

Figure 1. Projectile fired at angle θ with velocity v_0 . After the initial firing, forces F_g , representing the force due to gravity, and F_a , the force due to air resistance, begin acting on the projectile.

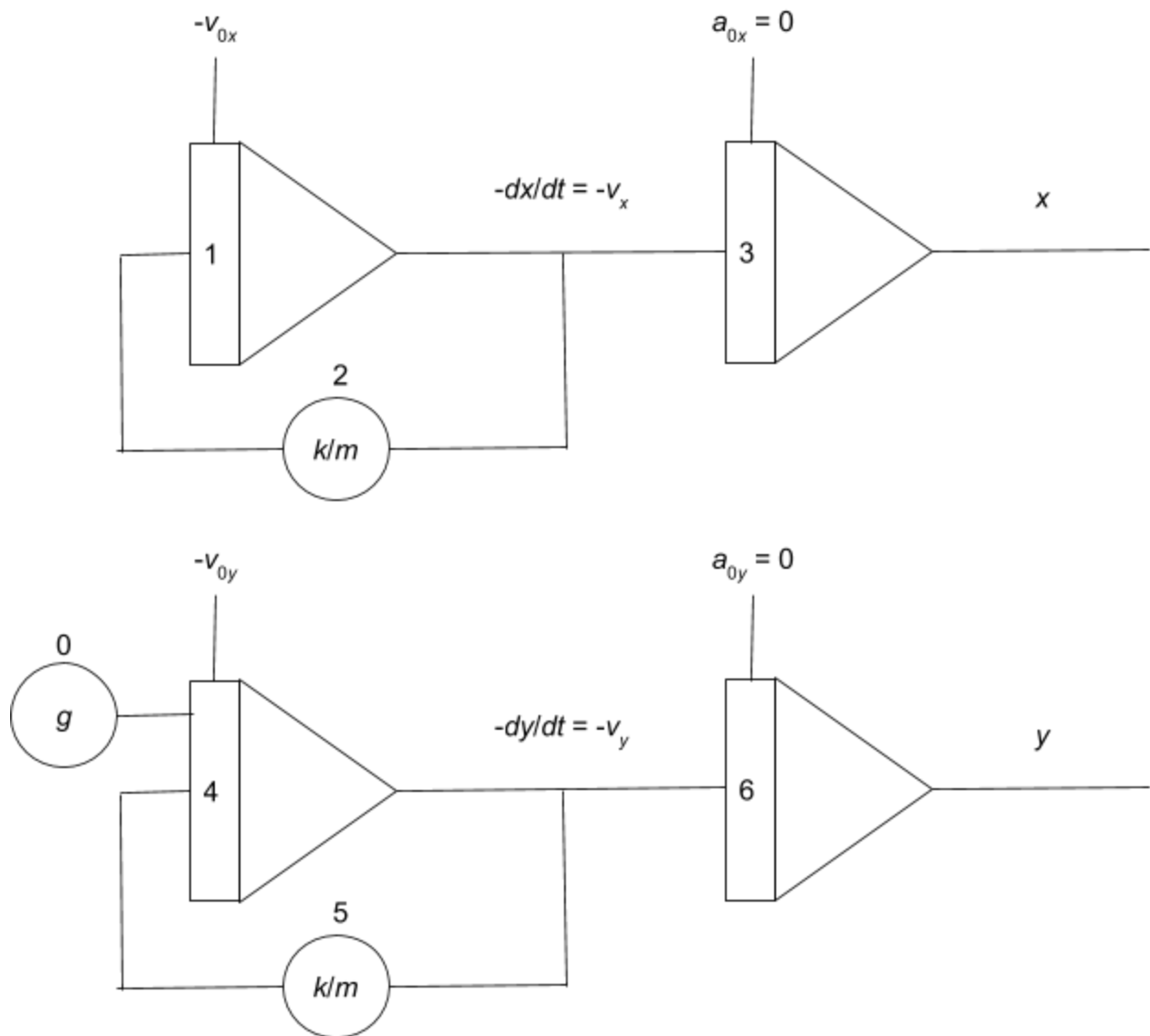


Figure 2. Diagrams representing an analog computer configuration for the above scenario. The upper diagram represents the equations in the x direction, and the lower one represents the equations in the y direction.

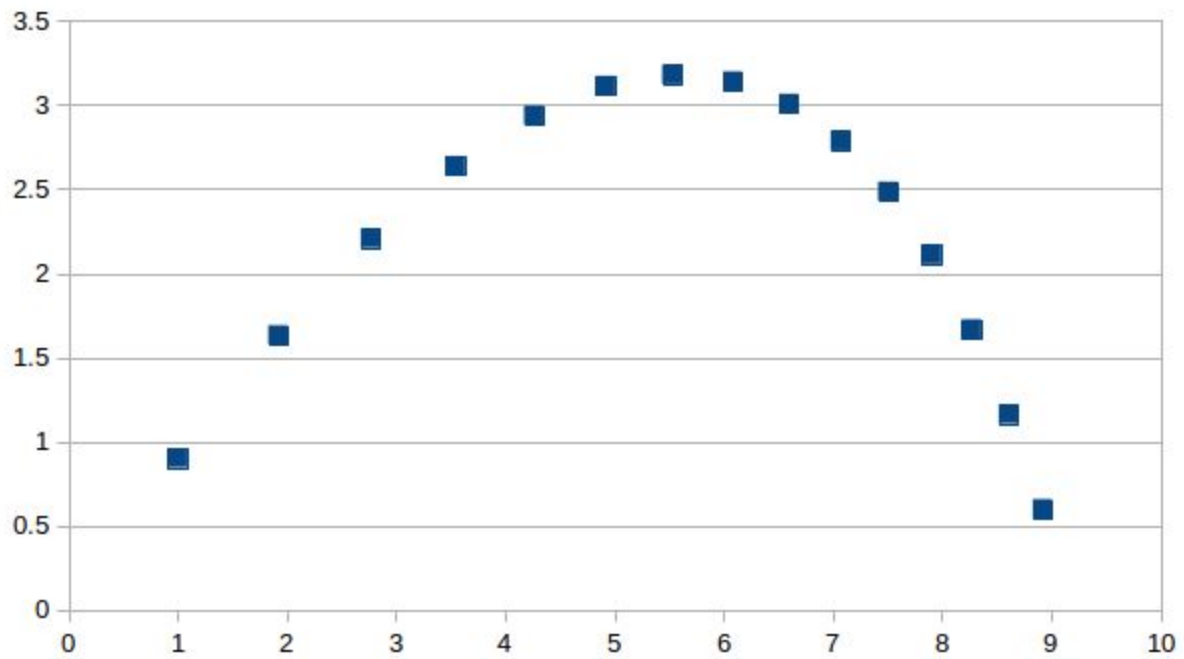


Figure 3. A sample run of the projectile simulator, of y vs. x , for the initial values $v_{0x} = 10$ m/s and $v_{0y} = 10$ m/s and the ratio $k/m = 0.8$. Though the file runs the simulation for forty time steps at 0.1 second increments, this graph only presents the data values for $y > 0$.