lifeLogger
never forget again
The Crew

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lifelogger
What if your journal wrote itself?
The World Today

Personal Analytics

Photo Uploading

Location

fitbit

facebook

foursquare

lifeLogger
Our Solution

Never forget a place
  Log everywhere you go
Never forget a face
  Upload photos as you take them
Never miss a friend
  Get notifications when your friends are nearby
Forget it’s there
  An ultraportable device invisible to the user.
## Competitive Analysis

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<th>GPS data</th>
<th>Bluetooth connectivity</th>
<th>Web interface</th>
<th>Photo Uploading</th>
<th>Active data analysis</th>
<th>Friend Network</th>
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Why can’t this just be an app?
GPS: 2.5 m vs 8 m
Battery concerns
Leaving your phone behind
60% of Americans don’t have smartphones
Functional Requirements

Collect GPS data onboard the lifeLogger
Communicate between two lifeLoggers over Bluetooth to share contact and profile information
Transmit data from the lifeLogger to a smartphone over Bluetooth
Transmit data from the smartphone to the web server
Analyze data on the web server to be able to detect when two friends are nearby
Notify the user on their smartphone about nearby friends
Construct a user friendly website to allow the user to view their collected data
Nonfunctional Requirements

Portability
The device should be small enough that the user can carry it around conveniently. This will be a little difficult using only off the shelf parts, but would certainly be feasible if we were fabricating our own hardware.

Ease of Use
Ideally, lifeLogger will be nearly invisible to the user. After the initial sync with the Bluetooth device of their choice, lifeLogger should collect and transmit data automatically, never requiring input from the user.
Hardware

Bees Shield

GPS Bee

Bluetooth Bee

2Ah Battery

Seeeduino v3.0
(Duemilanuve Schematic)
Architecture

PC

Upload GPS data to server →
← Retrieve website for user

Transmit Location data

lifeLogger

Transmit Location data

Share contact and profile information

lifeLogger

Website

Retrieve nearby friend/profile information

Upload GPS/pictures

Android
Internal Architecture

- GPS Bee
- Bluetooth Bee
- Arduino
- Battery
- Android
Risks & Mitigation Strategies

False Positives for Conversations
  - Refine through testing
  - Use both BT and GPS to gather location information

GPS Accuracy Indoors
  - Add logic to the server-side location monitoring to detect GPS data loss or degradation. Because the data corruption should only occur while the user is in a building, we know where they are until the signal returns

Multiple, Bluetooth Connections
  - It may be unfeasible for the lifeLogger to maintain connections to other lifeLoggers and a smartphone simultaneously. We may have to not require the lifeLoggers to communicate with each other, leaving more work for the web server.

Battery Performance
  - Adjust polling frequency to optimize for both data richness and battery life

Server Scalability
  - We would need bigger, better servers
  - To operate, a subscription model might be necessary
Questions?