

## Lab 1 - Individual Report

In this Lab we are creating a user Interface design of the wearable sensor design with the help of processing software. Two libraries are used in the code; they are serial input (for serial monitor input) and Grafica (for plotting the data in a graph). The input on processing is in string format. We have used “-” in arduino code in order to slice the string and extract the heart rate values in the processing. Even with the help of a library in grafica we will not be able to plot them as a graph as the heartbeat value is a string. Therefore we will convert the value into an Integer and store it in a variable. We will create a new variable and store the string which is converted into an integer. Now we will be able to plot a graph of the new Integer. In the x-axis we time and on the y-axis we have heart rate with this we can plot a standard grafica default plot. A line graph can be observed by the patient or observer as the data points for heartbeat are plotted against time. The beats per minute(BPM) value is shown in numerical value. As the axes automatically change in accordance with the values. Therefore we can say that the UI provides an accurate and user-friendly interface.

