

```

% The mug that beats any other, even a Hotelie mug
% the mug uses knowledge of parametric equations. It even has a handle!
% This time...we poured a cup of our greatest Joe for you, and
% we are mixing it with our edible chocolate mixer.
% Enjoy!
%-----
hold off
theta=[0:.001:100*pi];
z= theta;
x=((theta./(100*pi)).^.25).*cos(theta);
y=((theta./(100*pi)).^.25).*sin(theta);
plot3(x,y,z)
xlabel('x axis')
ylabel('y axis')
zlabel('z axis')
title('Mug')
hold on
a=((theta-50*pi)./(50*pi)).^4-1.66;
b=(.66.*theta+sin(theta))+66;
c=.2.*cos(theta);
plot3(a,c,b)
e=((theta./(100*pi)).^1.01).*cos(theta);
f=((theta./(100*pi)).^1.01).*sin(theta);
d=(50.*sin(3.*theta.^(1.001))+50).^(theta./100./pi)+225;
plot3(e,f,d,'k')
g=.1.*cos(theta)+(theta)./100./pi;
h=.1.*sin(theta)+(theta)./2000./pi;
i=(theta)./pi.*2.25+200;
plot3(g,h,i)
axis tight

```