runfile('C:/Users/Andre/Desktop/Senior Design/Acceleration Algorithm [3.0].py', wdir='C:/Users/Andre/Desktop/Senior Design')
C:\Users\Andre\Anaconda3\lib\site-packages\ipykernel\parentpoller.py:116: UserWarning: Parent poll failed. If the frontend dies,
        the kernel may be left running. Please let us know
        about your system (bitness, Python, etc.) at
        ipython-dev@scipy.org
  ipython-dev@scipy.org""")
THIS IS AN ANALYZER DESIGNED FOR DATAFRAMES GENERATED BY METAMOTIONR 3AXIS ACCELEROMOTERS
THE ANALYSES REQUIRE THAT ANY TESTS PERFORMED HAVE 1-2S OF STATIONARY DATA BEFORE EXPERIMENT BEGINS

 *** FILE METRICS ***
Semester 2 -X Test2 800Hz +- 4Gs Jan 29 2019.csv is being analyzed
Data Size: 0.54 MB
Samples: 8621
Time elapsed: 10.802999999999999 s

Raw Acceleration in Z Domain


Raw Accelerations in X, Y, Z Domains
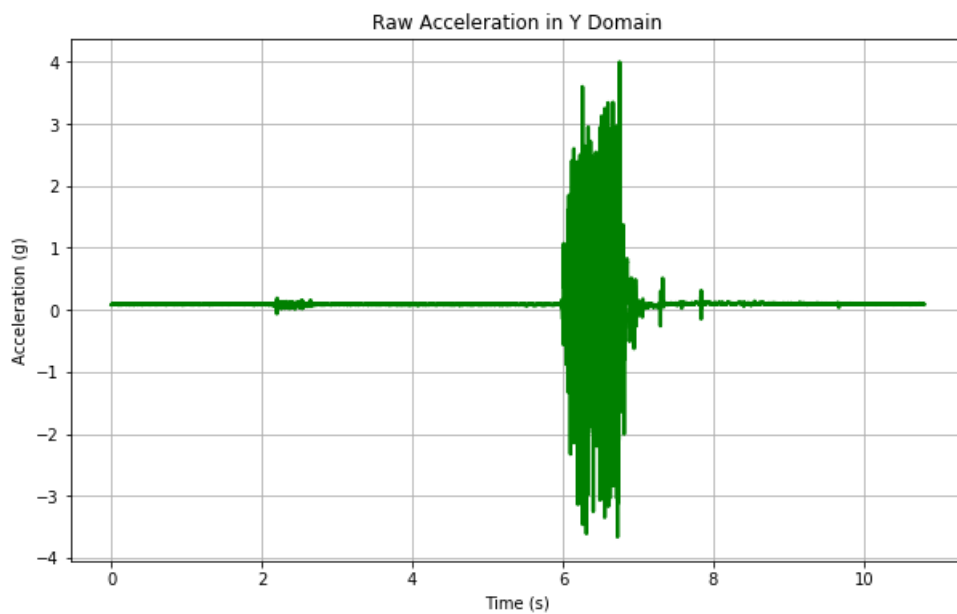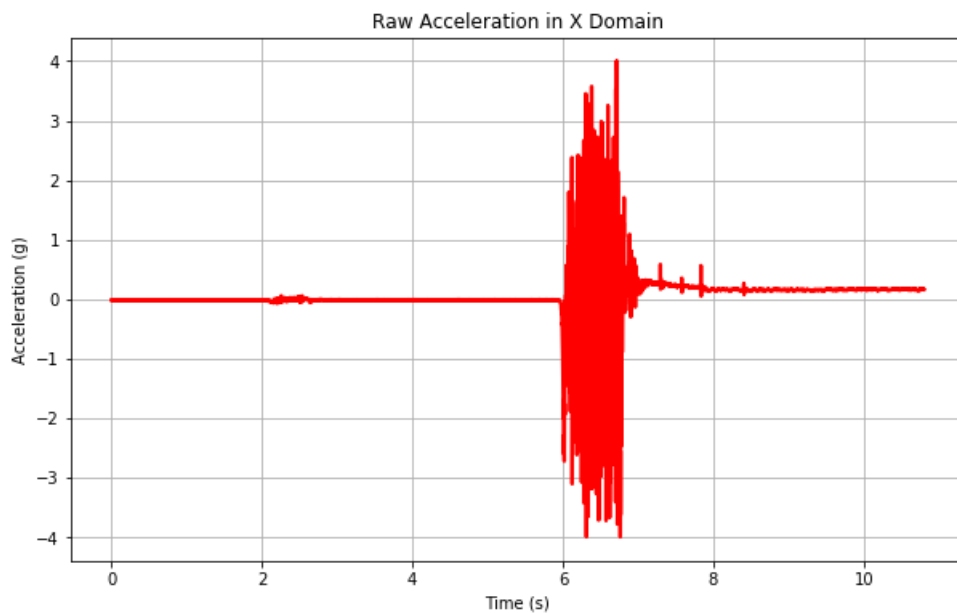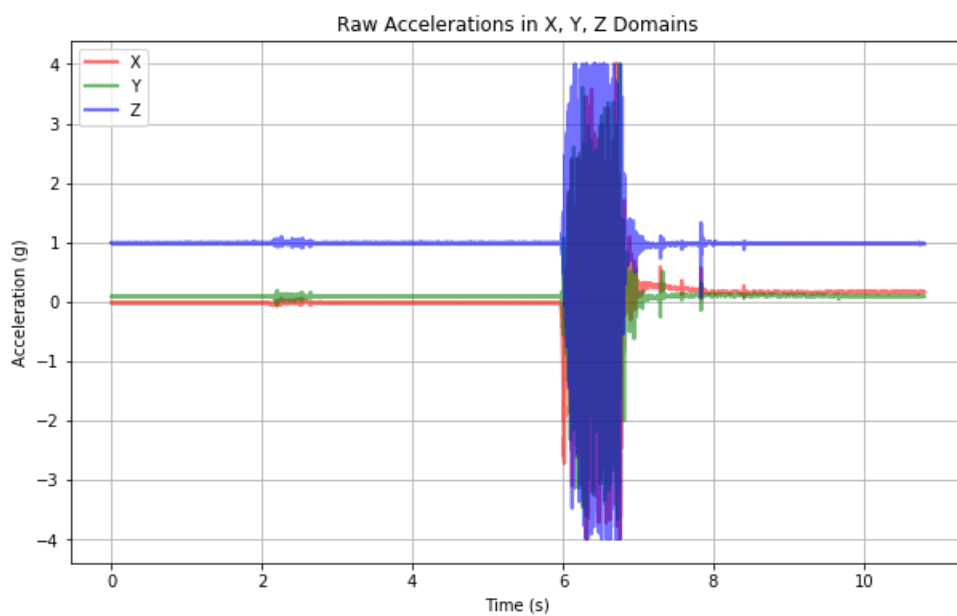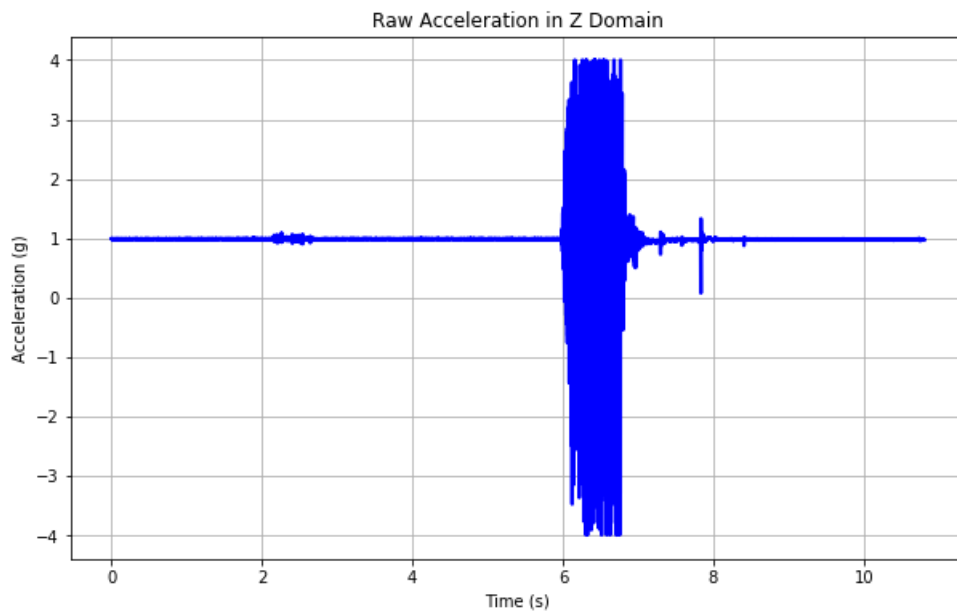
C:\Users\Andre\Anaconda3\lib\site-packages\scipy\signal_arraytools.py:45: FutureWarning: Using a non-tuple sequence for multidimensional indexing is deprecated; use `arr[tuple(seq)]` instead of `arr[seq]`. In the future this will be interpreted as an array index, `arr[np.array(seq)]`, which will result either in an error or a different result.
  b = a[a_slice]

Denoised X Acceleration

Denoised Y Acceleration
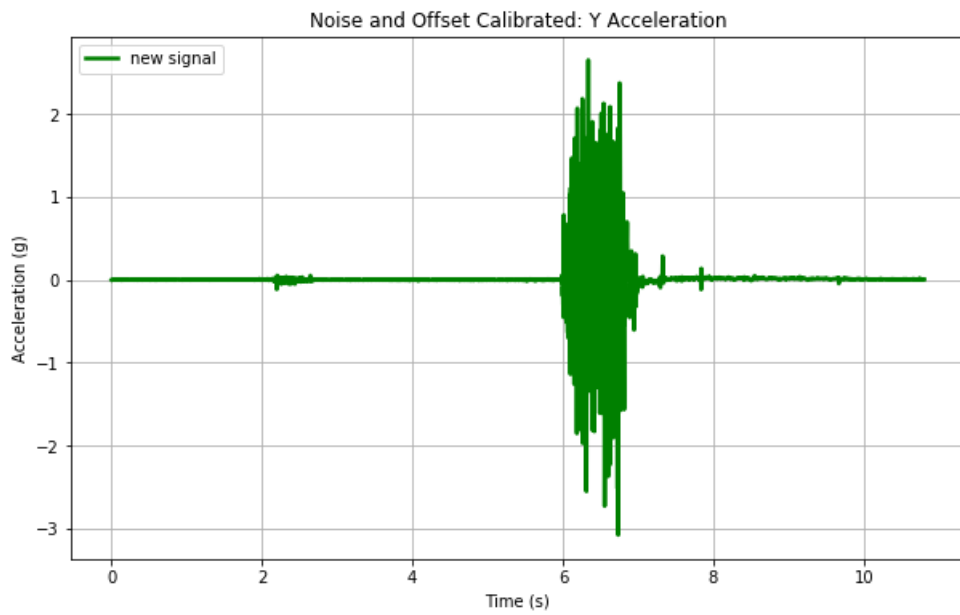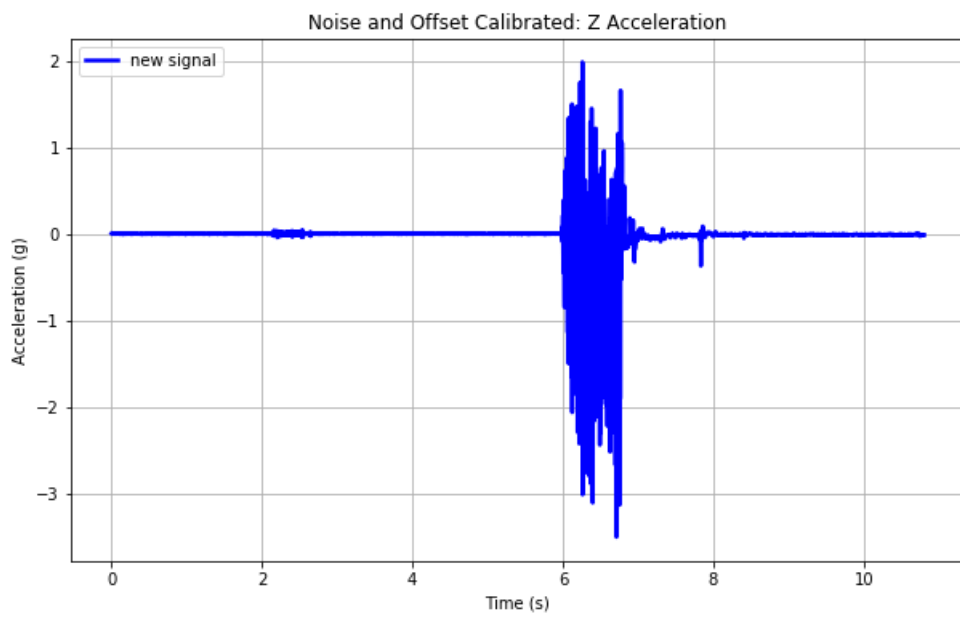

Denoised Z Acceleration
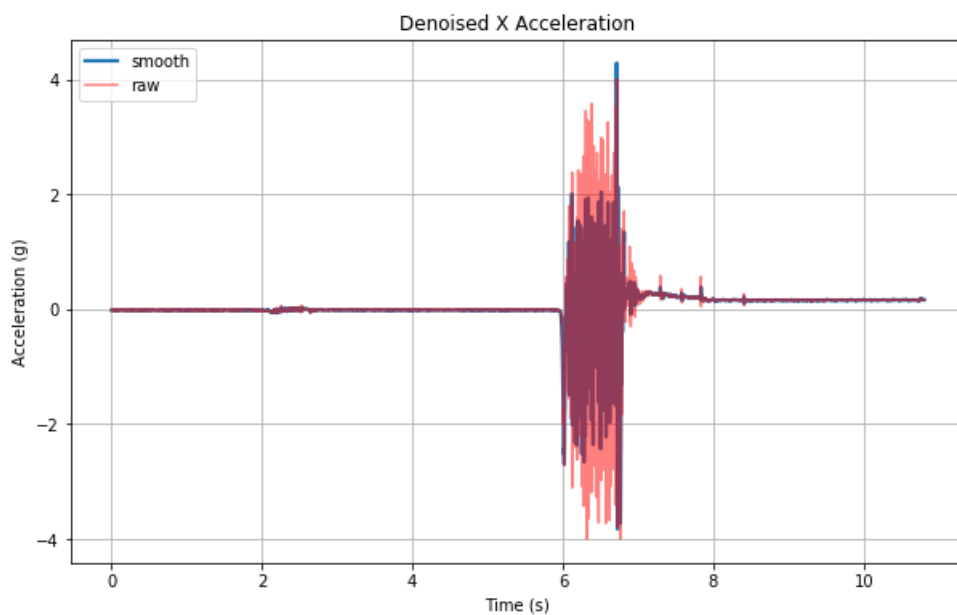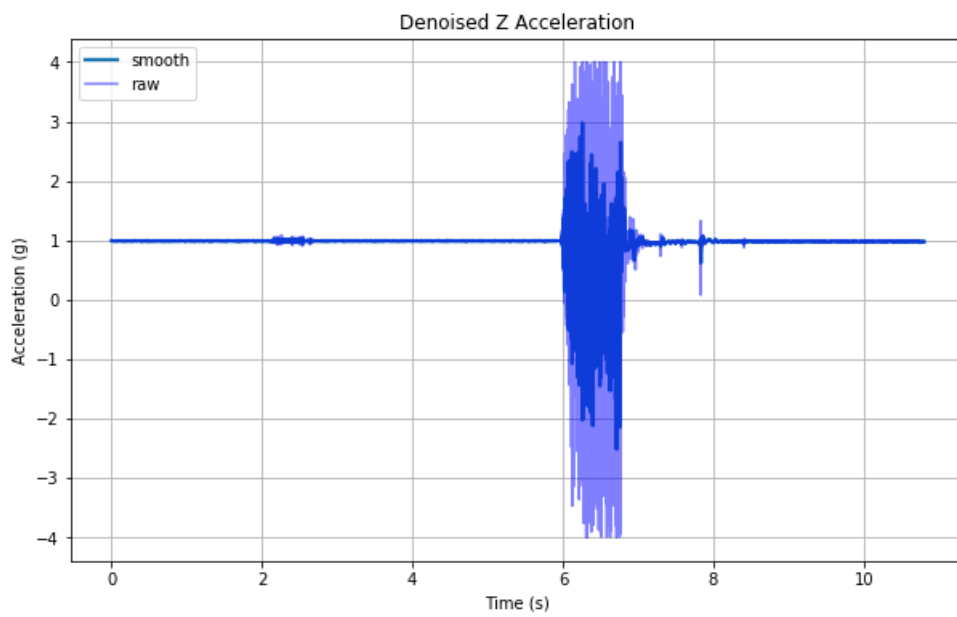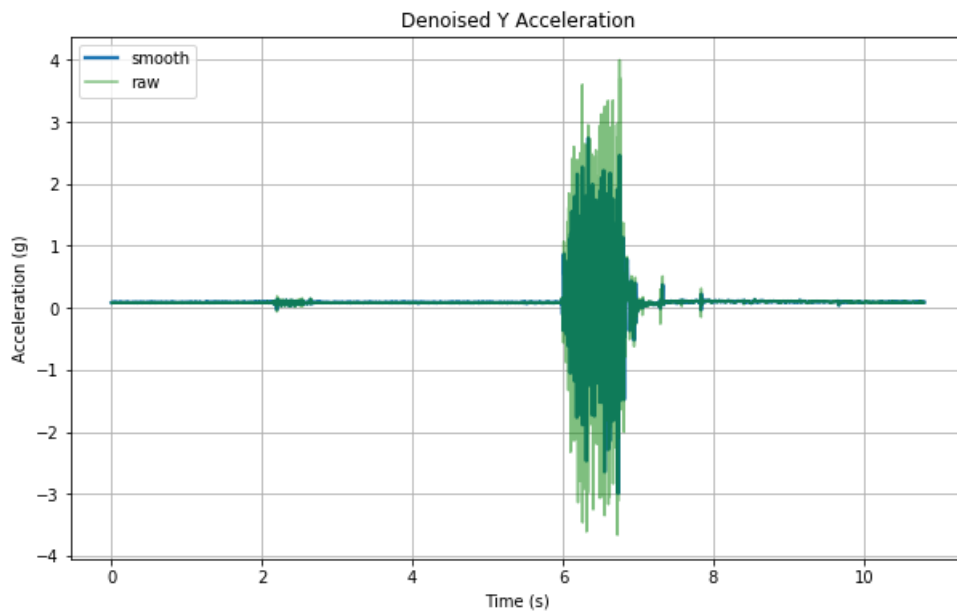
Offset first 200 samples X: %.4f -0.01875551875020443
Offset first 200 samples Y: %.4f 0.08702149968394086
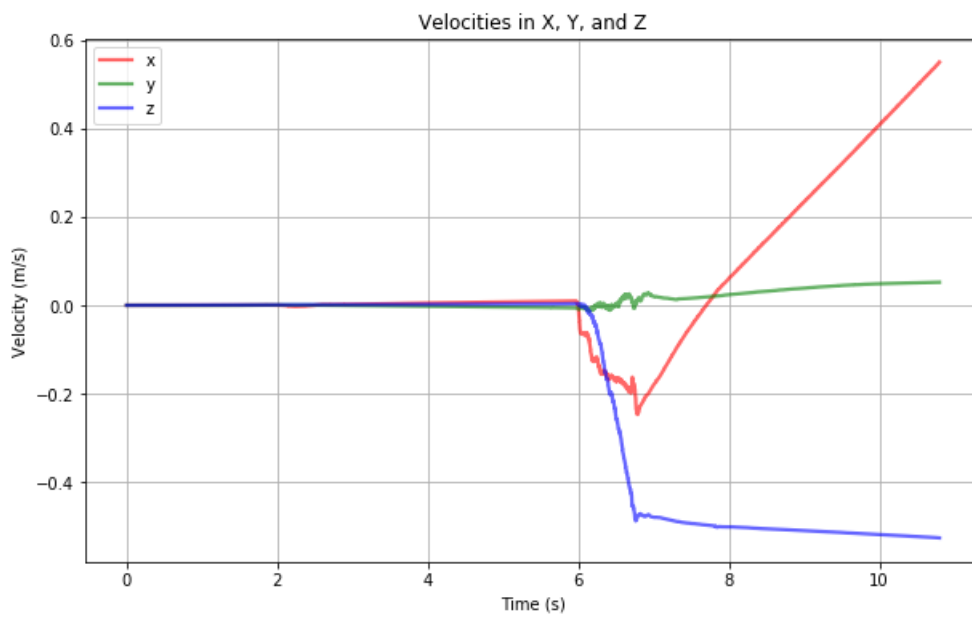Offset first 200 samples Z: %.4f 0.012783010959668717

Noise and Offset Calibrated: X Acceleration
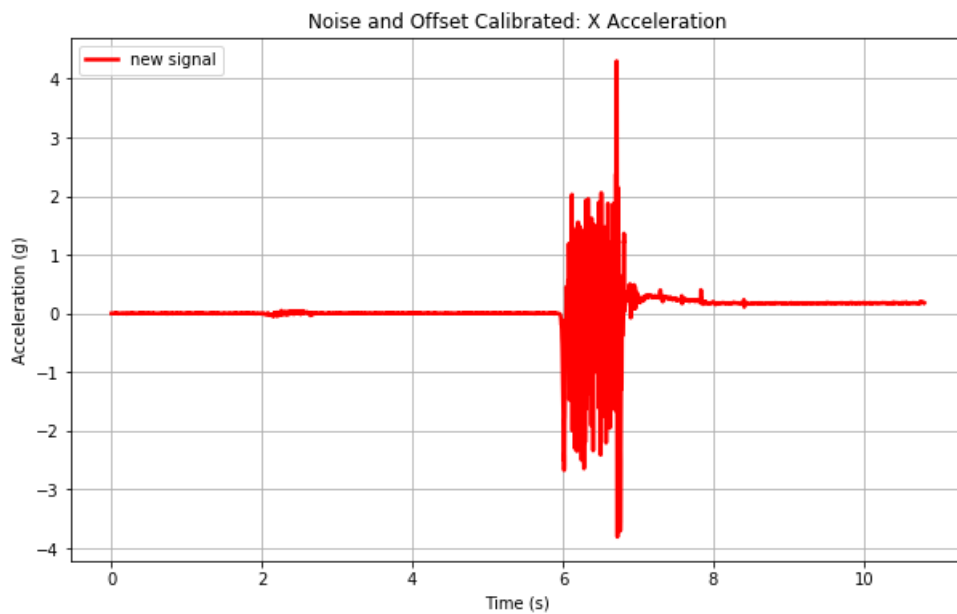
Updated Offset first 200 samples: 1.5959455978986626e-18

Noise and Offset Calibrated: Y Acceleration

Updated Offset first 200 samples: 1.3322676295501878e-17

Noise and Offset Calibrated: Z Acceleration

Updated Offset first 200 samples: 9.159339953157541e-17

Velocities in X, Y, and Z

Location Trajectory