

Make, Map, Blink: Creating Data-Driven Projects for the Internet and the Physical World
Fall 2014

Course Timeline:

Class 1

LED throwies

Pin maps

Class 2

The cupboard: Places for your stuff

- Tumblr
- git pages
- domain name
- get arduinos

Conductive dough

Choropleth maps

- evacuation map
- Germans in the us

Class 3

Intro to Arduino

- Blink

PIP with cartodb

- pre-k

Class 4

Sensing with Arduino

- Make a working reference card for sensors
- Build a light sense -> show the values in the serial monitor

Mapping Big Data

- Points-in-polygons with QGIS
- projections
- taxi rides

Class 5

Making homemade sensors with cool materials

- stretchy wire + LED
- welcome mat
- folding sensor

Crafting Beautiful Maps

- Tile-based
- Mapbox
- Taxi data

Class 6

Introduction to Soft Circuits (wearables)

- Twinkle
- demo Bluetooth

Turning data into online charts

- 90° days
- use highcharts
- all in jsfiddle

Class 7

Feeding data from sensors onto the web

- feed data to data.sparkfun

APIs:

- getting data out of other computers
- nytimes congressional api
- show data.sparkfun
- weather.io

Class 8

LED lightstrips

- Building multicolored objects that respond to data

APIs (continued):

- What's possible with the Twitter API

Class 9

Blending lightstrips + live data (tethered)

- distance
- twitter

Intro to scraping

- uses for journalism
- awesome scraping tools
- writing your own

Class 10

We love Bots

- how code "robots" can watch things for you
- doing journalism with bot data

Class 11

Servos - turning data into motion

- another reference card
- demo

If this than that

- tweet -> read later
- checkins-google spreadsheet
- temperature -> email

Class 12

Internet of Things

- Tweet bell
- Ice Cream Bot