The goal of this science project is to build a sequential estimation filter to track a target. My hypothesis is that I can build such a filter and tune it to produce a median error which is smaller than the median of the distance between the measured position and actual position of the target. The objects to be tracked will be constant velocity targets. I tune my filter by experimenting with values of "g" and "h". Initially, I estimate the target position and velocity. Using this estimation I run my program to create a prediction of the future target position. I then take a measurement (with small error) of the new target position. This leads to an update estimation of the target position and velocity. This cycle is repeated, leading to a fairly accurate representation of the target path. I then complete the tuning process for different amounts of error, different trajectories and different starting values for velocity and position.