

INF-3910-3 IoT – Milestone 4: Beta-version

Thomas Bye Nilsen and Valter Berg

The current state of the project:

- The sensors gather position and battery life.
- The position of a sensor is displayed on a map, given a time interval.
- It is possible to use a slider to change the position along the time line. As you move the slider, the pins on the map move as well.
- Things can be managed from the front-end dashboard
- Login session for a user on the app.

Features that remain:

- Temperature sensors remain to be connected.
- Calculate the distance traveled by one individual in the time interval.
- Downlink transmission from dashboard to things – it should be possible to adjust the update rate of the things. This is where battery life comes into play. The front-end should be able to estimate battery time left for each thing.
- Some visual effects, such as color map corresponding to a temperature reading and some tiny adjustments on buttons, datepickers, links, etc... .
- Find center of pack. Use Euclidean geometry to achieve this.

Notable observations so far:

- the GPS coverage area in Tromsø has many gaps. This imposes some practical limitations on a useful use-case (for example tracking sheep). However, because of the gaps, it is possible to map the coverage available in Tromsø. This point is relevant to the final report.
- The accelerometer readings fluctuate so much that it might not be possible to use it to discover a dead animal. To alert of a dead animal is still an open problem.