PRELAB
1. Derive Equation (2.55) of the textbook.
2. Simulate the single-transducer circuit with linear response (see Figure 2.40 of the textbook) by using LM 324 opamp with ±12 V supply, i.e., for R=5.1 k sweep from -0.8 to 50. Plot $v_o$ vs __.

LAB PROCEDURE
1. Construct the transducer circuit using a photoresistor.
2. Calibrate the circuit to obtain 0 V output.
3. Record the output voltage for dark, low-light and bright-light conditions.
4. Connect the following circuit to the transducer output and change the level of light on the photoresistor. Comment on the results.

![Circuit Diagram]