

Bi-Weekly Report 1

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1 Goals for the Week 14 May - 20 May 2018 (Xhoni Robo, 30y)

After receiving feedback from the previous week, the group decided on the following goals in the next sprint:

1. Ensure that the SensorTag uses only the required sensors for our application (i.e. Accelerometer and Gyroscope), using EXCLUDE statements
2. Implement the SensorTag Bluetooth I/O functions in C
3. Implement the SensorTag Alarm function in C
4. Design a Basic UI
5. Make a basic PC Application
6. To Be Continued...

The tasks are divided among the members in the following way:

- Raul Bertone and Xhoni Robo:
 1. Use Exclude Statements to ensure only Accelerometer and Gyroscope sensors send data
 2. Implement the SensorTag Bluetooth I/O functions in C
 3. Implement the SensorTag Alarm function in C
- Elis Haruni:
 1. Subitem 1
 2. Subitem 2

- Muyassar Kokhkhharova:

1. Subitem 1
2. Subitem 2

- Saidar Ramazanov

1. Subitem 1
2. Subitem 2

2 Sections and Paragraphes

Usually when using a L^AT_EX document sections and paragraphs are used to categorize your content. Down below you'll find some examples how to create and use sections and paragraphs. As you will see the enumeration of the sections and subsections will be done automatically.

2.1 Example: Subsection

Some text...

2.1.1 Example: Subsubsection

Some text...

Example: Paragraph Some text...

Example: Subparagraph Some text...

3 Images

When using images in L^AT_EX you will need the command down below, furthermore make sure to always reference the source of an used images. The `[h]` argumet will set your image on this exact place in the document. If you want to reference to an image, you'll need the following command, which creates the following output: **Figure 1**.

4 Tables

Down below you'll see a simple example of a table with two coloumns. If you want to reference a table, the same command applies as when referencing to an image: **Table 1**



Figure 1: Logo: Frankfurt University of Applied Sciences

Optimization Flag	Execution Time (ms)
-O0	809-812
-O1	612-663
-O2	404-406
-O3	405-406
-Os	339-341

Table 1: Comparison of execution time with different optimization levels

5 Itemization and Enumerations

If you need to itemize or enumerate something, you can do this as following, furthermore there are little examples of how to use subitems as well.

Itemization

- Item 1
- Item 2
- Item 3
 1. Subitem 1
 2. Subitem 2
- Item 4
- ...

Enumeration

1. Item 1
2. Item 2
3. Item 3
 - (a) Subitem 1

- (b) Subitem 2
- 4. Item 4
- 5. ...

6 Code Listings

This section will give you a little example of how to use Code Listings in your L^AT_EX document, if you want to add some Code snippets in your weekly reports.

Listing 1: Taskhandler of Router

```
void APL_TaskHandler(void){
    switch(appstate) {
        case APP_INIT_STATE:
            BSP_OpenLeds();

            timer.interval = 3000;
            timer.mode = TIMER_REPEAT_MODE;
            timer.callback = timerFired;

            HAL_StartAppTimer(&timer);

            appstate = APP_RED_STATE;
            SYS_PostTask(APL_TASK_ID);
            break;
    }
}
```

7 Referencing

In a scientific report it is mandatory to use references and cite correctly. This section will show you how to reference. Normally there are two ways to reference something. For example if you'll need to reference to a certain page in a book, this could be done as following: [1, p.233], if you just want to cite the whole source it would look like this: [2].

It is important as well, that if you cite a specific sentence or part of something, that you use the quote right.

For example: "*Tables are a common feature in academic writing, often used to summarize research results.*" [3]. But if you paraphrase something out of a resource, it could look something like this: Tables are often used in academic writing and can summarize research results (cf. [3])

If you want to add a new reference to your document, you need to open the **bibliography.bib** file in the **template** folder via TeXstudio and add it. In the file there are some examples for books and web sources.

7.1 Internet sources

Sources out of the internet are often used by students, but **do not** only provide the URL of the source. You'll always need to state the author, title and your last access to the website as well! If you look in the References section down below, you'll see how to reference a web source correctly.

References

- [1] Markus Krausse Rainer Konrad. *Drahtlose ZigBee Netzwerke - Ein Kompendium*. Springer Vieweg, 2014.
- [2] ShareLaTeX. *Documentation*. https://www.sharelatex.com/learn/Main_Page. [accessed 27.04.18].
- [3] WikiBooks. *LaTeX/Tables*. <https://en.wikibooks.org/wiki/LaTeX/Tables>. [accessed 27.04.18].