function [Filtered\_data] = filterbin(xyz, time)

%change sampling frequency here:

freq=75;

x=xyz(:,1);

y=xyz(:,2);

z=xyz(:,3);

[bx,ax]=butter(4,[.2,15]/(freq/2));

filtx=filter(bx,ax,x);

[by,ay]=butter(4,[.2,15]/(freq/2));

filty=filter(by,ay,y);

[bz,az]=butter(4,[.2,15]/(freq/2));

filtz=filter(bz,az,z);

filtered=[filtx,filty,filtz];

Filtered\_data=[time,filtered];