

Analysis Date
Subject

17-Jul-2011
Analysis Report



1 Device and Recording Information

This is a draft report of a general-purpose analysis. This version assumes that a button was used to mark the beginning and end of an analysis period of interest.

2 Time Domain Plots in the Sensor Frame

2.1 Accelerometers

2.1.1 Device 1

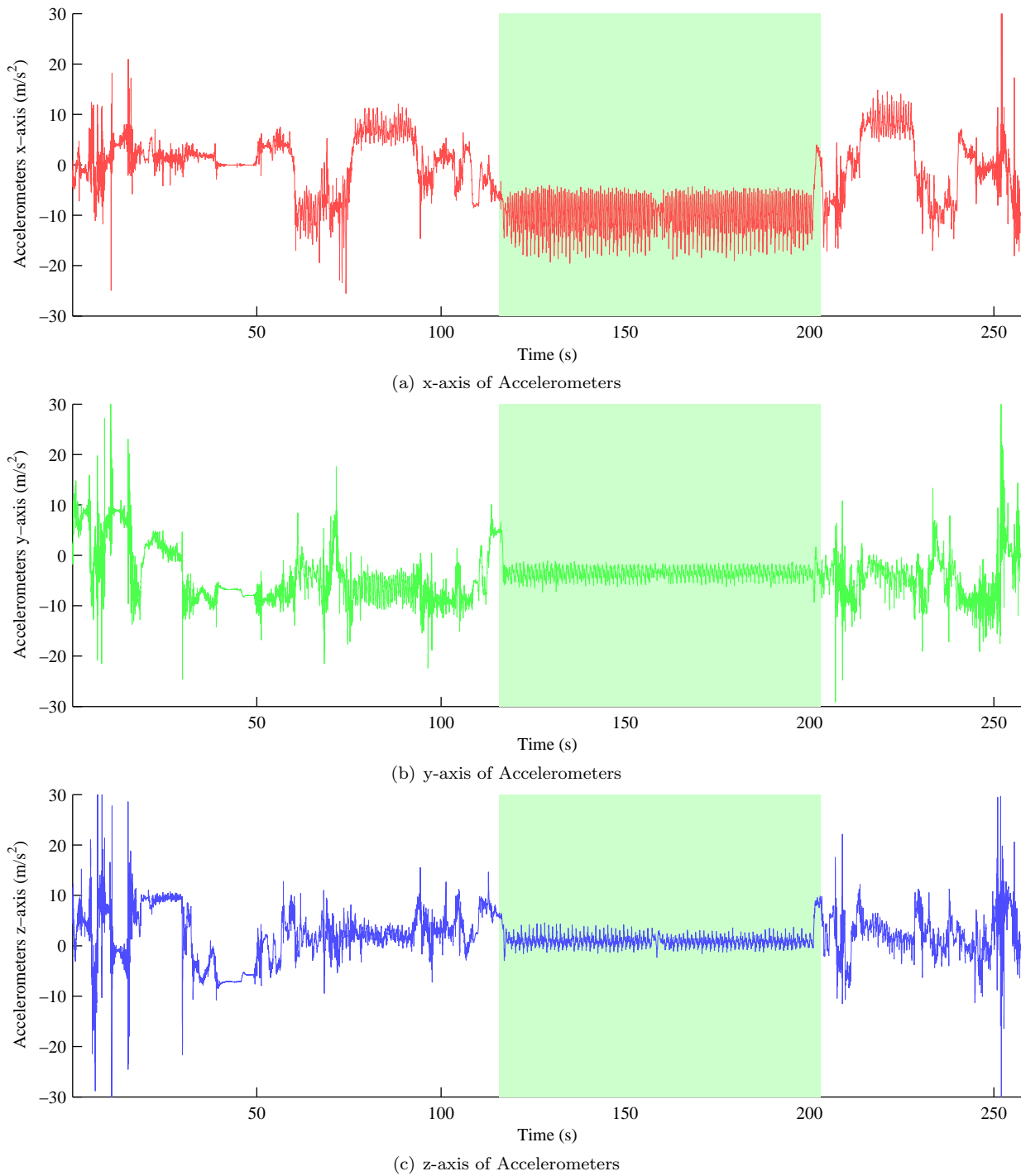


Figure 1: Time Domain Plots in the Sensor Frame of the accelerometers while the monitor. Plot of the time domain data.

2.1.2 Device 2

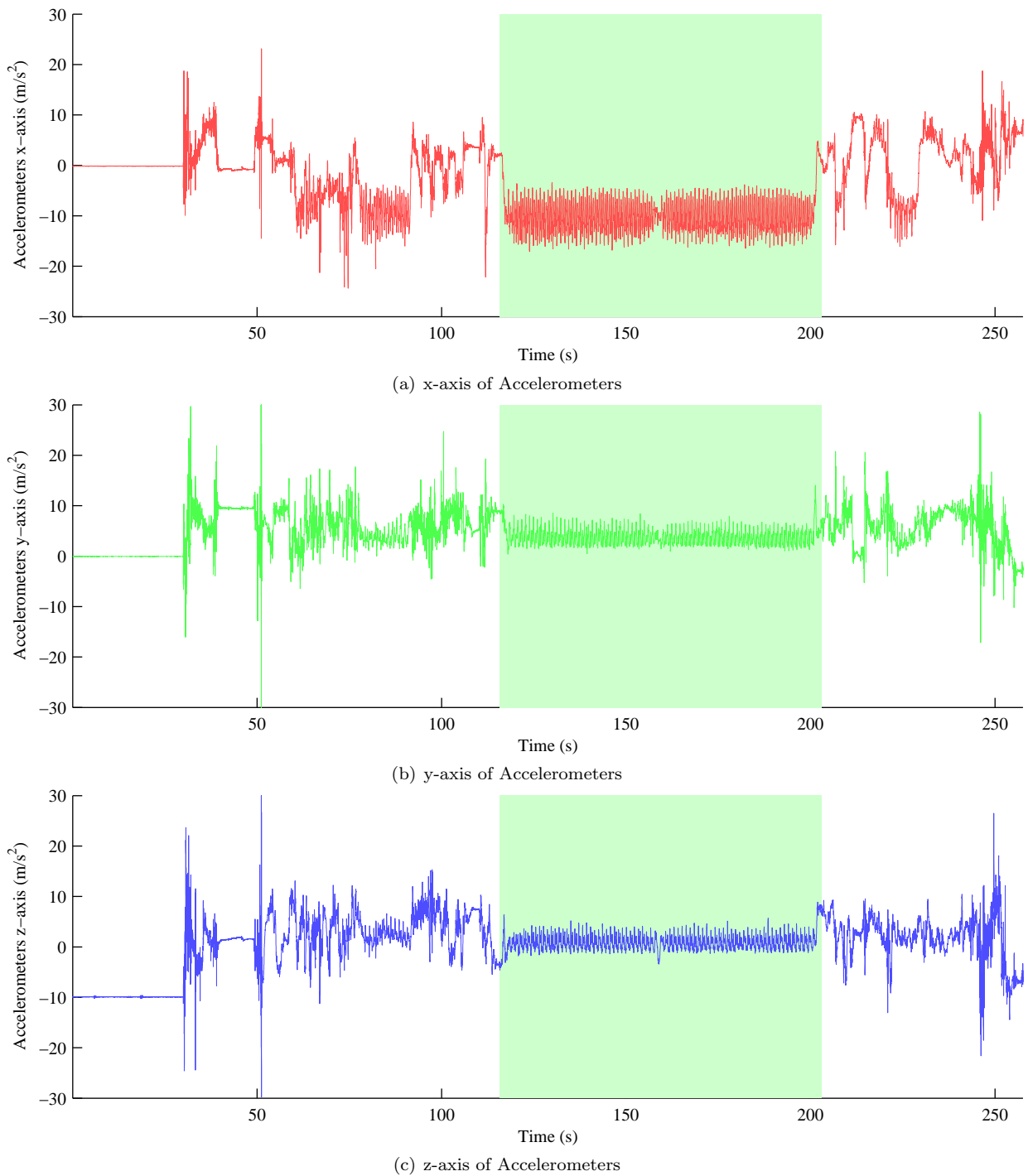


Figure 2: Time Domain Plots in the Sensor Frame of the accelerometers while the monitor. Plot of the time domain data.

2.2 Gyroscopes

2.2.1 Device 1

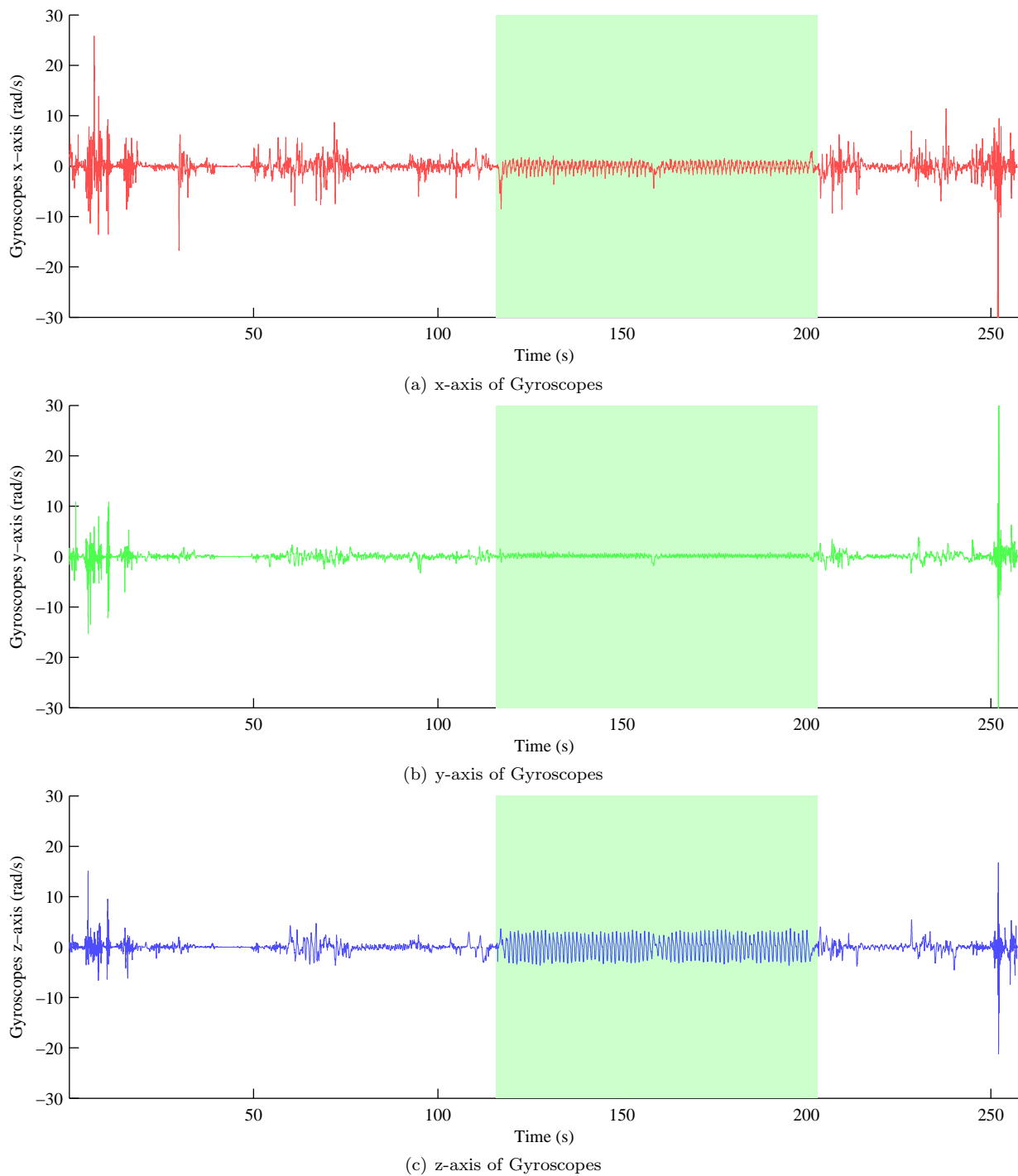
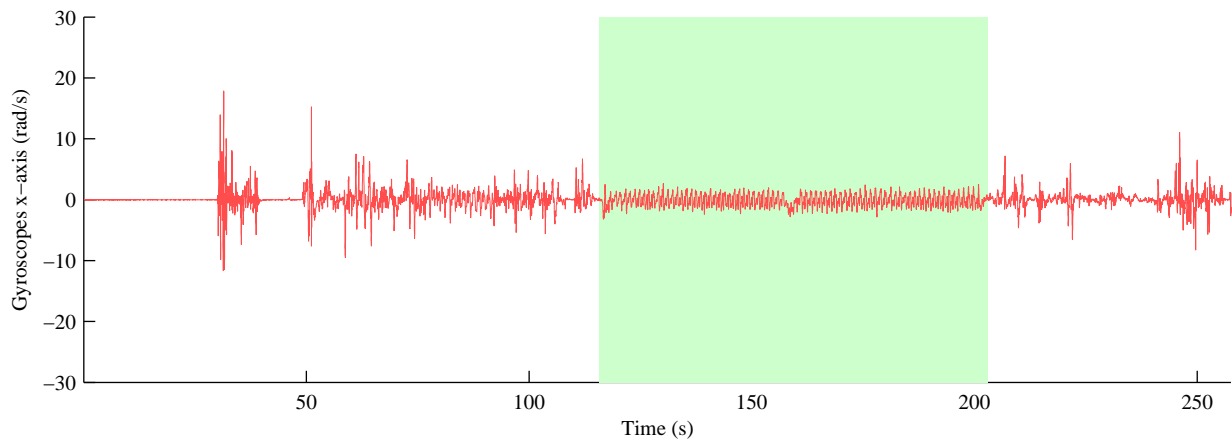
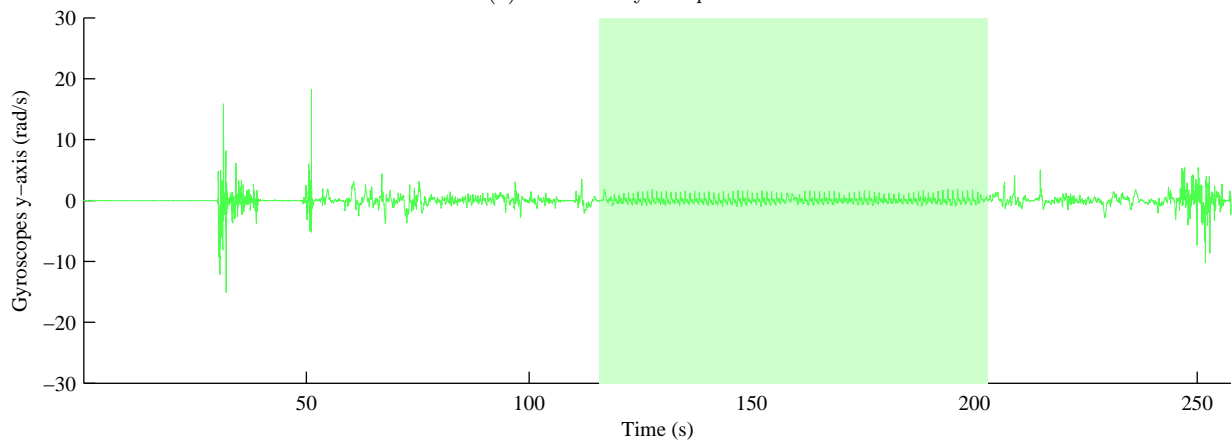


Figure 3: Time Domain Plots in the Sensor Frame of the gyroscopes while the monitor. Plot of the time domain data.

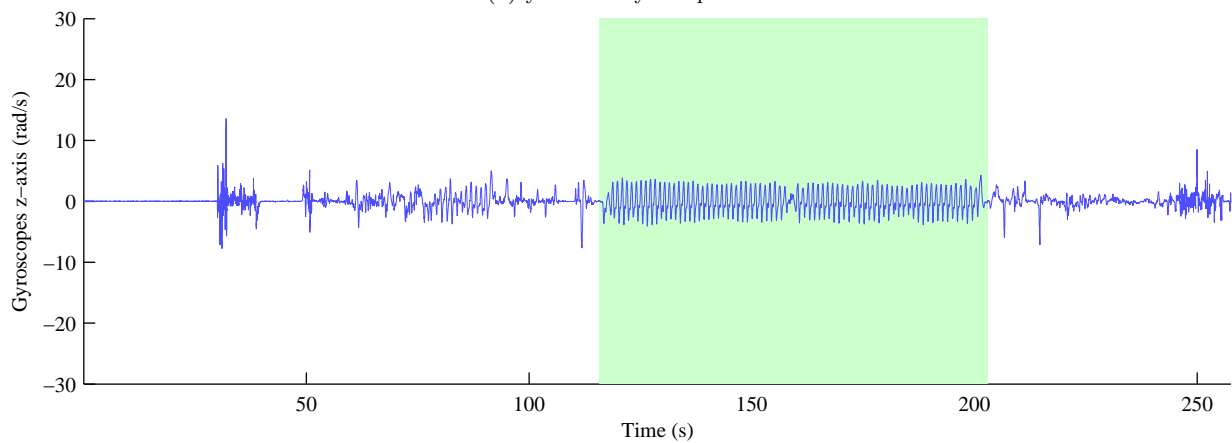
2.2.2 Device 2



(a) x-axis of Gyroscopes



(b) y-axis of Gyroscopes



(c) z-axis of Gyroscopes

Figure 4: Time Domain Plots in the Sensor Frame of the gyroscopes while the monitor. Plot of the time domain data.

2.3 Magnetometers

2.3.1 Device 1

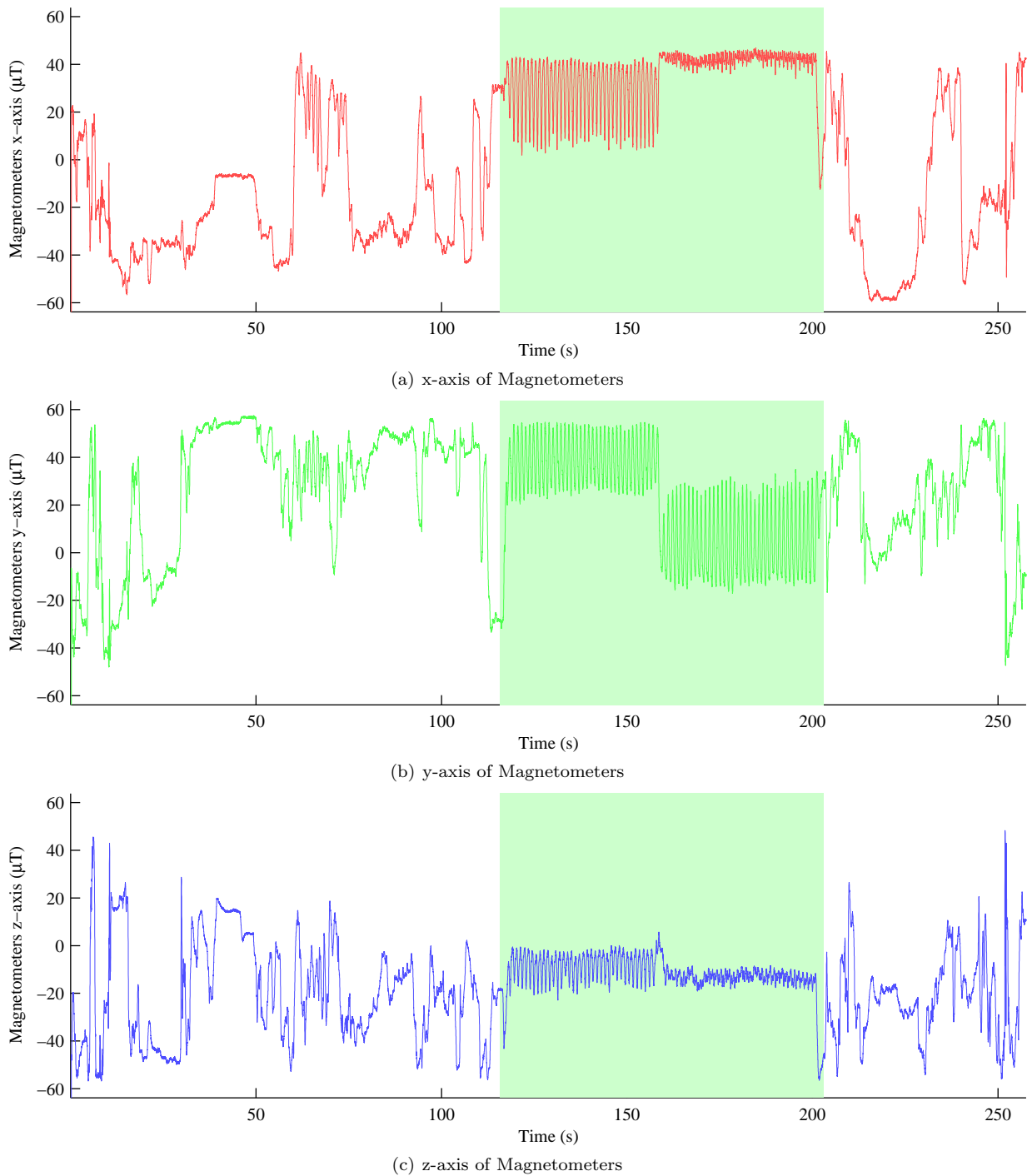
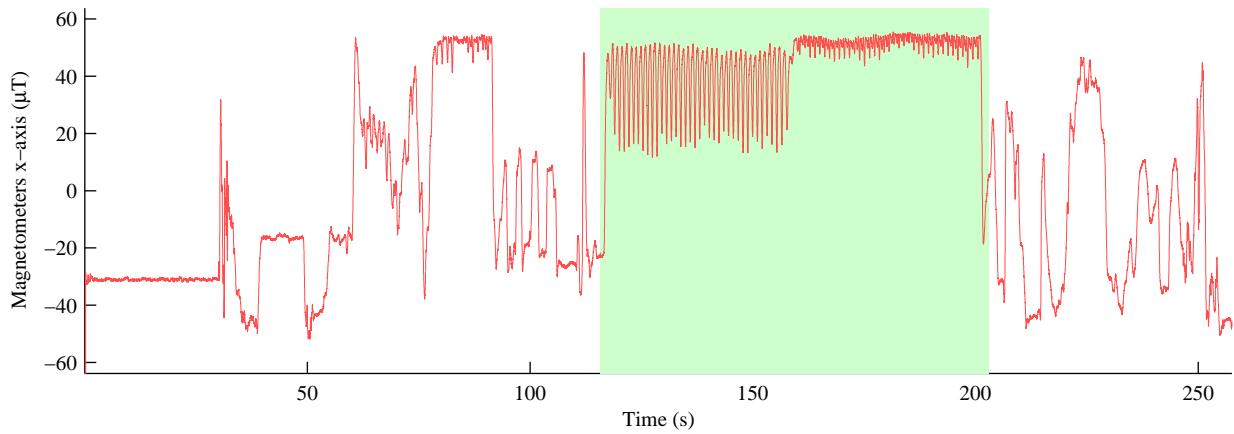
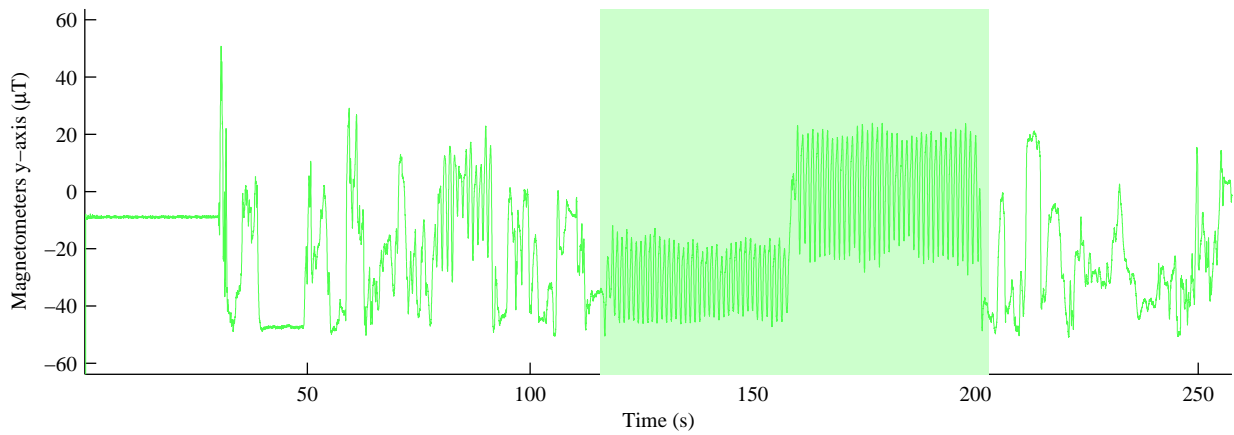


Figure 5: Time Domain Plots in the Sensor Frame of the magnetometers while the monitor. Plot of the time domain data.

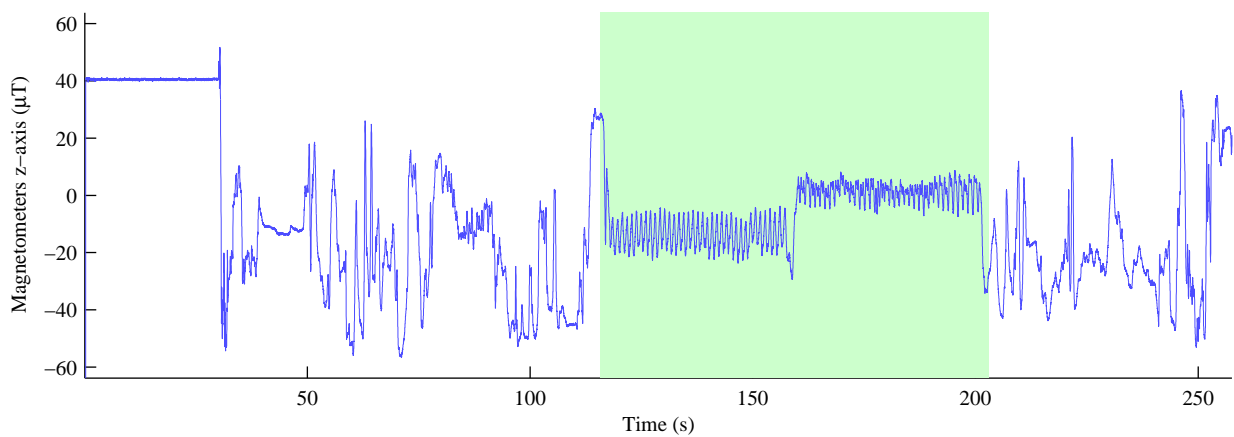
2.3.2 Device 2



(a) x-axis of Magnetometers



(b) y-axis of Magnetometers



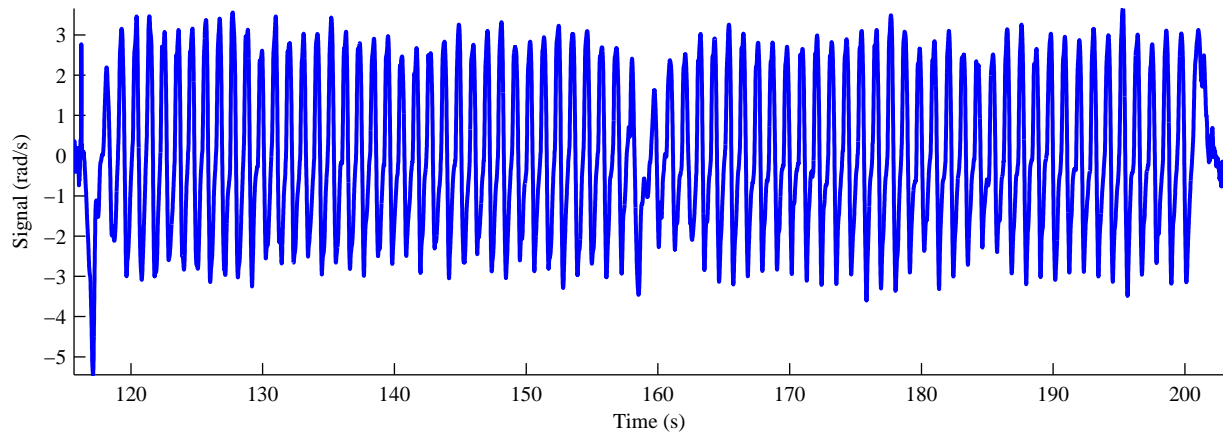
(c) z-axis of Magnetometers

Figure 6: Time Domain Plots in the Sensor Frame of the magnetometers while the monitor. Plot of the time domain data.

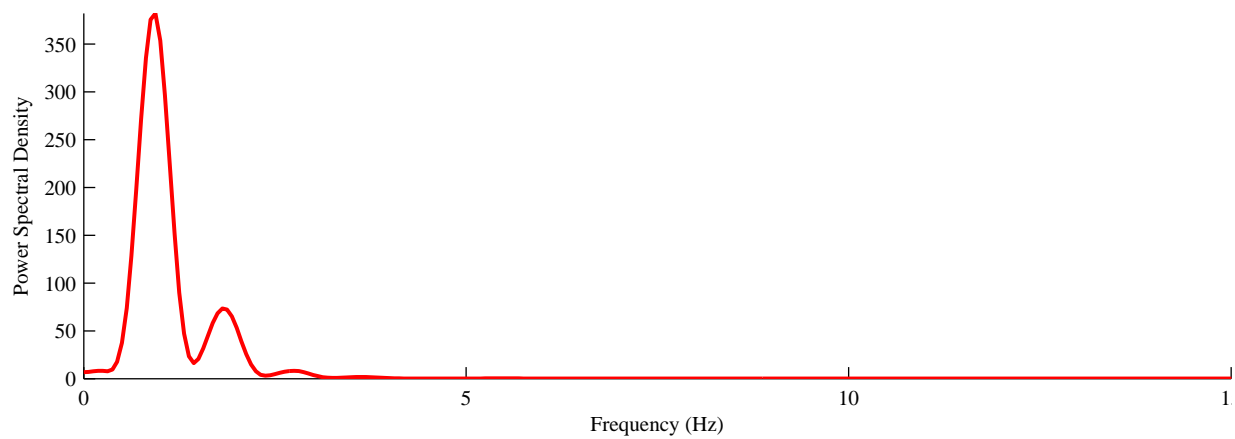
3 Segment Analysis

3.1 Segment 1

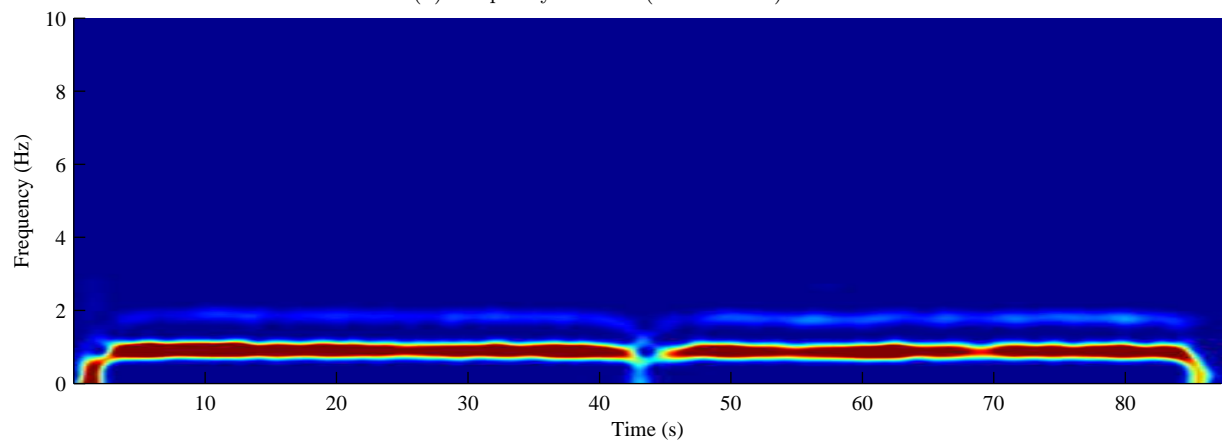
3.1.1 Device 1



(a) Time Domain



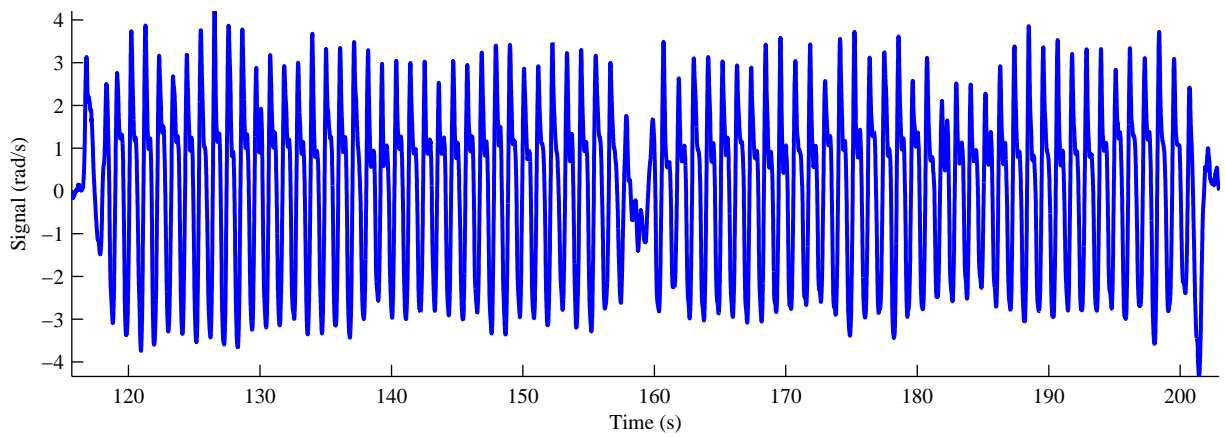
(b) Frequency Domain (Linear Scale)



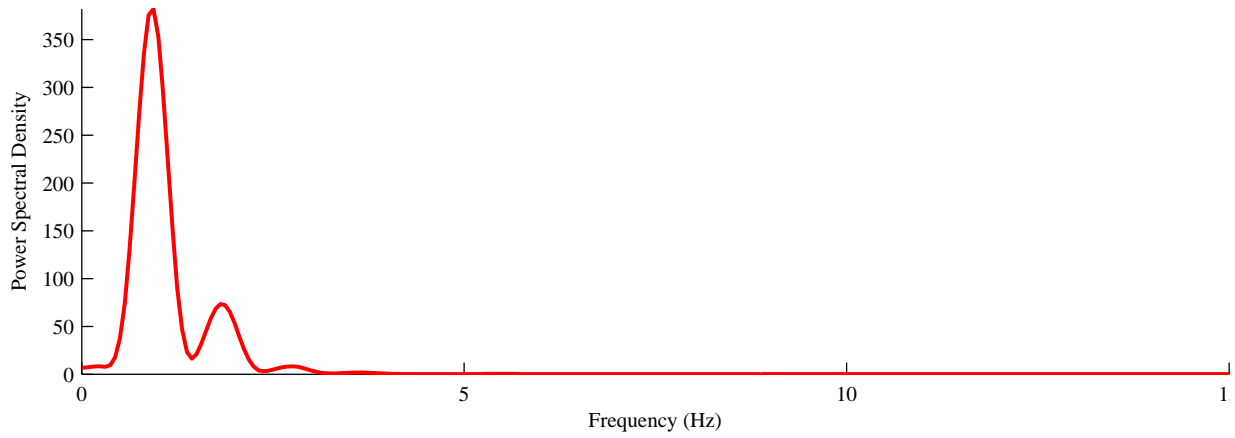
(c) Time-Frequency Domain

Figure 7: Analysis of the principal component of the gyroscopes signals. The power spectral density was estimated with the Blackman-Tukey method and a 5.0 autocorrelation window duration.

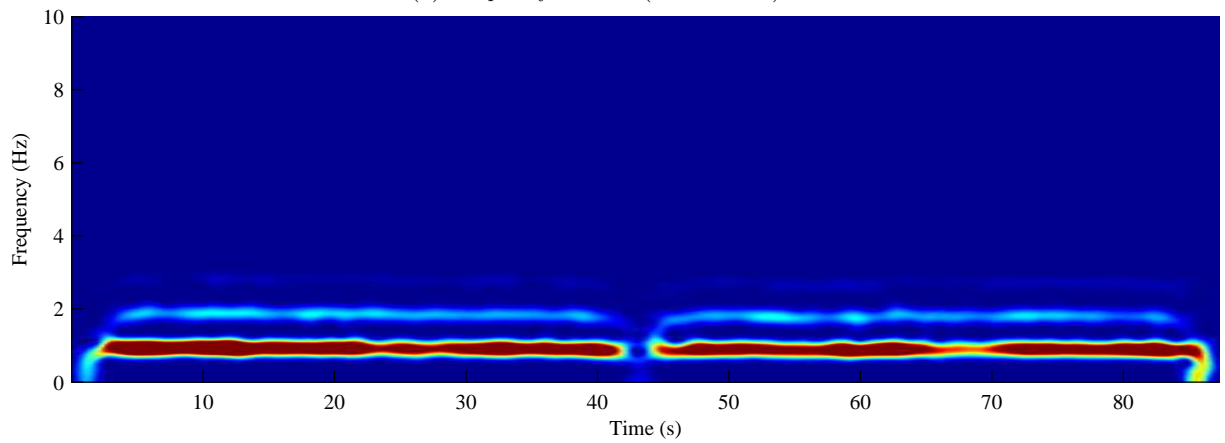
3.1.2 Device 2



(a) Time Domain



(b) Frequency Domain (Linear Scale)



(c) Time-Frequency Domain

Figure 8: Analysis of the principal component of the gyroscopes signals. The power spectral density was estimated with the Blackman-Tukey method and a 5.0 autocorrelation window duration.