

$$\begin{aligned}
 m &= 9.11 \times 10^{-31} \text{ kg} \\
 v_x &= 7.00 \times 10^6 \text{ m/s} \\
 q &= -1.6 \times 10^{-19} \text{ C}
 \end{aligned}$$

Use kinematics to find a :
(e^- is a projectile)

$$d_x = v_x \cdot t$$

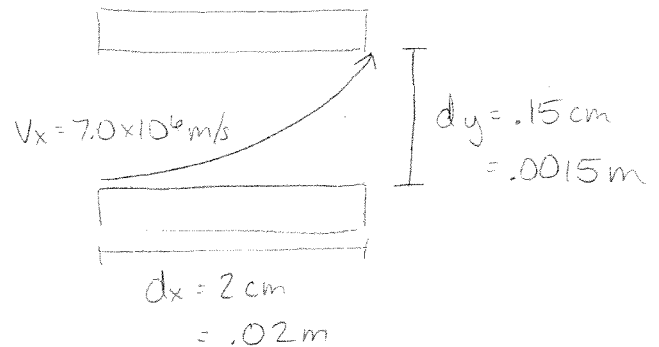
$$(.02 \text{ m}) = (7.0 \times 10^6 \text{ m/s}) \cdot t$$

$$t = 2.86 \times 10^{-9} \text{ sec}$$

$$d_y = \frac{1}{2} \cdot a \cdot t^2$$

$$(.0015 \text{ m}) = \frac{1}{2} \cdot a \cdot (2.86 \times 10^{-9} \text{ sec})^2$$

$$a = 3.675 \times 10^{14} \text{ m/s}^2$$



Find F_e :

$$\begin{aligned}
 F_e &= m \cdot a \\
 &= (9.11 \times 10^{-31} \text{ kg}) (3.675 \times 10^{14} \text{ m/s}^2)
 \end{aligned}$$

$$F_e = 3.35 \times 10^{-16} \text{ N}$$

Find E :

$$E = \frac{F_e}{q_0} = \frac{(3.35 \times 10^{-16} \text{ N})}{(1.6 \times 10^{-19} \text{ C})}$$

$$E = 2090 \text{ N/C}$$