**Spike Plan**

**Name:** Serverless

**Context:**

This spike implements the functions created in the previous spike in a serverless application

**Gap:**

This spike serves to evaluate the performance of and difficulty developing a serverless application using Firebase cloud functions. The results will be used to compare against an on-premise implementation.

**Goals/Deliverables:**

A serverless implementation of the following:

* A node.js based program that reads the data from the Arduino using a motion detector and pushes it to the firebase. The data that the program pushes should be in the json format with 3 attributes:
  + Timestamp
  + Motion start time
  + Motion end time
* A program that does the following:
  + Listens to firebase
  + For every new object:
    - Send email to pre-defined address if motion is long
    - Send email to pre-defined address that shows how many long and short motions have been detected

**Planned start date**: 07/09/2017

**Deadline:** 10/09/2017

**Planning notes:**