

Combining matlab and physics

[Science](#)



The aim of using Matlab is to obtain precise and accurate results and to save time. According to Chapman (368), Matlab assists us to perform engineering and scientific calculations that were involved in the experiments because it is capable of solving any technical problem.

To obtain the movement of the platform with minimum shake we put some codes in Matlab and filtered that by some other codes. After obtaining the tilt angle in week one, we attempted three-dimension positioning by using a two-axis accelerometer mounted at the right angles and a three-axis accelerometer. The Matlab code used in week one was `w2-d-vector.m` which meant that you were to have a two-dimensional plot. In the second week, we used the Matlab code `w1-3d-vector` which meant that you were shown the Graphical demonstration of eigenvalues and singular values of three-dimension and `w2-3d-vector` which represented the Characteristic polynomial, eigenvalues, eigenvectors of the three-dimension vector

`w1-2d-vector.m`–graphic demonstration of eigenvalues and singular values on two dimensions

`w2-tilt-a-cacc.m` calculation of tilt using eigenvalues and singular values

`w2-servo-control.m`–

`w3-filtering.m`–

`w3-tilt-cacc.m`–calculation of tilt using

`w3-servo-control.m`

`w2motor.m`