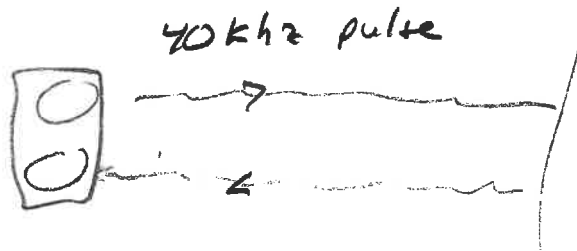


Hc-SR04 operation



duration = total time in μs

$$d = v \cdot t$$

$$v_{\text{sound}} = 343 \text{ m/s}$$

$$d = .0343 \left(\frac{\text{duration}}{2} \right)$$

$$343 \text{ m/s} \cdot \frac{10^2 \text{ cm}}{1 \text{ m}} \cdot \frac{1 \text{ s}}{10^6 \mu s} = .0343 \text{ cm}/\mu s$$

Code : duration = pulseIn (echoPin, HIGH)
distance = (duration / 2) / 29.1