clc

b1=imread('31z4NTX+UPL.\_SX342\_.jpg');

b1=b1(1:342,1:342,:);

bg=rgb2gray(b1);

B=im2bw(b1);

b=imresize(B,0.25625);

figure, imshow(b);

x1=[];

x2=[];

for i=1:88

for j=1:88

if b(89-i,j)==0

x1=[x1 89-i];

x2=[x2 j];

end

end

end

X=[x1' x2'];

idx =kmeans(X,2,'Start',[100 10;100 190]);

figure;

for i=1:size(X,1)

if idx(i)==1

plot(X(i,1),X(i,2),'or')

hold on

else

plot(X(i,1),X(i,2),'xb')

hold on

end

end

axis([1 205 1 205])

x = X;

t = idx-1;

net = perceptron;

net = train(net,x',t');

view(net)

plotpc(net.IW{1},net.b{1})