

Networked Objects

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Playing Games - The Pair Project

This week we take on our first assignment, the Pair project. Due to the odd number of people in the class, there will be one group of three. The assignment is only a week long, so we'll be working within the scope of an overall theme: Playing Games.

The goal of the Pair assignment is to create a "networked" game that allows two (or three) players to interact with a web page or Processing applet (or Flash, if you choose) using input collected by the XPort boards. Let's look at a simple example: Pong.

The setup for a Pong like game might use two XPort boards, each with a single potentiometer connected. Our PIC would periodically get the ADC value of the potentiometer, which it would then send to a script sitting on the Stage server (See the XPort_Hello code for an example). This script would record the most recent values for either player. We would then create a Processing applet that requested the most recent player values from the script, and showed two paddles on screen, whose vertical positions are dictated by the values coming from the potentiometers.

Scope

The game you create (and you're welcome to try the Pong example) should be fairly simple, yet still strive to be compelling. Each "controller" should have no more than four buttons or potentiometers. Try and create an interaction that is understandable to the player. The visual result running on the web doesn't need to be highly designed, boxes, shapes and color are quite enough, but it should get across the point of the game.

Playing Our Games

To play our games we'll be using the following setup:

- One webpage being shown on the projector for everyone to see.
- Two (or three) controllers connected to a router in the middle of the classroom.

We'll look at all of the games, and give people a chance to play each game. In the end this is about designing interesting networked interactions.

Documentation

Each person is required to participate in the creation of the project, and each person needs to keep notes on the creation of the project, from brainstorming to design and implementation. The day of class that we present our games, each person should have their documentation posted on their journal. The documentation doesn't need to be a huge paper, but it should cover all aspects of the process. One page is too short, ten pages too long.