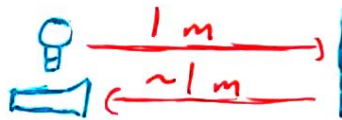


RANGE FINDER CAMERA

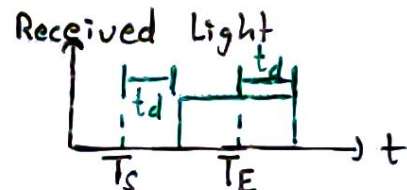
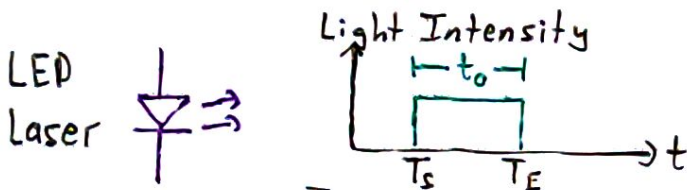
Otherwise known as LIDAR.



Can we use light?

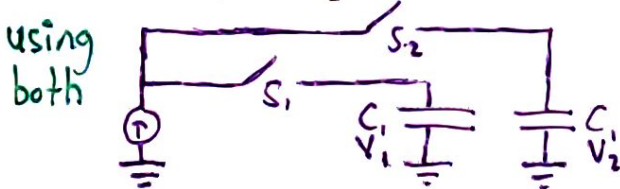
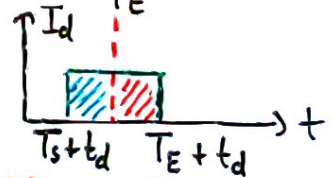
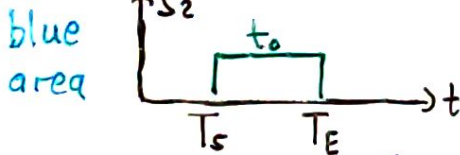
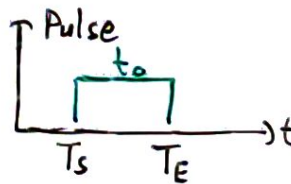
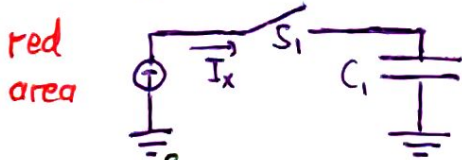


$$t = \frac{2D}{c} = \frac{2}{c} = 6.7 \times 10^{-9} \text{ sec}$$



$$q_1 = t_d \cdot I_x = \frac{2d}{c} \cdot I_x$$

how to measure?



$$\left. \begin{aligned} q_1 &= t_d \cdot I_x = \frac{2D}{c} \cdot I_x \\ V_1 &= I_x \cdot t_d / C_1 \\ q_2 &= I_x (t_0 - t_d) \\ V_2 &= I_x / C_2 (t_0 - t_d) \end{aligned} \right\} \text{solve!}$$

$$D = \frac{c \cdot t_0}{2} \cdot \frac{V_1}{V_1 + V_2}$$

End of Module 2.