

BACULUS HIRING COLLABORATORS

I'm looking to hire two collaborators to help me build a prototype for **baculus**. We received an honorable mention from the design phase of the **Mozilla Wins Challenge**, and are continuing to apply to the Prototype Phase.

I currently am working with **Ariel Cotton**, a designer based in NYC and Berlin, and **David Huerta**, a frontend developer and digital security trainer at the freedom of the press foundation. The project is highly collaborative and hands-on.

Goals

By June 14th, I'd like to:

- create 3 backpacks, with all the hardware and software needed to communicate 'offline'
- simulate and test a disaster where nodes go down in prospect park and red hook
- document the build process
- test battery life, propagation speed, distance of different solutions
- user test and decide on an initial set of software to use (off the shelf or modified)

All hardware, software, designs, will be developed in the open, and published CC0 or whatever appropriate open source licenses we can release them under.

Technologies we are using right now:

- **hardware** raspberry pi, arduino, limesdr, ubiquiti, esp32
- **software** gnuradio, mesh networks, ifs, dat, scuttlebutt, javascript, bash
- **networks** wifi, satellite, GSM, LTE

Roles

All the roles here are just ideas of the kind of person who might be excited to work on the project - if you are at all interested but don't fit one of these molds, please apply!

system hacker

- build reproduceable image for single board computer (likely raspberry pi/beaglebone)
- write tools to interface with iridium satellite network (likely gnuradio)
- create reproduceable images and config for mesh network (likely nycmesh/ubiquiti)
- evaluation and testing of network connectivity in prospect park / red hook

data hacker

- evaluation of backend offline-first data sync tech (ipfs, dat, scuttlebutt, sharedb, ???)
- evaluation of offline-first community-supporting tools (message board, maps)
- creation of dashboard/map-view for responder needs during disaster recovery
- design of hardware interface for wayfinding (micro controller dowsing rod?)

hardware hacker

- battery life testing & optimization
- distance performance testing
- text messaging application development (likely gnuradio + dumbstore)

Compensation

The total budget for the project is \$10,000, split amongst all roles. Compensation will be provided in USD or ETH, negotiable as a day rate or flat fee for deliverables. In the spirit of transparency we will publish our financials openly.