Research-Creation Skills Workshops

at the Critical Media Lab

Learn how to incorporate experimental digital media projects into your research practice.

Introduction to Arduino Microcontrollers

Saturday, March 9
9:30 a.m. – 2:30 p.m.

Introduction to the Processing Language and Development Environment

Saturday, March 23
9:30 a.m. – 2:30 p.m.

Critical Media Lab
158 King St. W., Kitchener, ON

To register, email **dstock@uwaterloo.ca** by March 6.

For more information, please visit:

criticalmedia.uwaterloo.ca

Intro. to Arduino Microcontrollers

Saturday, March 9, 9:30 a.m. – 2:30 p.m.

Focus and format: The focus of this workshop is to teach the basics of working with an Arduino micro-controller. Attendees will learn how to control LEDs and electric motors as well as read the output of sensors such as variable resistors and buttons. Through a series of mini-projects, participants will learn how to interact with the different functions of the Arduino. Each project will focus on both the software and hardware part of working with the different functions of the Arduino. The final project will encompass all the features covered to produce a more complex interactive experience.

Learning goals: The goal of this workshop is to introduce and familiarize attendees with the basics of Arduino. In the end, participants will have a better understanding of how hardware and software can work together and hopefully open their minds to the infinite possibilities for projects and creations.

Target audience: This workshop is aimed at beginners but we encourage participants to read the Arduino Getting Started guide here: http://arduino.cc/en/Guide/HomePage

Prerequisites: Attendees should also come with the latest version of the Arduino development environment installed on their computer. The installation file can be downloaded here: http://arduino.cc/en/Main/Software. It is highly recommended to look at the Bare Minimum code tutorial and understand what each section of the code does. This document can be found here: http://arduino.cc/en/Tutorial/BareMinimum

Intro. to the Processing Language & Development Environment

Saturday, March 23, 9:30 a.m. – 2:30 p.m.

"Processing is a programming language, development environment, and online community that since 2001 has promoted software literacy within the visual arts. Initially created to serve as a software sketchbook and to teach fundamentals of computer programming within a visual context, Processing quickly developed into a tool for creating finished professional work as well" (from http://processing.org/about/).

Focus and format: This workshop will be an introduction to Processing through a series of hands-on activities that will demonstrate fundamental aspects of the language and environment.

Learning goals: The goal of the workshop will be to develop facility with Processing and to encourage experimentation and further self-guided learning. Attendees may discover possible ways in which Processing can be used in their own work.

Target audience: Although this workshop will be geared toward complete beginners, attendees may wish to familiarize themselves with some aspects of the Processing language by exploring this page: http://processing.org/reference/

Prerequisites: Attendees of this workshop should download Processing and ensure it is operable prior to the workshop. Processing is available here: http://processing.org/download/