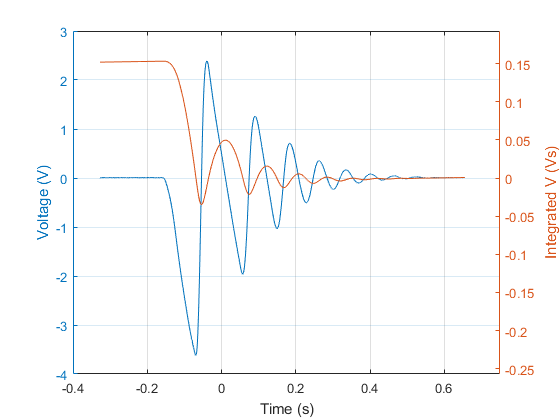
1. 
2. Motion of the mass:
   1. During free fall, the slope of the velocity is linear, indicating there is a constant force acting on it in the negative direction – the force of gravity
   2. During initial impact with the foam, the velocity is still negative but begins to increase towards the positive direction, indicating the foam slows down the mass and slowly accelerates it at constant force (damping force).