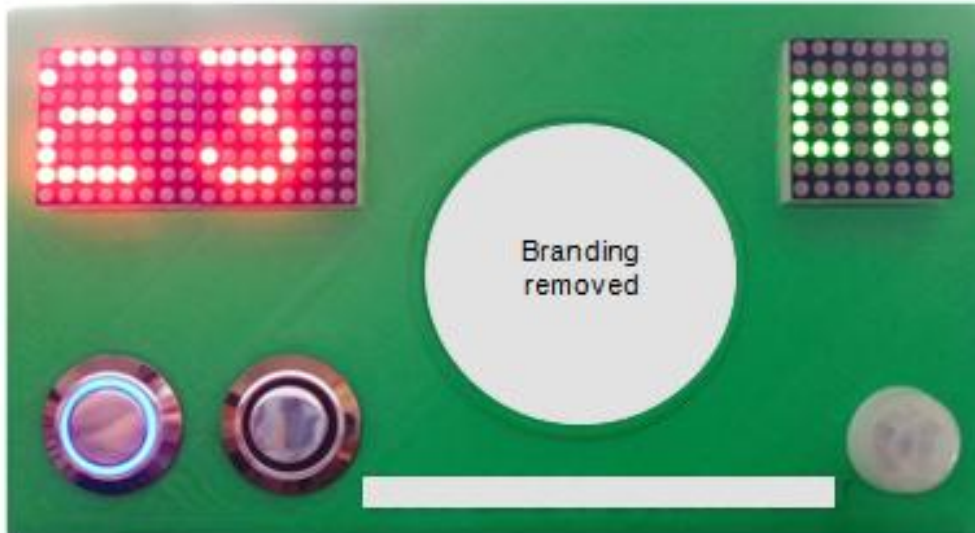


Prototyping challenge

Smart thermostat

Today's challenge: Build a "smart" thermostat prototype



Key features

"Dumb" thermostat

- Read room's temperature
- Sets desired temperature

Wi-Fi Controllable

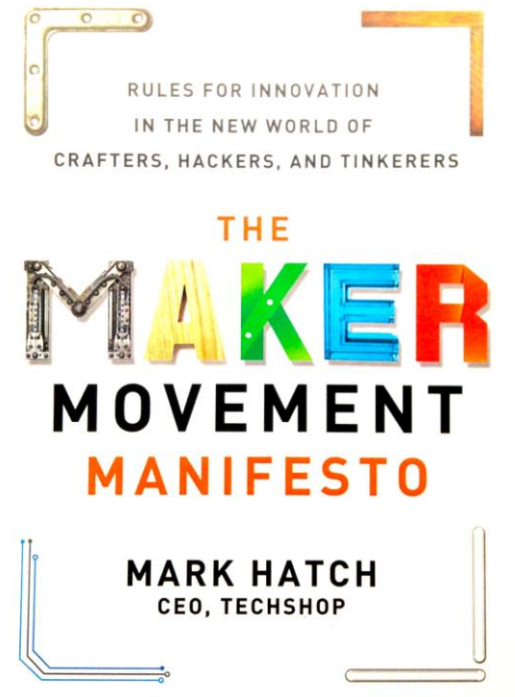
- Mobile controllable (read, set)

"Smart" features

- Detect in-room motion

Challenge highlights growing publicity of "Maker Movement" and its potential to disrupt

- Community of technology-centric DIYers emphasizing learning through doing, peer-to-peer instruction, and self-fulfillment



Low-cost open-source hardware have enabled large communities of "makers"

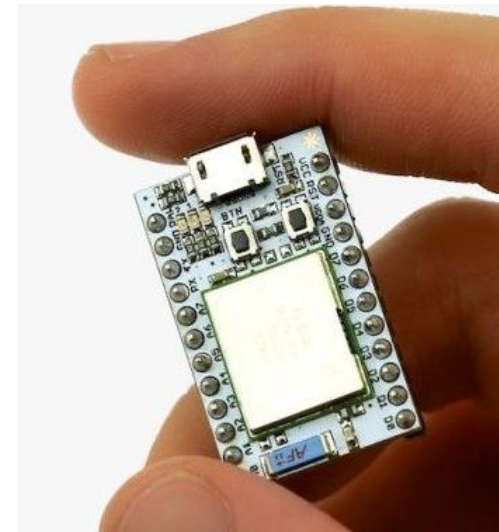
Arduino

- Single board microcontroller, introduced in 2005
- Open source hardware
- ~700K units produced to date
- Cost ~\$30 / board



Spark Core

- Updated chip + built-in Wi-Fi w/ cloud development suite
- Kickstarter funded 2013
- Open source hardware
- Cost ~\$40 / board



OS-Hardware connects w/ available components

Spark Wireless motion detector



Spark solar powered security camera



OS-Hardware allows for MVP market validation

Pebble prototyped smartwatch w/ Arduino, prior to \$10M Kickstarter funding



66,555

BACKERS

\$10,168,356

PLEDGED OF \$100,000 GOAL

8

DAYS TO GO

THIS PROJECT WILL BE FUNDED ON FRIDAY
MAY 18, 11:00PM EDT.

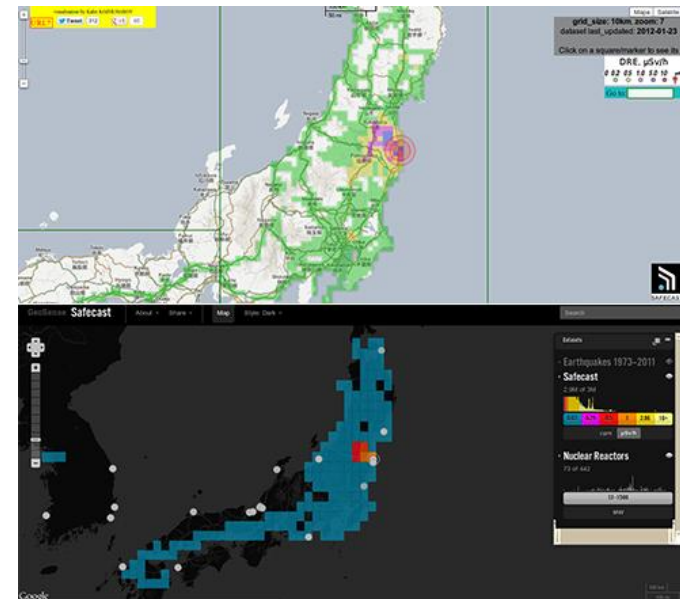
OS-Hardware allows for rapid product deployment

Networked Geiger-counters rapidly developed & deployed following Fukushima disaster

Arduino-based Geiger counter

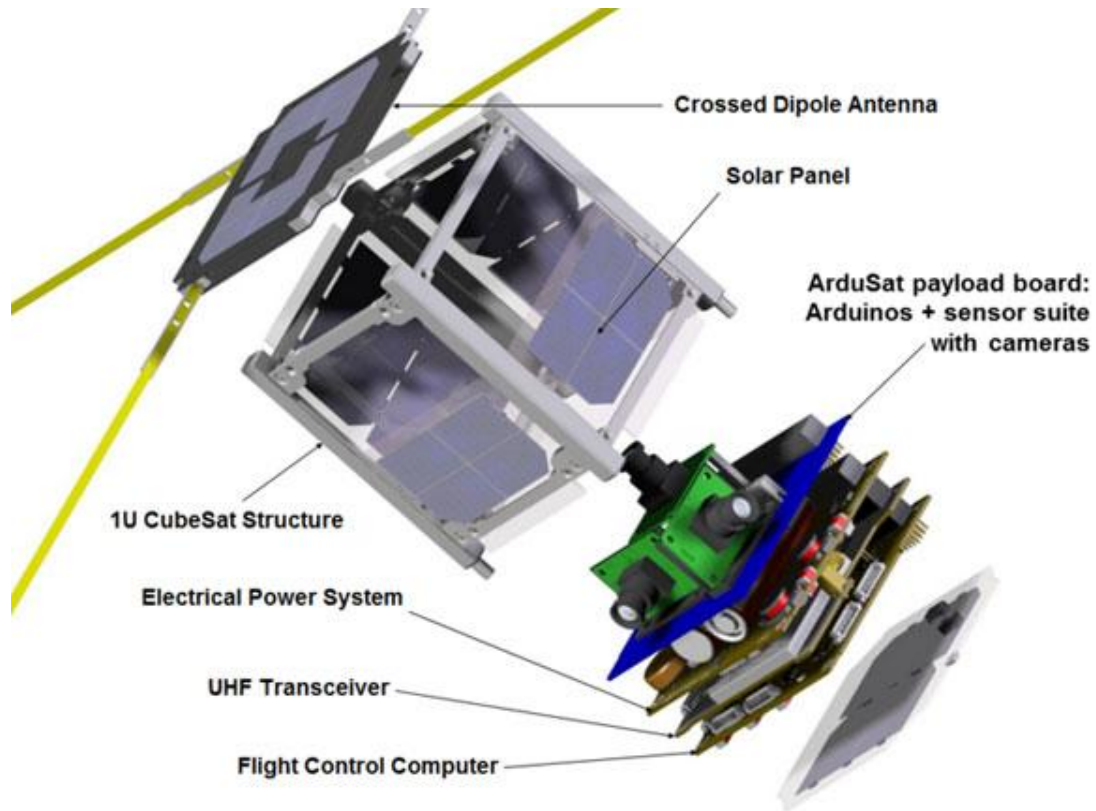


Real-time sensor network (post-Fukushima disaster)



OS-Hardware lowers barriers on high-end R&D

ARDUSAT Arduino-based satellite for community use



OS-Hardware supports high levels of innovation

"Botanically" Plants tweet when thirsty



"Kickbee" A tweet for every kick



kickbee @kickbee · 18 Dec 2008

I kicked Mommy at 08:52PM on Thu, Dec 18!



Today's challenge: Assemble prototype

Teams of 10, sub-divides into Hardware, Software teams

- Hardware, Software teams responsible for creating functioning prototype

Team seating arrangement

1	7	13	20
...
6	12	19	24

2 Hours to complete assembly

- Team of helpers available to assist you

Dashboard projected in room will track progress and rank teams throughout