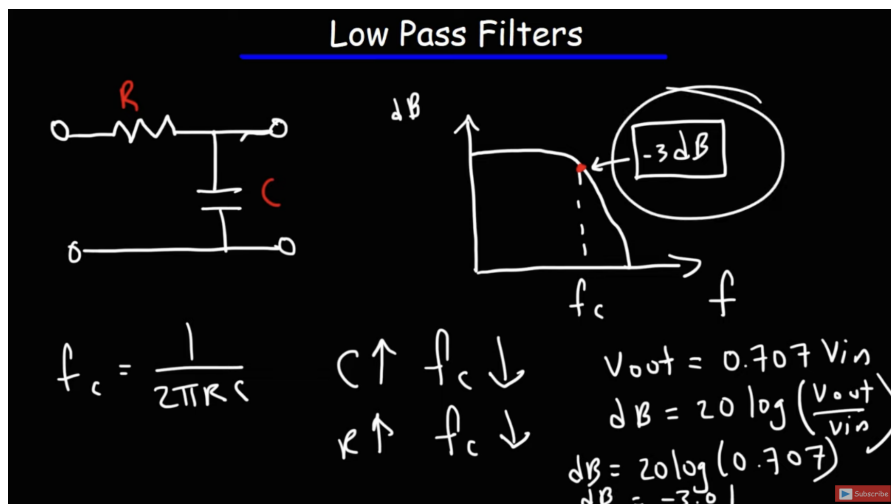
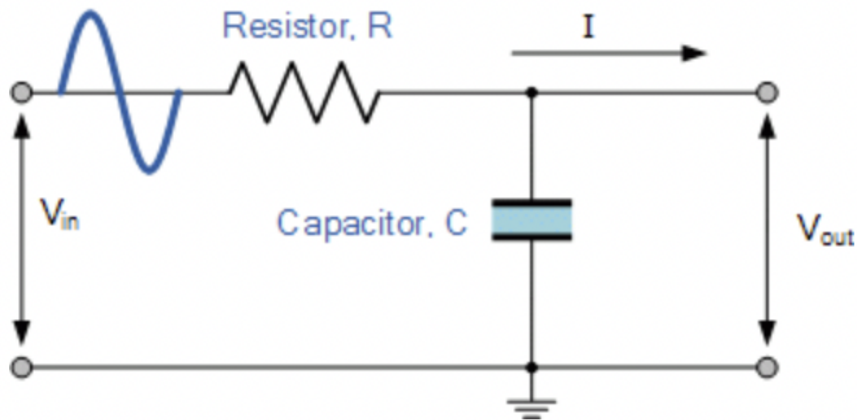


Low Pass Filter

The low pass filter only allows low frequency signals from 0Hz to its cut-off frequency, f_c point to pass while blocking those any higher.



To create a low pass filter with a frequency cutoff of 1000 Hz, we can use the following formula to determine our capacitor value based on the chosen resistance.

$$R=47$$

$$f_c=1000$$

$$f_c = 1/(2RC)$$

$$C=1/(2Rf_c) = 1/(2*1000*47) = 3.3 \text{ F}$$

<http://www.learningaboutelectronics.com/Articles/Low-pass-filter-calculator.php#answer1>

