

# Location aware notification system, using Arduino and a smartphone

## Purpose

The purpose of the project is to create a notification system, which will track an Arduino boards position using GPS. The Arduino board has to notify an administrator, using an application on a smartphone, if said board moves out of a pre-defined area.

## Functional demands

### Absolute minimum requirements

- Drawing of simple and acceptable area on a map, using a browser and google maps API
- Export of coordinates from said area.
- Notification by LED on Arduino board whenever it is outside said Area.

### Acceptable minimum requirements

- Drawing of multiple areas, that connect with each other, with the possibility to change and delete area.
- Tracking the Arduino board with Bluetooth. Notification when Arduino board is outside of drawn area.

### Extensions

- Notification must be sent using GPRS or other wireless signal, to a smartphone.
- Arduino board must be traceable using and APP on a smartphone, AFTER notification has been sent.
- User account control for the drawing of acceptable area
- Arduino board should be able to fetch new acceptable areas upon initialization over the air
- Extended user interface

## Time Schedule

- Deadline 12/3 – Absolute minimum
- Deadline 16/4 – Acceptable minimum
- Deadline 7/5 – Report + possible extensions

## Github

- <https://github.com/mejborn/gps-watch.git>