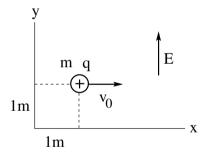
Particle Projected Perpendicular to Uniform Electric Field



A charged particle ($m=3 {
m kg},~q=1 \mu C$) is launched at $t_0=0$ with initial speed $v_0=2 {
m m/s}$ in an electric field of magnitude $E=6 \times 10^6 {
m N/C}$ as shown.



- (a) Find the position of the particle at $t_1 = 3s$.
- (b) By what angle does the velocity vector turn between $t_0 = 0$ and $t_1 = 3$ s?