



The Humboldt Fab Lab

Bringing Ideas to Reality

The Humboldt Fab Lab Organization

a proposed non profit firm founded to assemble, maintain, promote and enhance the fab lab as a valued asset to the Community, Humboldt County and the world.

SERVICES

- A. Digital Fabrication Education
- B. Lab Time
- C. Small company R & D welcomed so long as they follow the Fab Lab Charter*

MARKETING

Bring your ideas to reality at the Fab Lab.

- A. Awareness building via Events
 - 1. Plaza Customizing (during farmer's market)*
 - 2. Design Competitions
 - 3. Hackfests
 - 4. Recycle ReDesign
 - 5. Make a Gift
 - 6. Easter Egg Design Competition
 - 7. School Presentations
 - 8. Mother's Day/ Father's Day etc.
- B. Awareness building via high profile projects
 - 1. Fab made Milling machines
 - 2. Maker bots (Giant Maker Bot variant)
 - 3. Rep-Raps
 - 4. Laser Projectors
 - 5. LabFi
- C. Promotion Through Partnerships
 - 1. CCAT keeping the existence of the lab in the minds
 - 2. IT Club
 - 3. Computer Science Club?
- D. Solutions for Local Problems
- E. Standard On-Line Campaign via social networks etc.
- F. stream the lab online
- G. Lab Vlog
- H. Edu8 local Community TV

COMPETITION

- A. Current Prototyping and small workshop needs
 - 1. Traditionally owned by institutions and companies that restrict access.
 - 2. Non Freely accessible High End Prototyping Equipment
- B. Since 2002 Fab Labs have shown that communities want to be able to 'make' things. Empowering people to do so is part of why there are now 41 labs world wide.

TARGET MARKETS

The Humboldt Fab Lab provides Humboldt County with a place to prototype ideas learn digital fabrication and solve local problems.

- A. Researchers
 - 1. Sensors, Data Recording and Measuring Devices for Research
 - 2. Conservation efforts
 - 3. Application of Appropriate Technology to help manage ecology and Humboldt's natural Resources etc.
- B. Artists (Bring Creations to life)
- C. Inventors
 - 1. Prototype ideas rapidly and more cost effectively than via tele-production methods
- D. Entrepreneurs
 - 1. Small Company R & D
 - 2. Lowering the cost to develop new and innovated solutions to problems
- E. Hobbyists
 - 1. The Fab Lab is a place in tune with the Hacker Spaces movement
 - 2. It serves as the epicenter for bring Humboldt County fully into the digital fabrication revolution and the coming paradigm shift.
- F. Students
 - 1. College, Community and High School Students
 - 2. Schools can make learning with the lab a part of hands on curriculum
- G. misc. Problems to Solve List Items*

MANAGEMENT

- A. Lab Managers
- B. Lab Techs
- C. Board of Directors

OPERATIONS

- A. Lab Open Hours
- B. Workshops
 - 1. "How to Make Almost Anything" MIT Open Courseware
 - 2. Teleconferences with other labs
- C. Events
 - 1. Plaza Customizing (during farmer's market)*
 - 2. Design Competitions
 - 3. Hackfests
 - 4. Recycle ReDesign
 - 5. Make a Gift
 - 6. Easter Egg Design Competition
 - 7. School Presentations

- D. Location:(South G Street) Bayview Industrial Center
\$1000/month (1600 sq ft)

TECHNOLOGY

A Fab Lab is...

a collection of high end computer controlled rapid prototyping equipment for the fabrication of almost anything. The lab is organized as a kind of community workshop where participants learn about science and engineering hands on and through formal and informal workshops.

*"Fab labs have spread from inner-city Boston to rural India, from South Africa to the North of Norway. **Activities in fab labs range from technological empowerment to peer-to-peer project-based technical training to local problem-solving to small-scale high-tech business incubation to grass-roots research.** Projects being developed and produced in fab labs include solar and wind-powered turbines, thin-client computers and wireless data networks, analytical instrumentation for agriculture and healthcare, custom housing, and rapid-prototyping of rapid-prototyping machines. "*
(fab.cba.mit.edu/about/faq/)

"This fab lab is a continuation of a program started in 2002 by the Massachusetts Institute of Technology's (MIT) Center for Bits and Atoms (CBA). Currently there are nearly 40 such labs in 11 countries interconnected by internet and broadband videoconference."

B. EQUIPMENT

Laser Cutter, shopbot, milling machine, vinyl sign cutter that can also print circuit boards.

The lab will be able to create some extra tools such as a 3D printers, alternative circuit milling machines etc.

C. See Inventory on First year Budget*

FINANCIALS

- A. First year Start Up Budget
- B. Pro Forma Cash Flow Analysis
 - Startup Cost: \$200,000
 - Annual Expenses: \$50,000

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- Membership
- Donations
- Fundraising jobs
- Sponsored Products
- Fulfilling Online Orders
- Events
- Workshops
- Materials
- Sale of user projects*

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- Staff
- Insurance equipment
- Liability Insurance
- Materials
- Utilities (net/water/power/heat/phone)
- Tax

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Break Even at \$5000.00/month
or \$170.00/day

FUNDS SOUGHT

- A. \$200,000 Start Up and First Year
- B. Aiming to be Self Sustaining 1 to 2 years after launch
 - 1. Annual \$50,000 operational costs
 - a. \$36,000 2 Full time Staff
 - b. \$12,000 Rent
 - c. \$2000 Utilities*
- C. Fund Utilization (See First Year Fab Lab Budget)
- D. We are currently seeking sponsorship and support from all available sources including:
 - National Science Foundation (NSF)*
 - Arcata City Hall
 - Eureka city hall
 - Humboldt Area Fund (HAF)
 - The Arcata Foundation
 - Private Businesses
 - Other Organizations
 - and all Interested Individuals

We seek partnerships with schools, college's and companies whom see the value and will directly benefit from bringing a lab to Humboldt County.