**Backlog**

**Features:**

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| --- | --- | --- |
|  | **Difficulty** | **Priority** |
| 1.Server - Motion data entered through a motion sensor | 1 | Medium |
| 2.Server - Read all the detected motion | 1 | Medium |
| 3.Server - Upload the motion data into Firebase | 2 | Medium |
| 4. Server – ability to terminate the transmission | 2 | Medium |
| 5.Client – get motion data from Firebase | 2 | High |
| 6.Client - Decode the motion sensor messages into English | 3 | High |
| 1. Client - Print out the decoded messages | 1 | Medium |
| 8.Client – start and stop transmission through client side | 1 | Low |

**Server:**

1.Motion data entered through a motion sensor:

The input data for the Morse code application are motions made by the user. A motion sensor will be used to collect motion data.

2. Read all the detected motion:

The server side of Morse code application will be able to read all the motion detected by the sensor. This includes whether it is a long motion, short, new letter or new word.

3.Upload the motion data into Firebase. “S” for short motion, “L” for long motion, “new\_letter” and “new\_word”

4. If “SK” was sent without any “new\_letter” or “new\_word” signals in between, the server will terminate it-self. Also, it will act as a prosign on the client side to tell that the transmission has been ended.

**Client:**

5. Get motion data from firebase. This is the data that had previously been uploaded by the server.

6. When enough data is collected, decode the signals into English, numbers and punctuations.

7. Output is printed on the index.html page. This also includes raw signals from firebase.

8. Application can be started and stopped by users

User can start or pause the application by clicking the checkbox ‘Accept signals’.

**User stories:**

1. As an app user, I want to enter data through a motion sensor.
2. As an app user, I want the server to listen to all motion sensor’s signals.
3. As an app user, I want to read the detected motion signals from the server console.
4. As an app user, I want the server to stop transmission if it sends “SK”
5. As an app user, I want the client to receive the data from the server
6. As an app user, I want the client side to print out the decoded messages.
7. As a user, I want support for numeric values and punctuations.
8. As a user, I want the client side to be able to start/stop the transmission process.

9.As an app user, I want to decode the motion sensor messages to be decoded into English letters.