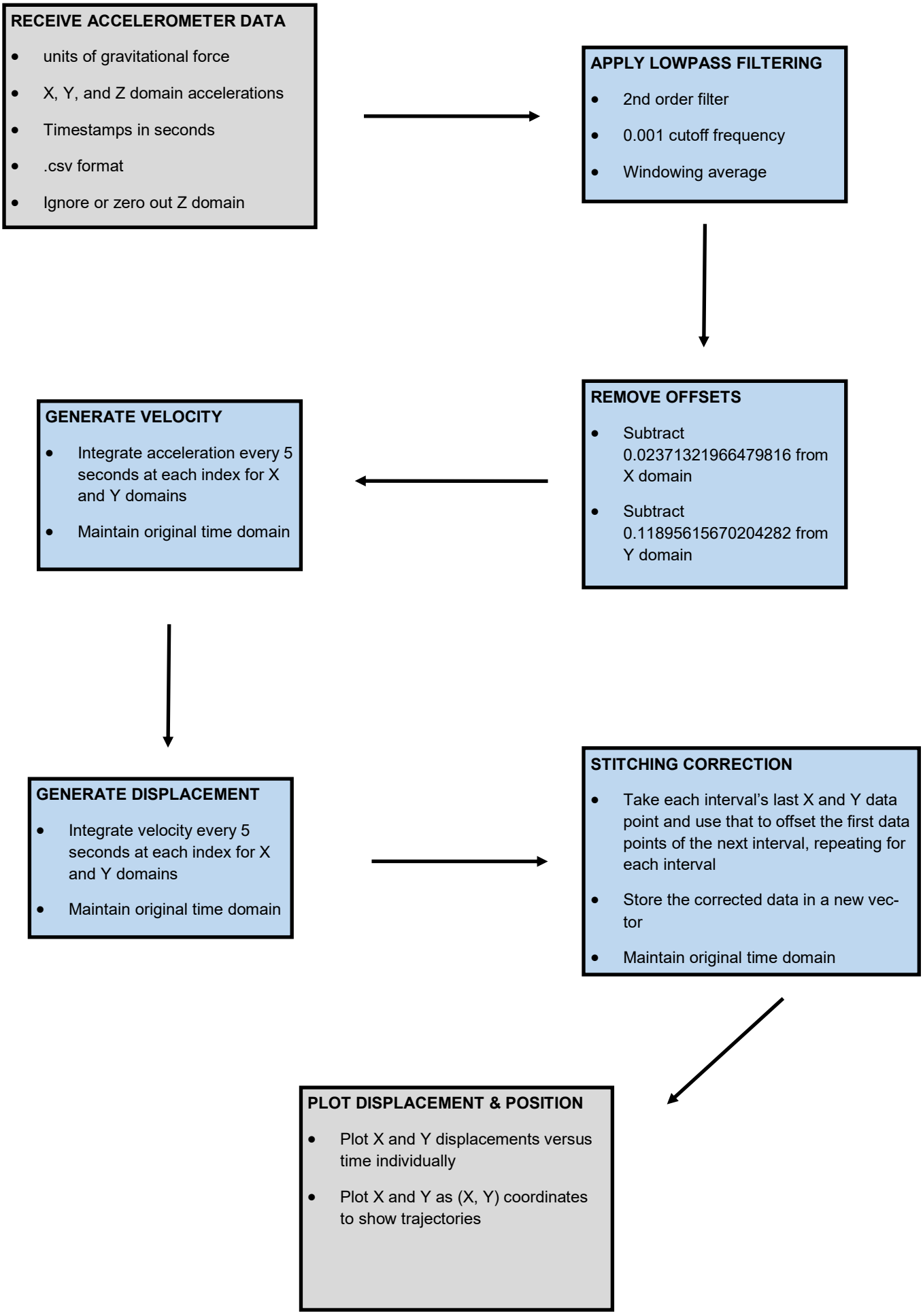
RECEIVE ACCELEROMETER DATA
units of gravitational force
X, Y, and Z domain accelerations
Timestamps in seconds
.csv format
Ignore or zero out Z domain
APPLY LOWPASS FILTERING
2nd order filter
0.001 cutoff frequency
Windowing average
REMOVE OFFSETS
Subtract 0.02371321966479816 from X domain
Subtract 0.11895615670204282 from Y domain
GENERATE VELOCITY
Integrate acceleration every 5 seconds at each index for X and Y domains
Maintain original time domain
GENERATE DISPLACEMENT
Integrate velocity every 5 seconds at each index for X and Y domains
Maintain original time domain
STITCHING CORRECTION
Take each interval's last X and Y data point and use that to offset the first data points of the next interval, repeating for each interval
Store the corrected data in a new vector
Maintain original time domain
PLOT DISPLACEMENT & POSITION
Plot X and Y displacements versus time individually
Plot X and Y as (X, Y) coordinates to show trajectories