Filters: For this lab you will be constructing three Passive filter circuits.

1.) Construct the circuit in figure 1 on your breadboard
2.) Using the function generator and Oscilloscope find the Cutoff Frequency for the lowpass filter. Simulate in LTSpice to verify your results.

3.) Construct the circuit in figure 2 on your breadboard
4.) Using the function generator and Oscilloscope find the Cutoff Frequency for the Highpass filter. Simulate in LTSpice to verify your results.

5.) Given the circuit in figure 3 calculate the values of the resistor and the capacitor needed for the Bandpass filter to have the following specs.
   a.  $Q = 100$
   b.  $\omega_o = 100$Khz

6.) Construct the circuit above on your breadboard.
7.) Using the function generator and Oscilloscope verify your center frequency, find $\omega_1, \omega_2$ and calculate the bandwidth. Simulate in LTSpice to verify your results.