Arduino Workshop: Course Outline

KYLE'S INFO:

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COURSE SCHEDULE:

Jan. 15th - Feb 26th
Wednesday, 6-9pm

COURSE DESCRIPTION:

This introductory course is an introduction to working with micro-controllers and programming in Arduino. Students will be able to take the skills gained in the course and apply them to a wide range of physical computing applications including interactive sensor-based systems, reactive lighting using LED technology, and kinetic sculptures using a variety of motors.

The course will focus on helping each student to develop their own projects through hands-on workshopping and in-class practice. The course culminates in a public showcase where students have the opportunity to show their work as installations, performances, or even collaborations with other dadageek students.

COURSE WEBSITE:
In class examples and additional information will be added each week to the class website:
KyleEllisEvans.com/arduino

COURSE OUTLINE:

- **Week 1 – The Basics**
  - Micro-controller introduction and basic terminology
  - Arduino IDE basics
  - Soldering Introduction and components

- **Week 2 – Opto-electronics**
  - RGB LED Strips
  - Light Sensors

- **Week 3 – Motors and Relays**
  - Servo motors
  - Relay switches

- **Week 4 – Sensors**
  - Touch Sensing
  - Proximity sensors
  - Gyroscopes

- **Week 5 – MIDI Controllers**
  - Analog and digital input
  - Using sensors with MIDI

- **Week 6 – Sensors Cont.**
  - More Sensors!
  - LCD Screens

- **Week 7 – Workshopping Exhibition Projects**