

```
letter=readtable('M.txt') %%importing the data
plot(letter.X,letter.Y) %%visualize the data
figure; %%hold the figure
m=letter.X*1.5 %%to make the x axis line to 1.5
letter.X=m
axis equal %%make the axis equal
plot(letter.X,letter.Y)
figure;
%%normalize the data
letter.Time=(letter.Time-letter.Time(1))/1000 %%start time should be same
plot(letter.Time,letter.X)
plot(letter.Time,letter.Y)
figure;
dur=letter.Time(end) %%duration
aratio=range(letter.Y)/range(letter.X)
features=readtable("features.txt") %%read the data
scatter(features.AspectRatio,features.Duration) %%scatter plot
gscatter(features.AspectRatio,features.Duration,features.Character)
%%differentiate the character
knnmodel=fitcknn(features,"Character")
testdata=readtable("testdata.txt")
knnmodel=fitcknn(features,"Character","NumNeighbors",5)
predictions=predict(knnmodel,testdata) %%testing data
[predictions,testdata.Character]
incorrect=strcmp(predictions,testdata.Character)
accuracy=sum(incorrect)/numel(predictions)
confusionchart(testdata.Character,predictions)
```