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| *Scenario name* | AnalyzeEmg |
| *Participating actor instances* | personarm: EMGInput, suit:Exosuit |
| *Flow of events* | 1. personarm, is the main source of input for the system |
|  | 1. personarm authenticates into the system to power it up |
|  | 1. personarm generates the required force to fetch the data to the system. |
|  | 1. The system checks whether the data arrives to system or not. |
|  | 1. The system loads the data in a form an array form. |
|  | 1. The system perform an filtration process to remove the unnecessary signals and noises. |
|  | 1. The system then perform an FFT on the filtered signal to determine the frequency response of the signal. |
|  | 1. In case, of a very large and fast moving data, the systems divides the filtered signals to equal windows to perform window analysis. |
|  | 1. The system then calculates the power of the respective frequency to evaluate the increasing power factor to analyze the load on user. |
| *Entry Condition* | * The serial data needs to be available to the system. |
| *Exit Condition* | * The ADC (Analog to Digital Converter) has to send an interrupt to close the serial data. * The power factor of the signal is calculated and the raw data remains unchanged. |