

```

function [out1] = VDPfunction(t,y,flag,P)
%
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%   y(1) ... position x
%   y(2) ... velocity dx/dt
out1(1)= y(2);
out1(2)= (P.mu/P.m)*(1-y(1)^2)*y(2) - (P.k/P.m)*y(1) +
(P.A/P.m)*sin(P.wr*t);
out1= out1';    % wants output as a column vector

```