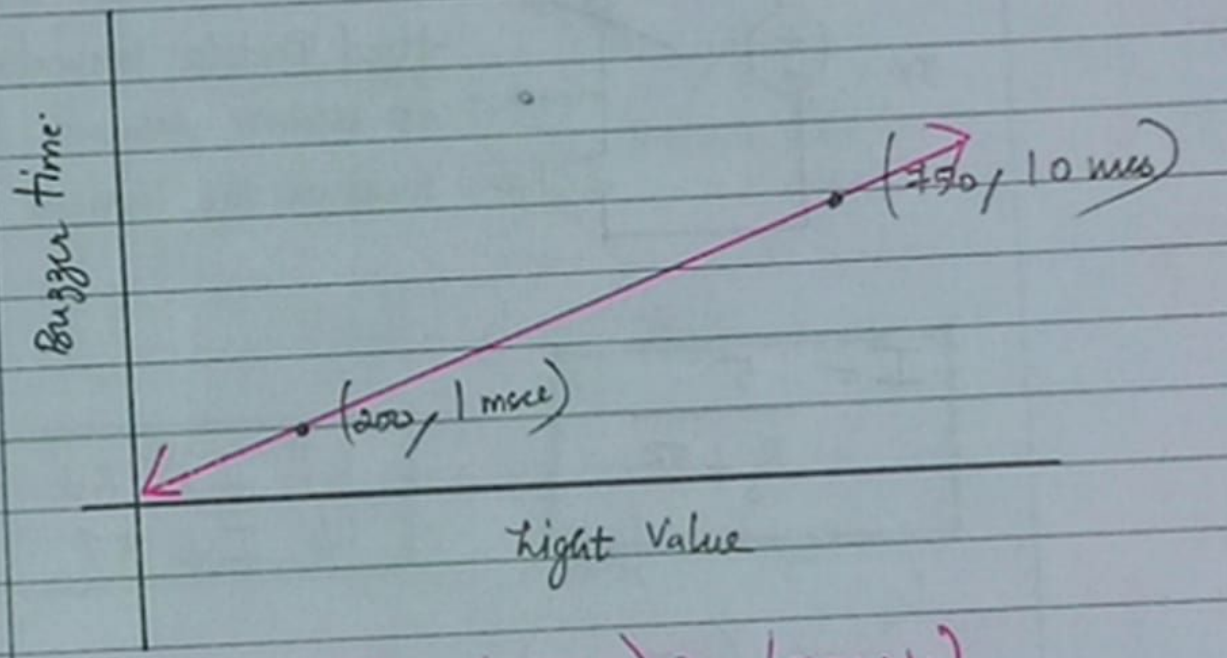
__/__/____

Module -28

To generate a smooth sound based on light intensity

Light Value : 750 (ON)
Light Value : 200 (OFF)
Starts 1msec : 1msec (1)
End 10msec : 10msec (10)

using line Equation



We got points (200/1) & (750/10)

$$\left(\begin{matrix} LV_1 , TV_1 \\ 200 / 1 \end{matrix}\right) , \left(\begin{matrix} LV_2 , TV_2 \\ 750 / 10 \end{matrix}\right)$$

$$\text{slop} = \frac{10-1}{750-200} \Rightarrow \frac{9}{550} = 0.016$$

$y - y_1 = m(x - x_1)$

$y - 1 = 0.016\,(x - 200)$

$y = 0.016\,kV - 0.016 * 200 + 1$

$Tv_2 = 0.016\,kV - 0.016 * 200 + 1$

Tone Value $= 0.016\,kV - 3.2 + 1$

Tone Value $= 0.016\,kV - 2.2$