/pax-east1>
- O'Donnell, Dean. (2015, April 27). A Brief History of the IMGD Program [Personal Interview].
- Rice, C. (2014, November 19). Tips for Running the IMGD Booth at PAX East [Personal interview].
- PAX East. (2014, January 1). Retrieved April 29, 2015, from <http://www.wpi.edu/academics/imgd/paxeas29.html>
- Porell, Connor. *PAX IQP Budget Meeting with Marketing* [Meeting Minutes]. Meeting presented at Worcester Polytechnic Institute, Worcester, MA.
- The Story of the WPI Plan. (2011). Retrieved April 2, 2015 from <http://www.wpi.edu/academics/library/history/plan/>
- The Two Towers Tradition. (n.d.). Retrieved April 2, 2015 from <http://www.wpi.edu/academics/library/collections/two-towers.html>
- Top Undergraduate Schools for Video Game Design – College Rankings. (2015). Retrieved April 12, 2015 from <http://www.princetonreview.com/college-rankings?rankings=top-undergraduate-schools-for-video-game-design&page=2>

Twitter Analytics – Followers. (2015, January 1). Retrieved April 20, 2015, from https://analytics.twitter.com/accounts/18ce53yvuds/followers_dashboard

Wallick, K. (2014, December 16). Essentials for Running a Booth at PAX East [Telephone interview].

WPI Overview. (n.d.). Retrieved April 12, 2015 from <http://www.princetonreview.com/schools/1023881/college/worcester-polytechnic-institute#!academics>

WPI Ranks 6th on Princeton Review's List of Top 10 Game Design Programs. (2011, March 1). *WPI News*. Retrieved April 2, 2015, from <http://www.wpi.edu/news/20101/2011prgame.html>

WPI Undergraduate Catalog 2013-14. (2013). Retrieved April 12, 2015 from <http://www.wpi.edu/Images/CMS/Pubs-Catalogs-Ugrad/WPI-UGCat2013-14FINAL.pdf>