Hackerspaces as Innovation Incubators

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What is a hackerspace?

- From hackerspaces.org:
  - “Hackerspaces are community-operated physical places, where people can meet and work on their projects.”
- Hackerspace predecessors existed in history as the side affects of research and buildings
  - Brookhaven National Laboratory (1950s)
  - Xerox PARC (1970s)
  - MIT Media Lab (1990s)
  - NYU Tisch ITP (2010s)

What is a hackerspace?

- IRL is more useful than IRC
  - People can collaborate in real-time, face-to-face and more effectively communicate and collaborate
  - Hardware projects can be created with multiple people, increasing the scale of what can be built and how fast it f nishes
- Research for fun
  - No specif c mandate for any particular focus from any government, corporation, or academic institution
  - Projects form around the voluntary collaboration of groups in the space with a common interest or goal

The advantage of a hackerspace over a similar space built for a specif c mandate is the same advantage Free Software has: Freedom.

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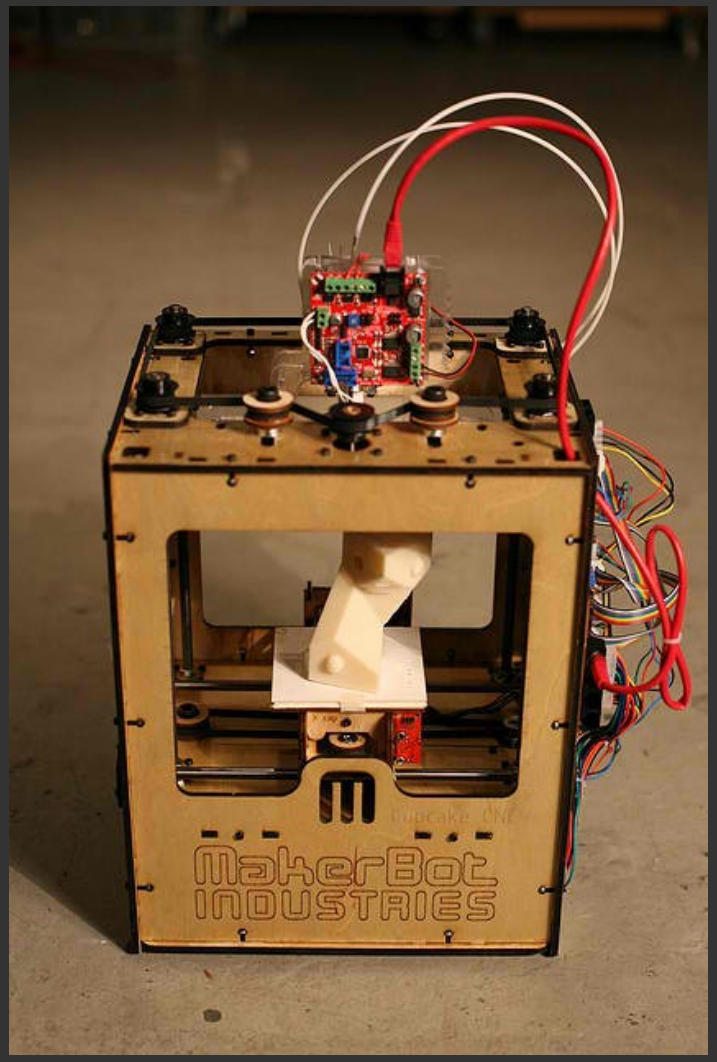
Notable Projects

Makerbot

- Made at NYC Resistor
- A low-cost, open-source 3D printer for the masses
- Software is based on open-source RepRap 3D printer, created in Bath, UK
- Photo by Bre Pettis (CC BY-NC 2.0)
- http://makerbot.com



Notable Projects

RFID Door Access

- Made at Hacklab Toronto
- Also used by ATX hackerspace in Austin
- Open source RFID system for hackerspace access
- Photo by Leigh Honeywell (CC BY-NC-SA 2.0)
- http://hacklab.to

Notable Projects

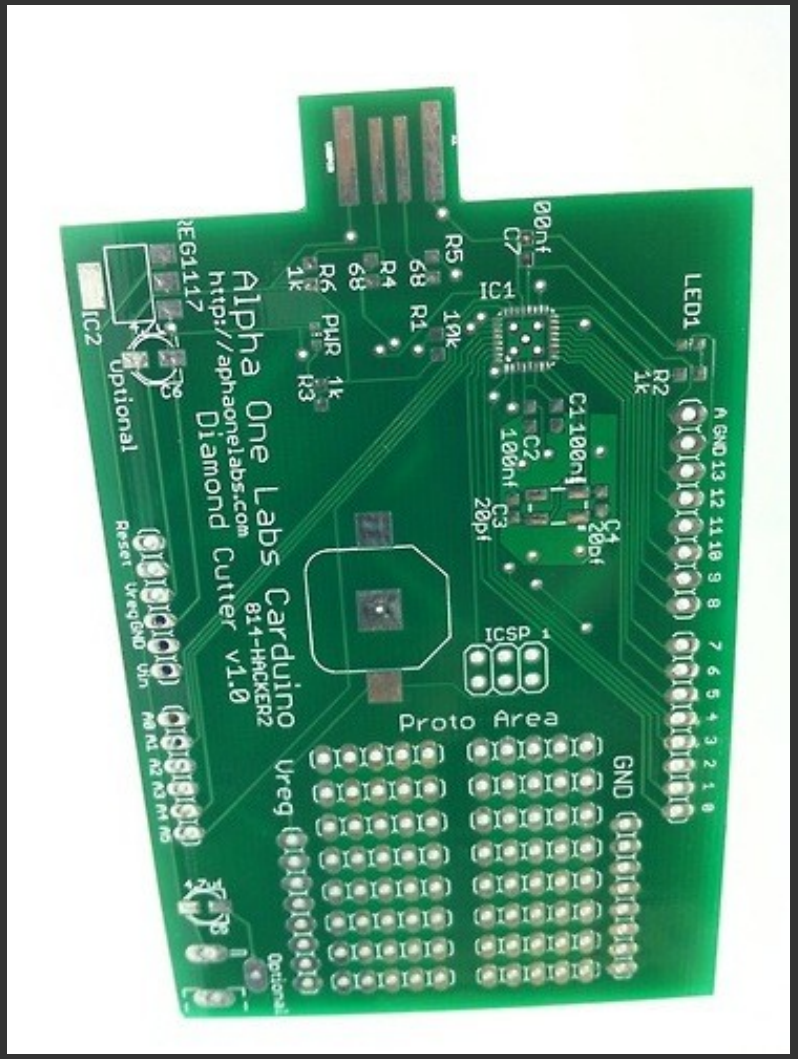
HeatSync SEM

- Created [in due time] at HeatSync Labs
- DIY, open-source scanning electron microscope
- ~85% of $70K scope usefulness
- Photo by Jasper Nance (CC BY-NC-ND 2.0)
- http://wiki.heatsynclabs.org/wiki/SEM_Microscopy

Notable Projects

Carduino

- Created at Alpha One Labs
- Based on the Arduino microcontroller platform
- Modif ed (forked) to need less plastic things
- Photo by Alpha One Labs
- http://www.alphaonelabs.com/carduino/



How stuff happens in a hackerspace

- Hacker soup
  - Physical resources/tools
  - Resourceful people
  - Easy access to both of those
  - Chaos

How stuff happens in a hackerspace

- Stages of a hackerspace project
  - Scenario 1
    - Someone says “the group” should make x, project dies of *Cool Story Bro* syndrome
  - Scenario 2
    - Someone announced they are making something awesome, invites people to join
    - People voluntarily pool together funds or seek outside funds to buy parts, pizza
    - Volunteers argue over design patterns, end up picking whatever design happens to get everyone interested enough to build it
    - Someone with a camera takes pics because it happened and they end up on Make blog, Boing Boing, Hack A Day and hits the Digg homepage a week later.

BUILD
SOMETHING
AWESOME

?