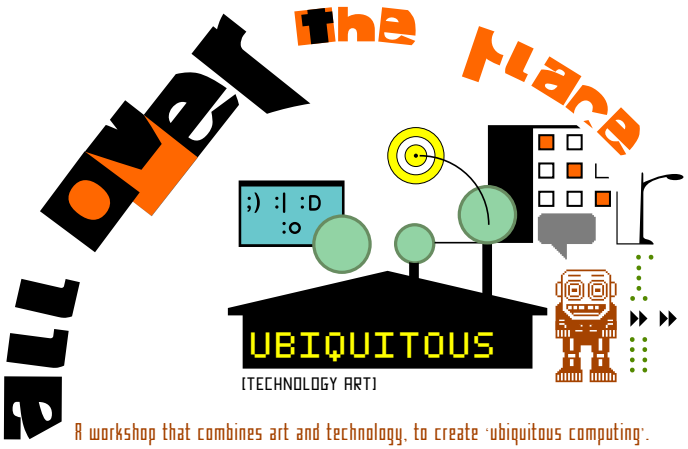

A workshop that combines art and technology, to create 'ubiquitous computing'.

lesson 3: translation
[scribbler robot with light]

Translation

'Translation' is a little bit different than 'transfer'. When you translate, you communicate, you give instructions, so that technology can do something that you want it to do. For example, when you want a computer to show the letter 'A' on a screen, you type the letter 'A' on a keyboard (the keyboard is used to translate the push of a key into the image of the letter 'A'). We will do many of our translations with robots, because they make interesting translations. In this exercise we'll start with a Scribbler Robot. A Scribbler Robot is made by the same people who make Basic Stamps, and has a Basic-Stamp brain. It's made for drawing lines with markers on paper. You can program it to draw in different ways (it can follow dark lines, or program instructions, or a bright light). Today we will start by making it follow the light of a flashlight.

Scribbler Robot with Light

The robot is already programmed to follow a bright light, so the important thing here is using a bright light to make it draw what you want it to draw. In a dark room, we will take turns making the robot follow a flashlight by using its 3 light sensors (light sensors are what tell the robot's computer brain where it can find a bright light). It will be difficult to make the robot draw exactly what you want, because it has big wheels, and sometimes it loses track of the flashlight, so it's your job to make it go where you want it to go, but don't be frustrated if the drawing looks weird (people like weird drawings).

Art

Today we will lead the Scribbler Robot on top of 4 large pieces of paper, in order to draw one large tree (sort of basic: leaves on one side, and a trunk on the other). There is already a basic drawing of a tree in pencil, that you can use to guide the robot. The robot's drawing will probably not look very much like a tree, since it's not very precise, and because many of you will take turns drawing all over the place. We can help make it more like a tree if we draw swirly leaf-like lines on one side, and long straigh trunk-like lines on the other. Later, we will make the drawing look more like a tree by two methods: 1. re-shaping the robot lines, 2. adding new shapes. Then we will cut the drawing into smaller pieces so that everyone gets one, and everyone will add even more shapes, inspired by La Academia. Finally, we will put the tree together again and redraw some parts that don't fit very well. Note: You can only use black and silver ink.

Eden Gardens

In this exercise we continue with the idea of 'family trees' (see lesson-2 to find out why family trees are an important part of Eden Gardens). The final drawing will be one big tree. Another thing that is important for us in Eden Gardens, of course, is our learning center, La Academia. So, when we draw the final parts of the tree, we will make it look like the logo for La Academia. So our final drawing will be a kind of poster for La Academia. Be sure to use names of members of La Academia in the tree, and use the shapes that you see in the logo (nice clean circles, technology popping all over, the 'robot-bug', children and feet of children, a satellite in the sky....). Remember, you can only use black or silver ink: no other colors, please.