



Original CLOUD sculpture at Nuit Blanche Calgary. Photo: Doug Wong

Physical computing with arduino

Design 4650/5650 Collaborative Studio

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In this Collaborative Studio course, students will learn how to use micro controllers, sensors, lights, sounds and kinetic components to create interactive installations and live experiences.

This studio investigates creative possibilities in physical computing, from interactive installations to autonomous feedback systems. Students are expected to learn about the capabilities and limitations of physical computing, understanding the possibilities and technical constraints in designing a interactive experience. Students will also be equipped with the ability to rapidly build functioning prototypes for their future design practice.

In the course of the class, students will work in small groups and learn about coding for micro controller, a variety of sensors to capture changes in the environment, output devices such as led, buzzers and motors, and also connectivity with computer programs to create interactive sound and graphic systems.

In the end of the semester, students will create an interactive experience as a whole class, with each small group collaborate and contribute different elements (sound, light, graphics, kinetics) to the experience.