Spring-Mass Example

Fall 2004

This document describes the spring-mass system simulated in the spring-mass code available on the 16.07 website. It is shown in Figure 1.

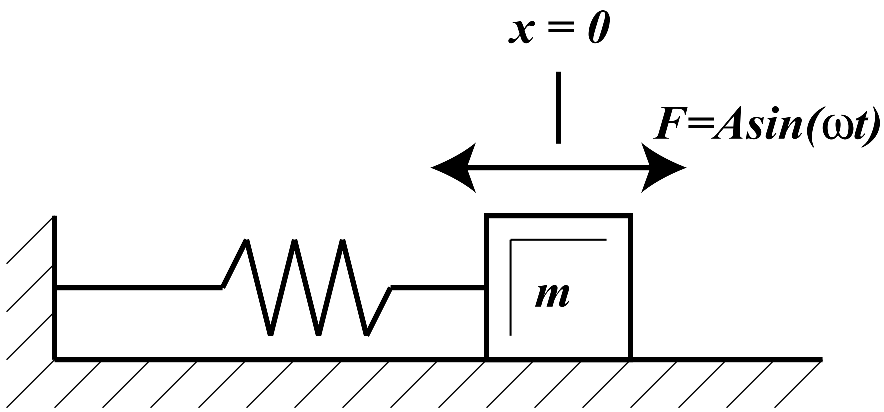

Figure 1: Spring-mass system

This is a linear system that can be represented by:

$$\ddot{x} + (k/m)x = (1/m)Asin(\omega t) \tag{1}$$

The applied sinusoidal force $Asin(\omega t)$ causes the mass to oscillate about the rest position $x = 0$. There is no damping in the system.