

AD32600 Physical Computing  
Prof. Fabian Winkler  
Fall 2016

### **Arduino+Processing** (due: 11/30/2016)

For the last project in this semester I give you two options to choose from:

**Option 1:** Choose one of the first three projects you have worked on in this class and significantly improve it.

**Option 2:** Create a work that is based on the integration of Processing and Arduino. Such a system will allow you to work with sensor data from the physical world in Processing and/or use Processing-based computer vision or sound analysis to drive actuators (such as motors, fans or LEDs). As with project 03 it will be important that your work expresses a strong concept and that the physical design of the work is well developed.

Please submit a short (100–300 word) project description with the work. This statement should address the following questions: what is the work about? What was it inspired by/what is the context in which to see it work? What should the audience ideally take away from the experience of your work?

Also, the documentation requirements for this work are:

- three full resolution still images (1200x1600 pixels min.), if possible (and applicable) one system diagram
- explanatory HD resolution (1080i or 1080p, mp4 H.264 compressed) video (2 minutes max.)
- 100–300 word project description

Ideally, work that you are creating for this assignment should be far enough along and at a stage where you could submit it to a national/international call for new media art/design work. I have listed a few below that you should consider submitting to:

CHI 2017: <https://chi2017.acm.org/interactivity.html> (see “demonstrations” track, deadline: January 11, 2017)

SIGGRAPH 2017, see especially the Research > Art Papers or Experiences > Studio tracks: <http://s2017.siggraph.org/call-submissions> (deadlines in late January 2017). Finally, the website of the New Media Caucus has a good collection of calls for exhibitions, festivals and job postings related to new media art: <http://www.newmediacaucus.org/calls/>, so does the “Community” section of the [rhizome.org](http://rhizome.org) website: <http://rhizome.org/community/>.

## Artists/Artworks

In addition to the artist and artworks introduced in the syllabus and in the description of project 03, see the following works:

Romy Achituv & Camille Utterback, *Text Rain*, 1999

<http://camilleutterback.com/projects/text-rain/>

Ars Electronica, *Radical Atoms* exhibition, 2016

<http://www.aec.at/radicalatoms/en/radical-atoms-exhibition/>

Ars Electronica, *Alchemists of our Time* exhibition, 2016

<http://www.aec.at/radicalatoms/en/radical-atoms-exhibition/>

David Bowen, *Fly Tweet*, 2012

<http://www.dwbowen.com/flytweet/>

everyware.kr (Hyunwoo Bang and Yunsil Heo), *Oasis*, 2008

<http://everyware.kr/home/?portfolio=oasis>

Osman Khan and Daniel Sauter, *We Interrupt Our Regularly Scheduled Program*, 2003

[http://danielsauter.com/display.php?project\\_id=10](http://danielsauter.com/display.php?project_id=10)

Zimoun, works

<http://www.zimoun.net>

## Readings

In addition to the readings for project 03, useful reading sources for this project include:

Golan Levin, "Computer Vision for Artists and Designers: Pedagogic Tools and Techniques for Novice Programmers":

[http://www.flong.com/texts/essays/essay\\_cvad/](http://www.flong.com/texts/essays/essay_cvad/). Golan's examples discussed in this text have all been incorporated into Processing 3's examples section, see: File > Examples > Libraries > Video > Capture