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Hampshire College Arcade

Reflection: Fall 2012

This semester tested my resolve and my ability to manage time. A series of personal problems coupled with a challenging courseload and I felt exceptionally frustrated that the arcade project remained purely theoretical. However, at the end of the semester we began to experience breakthroughs that signal a new page for the project and give me a great deal of satisfaction.

As a signer for Silicon Frogs Game Development, I used the group as an opportunity to build excitement and interest among prospective future maintainers. Unfortunately, I was unable to make the arcade a central part of the student group as time and energy were being constantly diverted to other projects – a source of frustration for both myself and, I suspect, my partner, Breton.

One of the main issues in the project was timing: we spent far too much time and energy on the already-covered ground of governance and computer tech, avoiding any deliberate design specs or models until late. In the future, ability to differentiate between mountains and molehills and divert energy to overcoming the more serious obstacles will be a key skill – I'm pleased that my initial project completion plan contained some measures to force us to address these topics and will continue designing my independent activities using frameworks like this one.

During one particularly crucial meeting with a representative of Campus Leadership and Activities, I was presented with the most important suggestion the arcade has faced for some time: making the machine table-mounted and portable, thus removing the need to secure permission for a space before constructing the machine. This will lower project costs, runs around one of our major unresolved issues, and made it possible for me to create my final product: a model of the arcade machine and estimates for the cabinet hardware requirements.

For several days I was struggling with the issue of form factor and ergonomics – not all people are the same heights and it's important that a table-mounted system by friendly to people of many different shapes and sizes – before I realized it's possible to use an adjustable (and exposed) monitor partially built into the main system box, which would contain the arcade guts and the controllers. I created a model of this using the Blender animation and modeling program. A description of the new arcade is below:

> Computer device and connected monitor
→ internal audio/speakers
> Control Scheme
→ USB Joystick
→ MakeyMakey-powered custom buttons
> Power Strip / Surge Protector
> Case
→ sub-boxes:
---- main internal – 8” h 1' w 18” l
---- control surface:
------ bottom 18” w, 6” l, parallel to table

------ front panel 3” h, 18” w, right angle to table
------ top panel 6” l, 18” base width, 1' top width, perpendicular to table – this is where the joysticks and buttons go
------ side panels: two 3 x 6 rectangles and two 5 x 6 triangles

Additional internal woodwork might be necessary (to hold pieces in place), but could probably be done with scraps of wood and other trivial items for a negligible cost.

Possessing exact dimensions for an adjustable system is a major step for budgeting the project. In addition, the project is now small enough to move but big enough to be modifiable. The project is in a good position to begin the building process.