## Text Walkie-talkie

## Very High Level Concept

* Walkie-talkie style, text-only radio
* Similar to cell phone: Handheld, Keyboard and screen, battery operated
* Short 100 char text messages only
* Short range only, not compatible with Internet or cell providers
* No security, similar to public Walkie-Talkie band
* Cheap
* Build your own, Do it yourself
* Open-source hardware and software

## Use Scenarios

### Electronics Geeks

Build it for fun and share the experience with friends.

### Remote Science

A $1000 donated package with instructions and components could be sent to a scientist in Africa and they could build 20 radios which could help their research communication. A central high-power repeater could be added to the network, implemented by a local scientist without purchasing expensive commercial cell systems.

### Slum Kids

Picture kids in a Mumbai or Mexico slum that don’t have access to Internet at home or cell phones. There are many poor kids in the US in this situation. Their only remote communication means is school or a cheap local Internet Café for 40 cents per hour. They have no free way to communicate with their neighbors from home or while on a bus perhaps. This device could be donated by the rich. For instance a science teacher visits a slum and makes a relationship with some students, the teacher could show them how to build the device, leave or ship them some components, and the kids could build their own free radio network.

### Stealth Repeater Mode

Some places in the world don’t have Internet access on purpose. Governments, Corporations, and Families want to limit public communication like postal mail, cell phone, and radio use.

* The Text Walkie-talkie could be placed in receive only mode by the user and store up new user texts in an Outbox.
* The user could decide when it’s safe to press Send to send multiple texts at once. This means they could receive and compose safely at home, but transmit their 10 messages in 2 seconds covertly and anonymously from a crowded city market. The Government can’t track down who sent messages that short, but can track cell signals. No device address would be present on the signal to be tracked.
* The public received texts could be repeated to other users in the same 2 second transmit cycle, creating a mini-internet like experience. If multiple people were transmitting 2 second messages in a crowded market for instance and moving, it would be impossible to find and stop them from doing so.
* Cheap radios like this could be purchased or built by non-profit support groups and smuggled into unauthorized territory.

## Radio Bands

Since its open-source and open-design hardware, the radio component can be modified by anyone.

* US Legal Bands: