
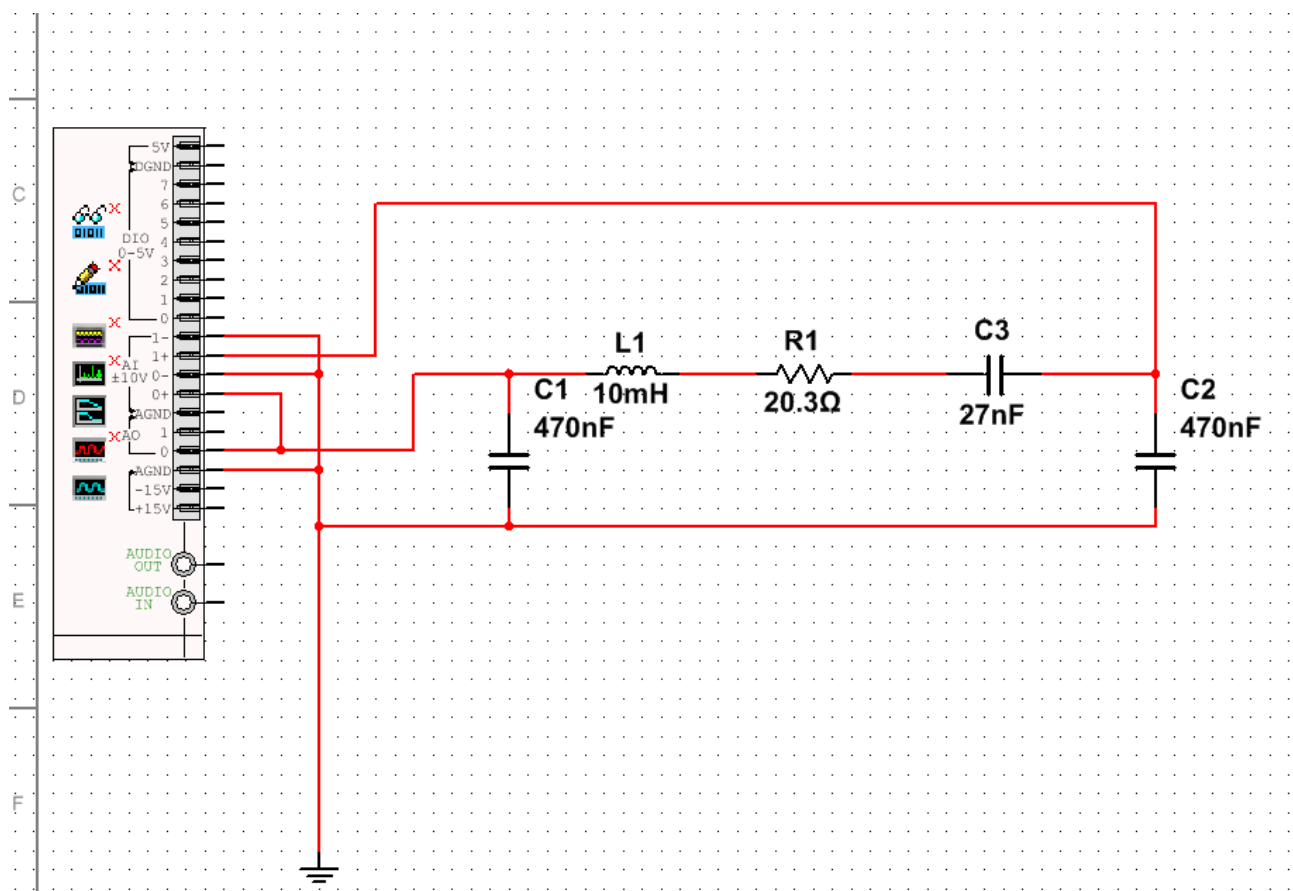




Phase-shifter circuit

Your task is to work with a phase-shifter circuit. You are expected to simulate and measure the circuit with Multisim and myDAQ. In the Wednesday session you are expected to demonstrate your circuit in action and answer to questions related to its functioning.

1. Select File -> New -> NI myDAQ design. Construct the following circuit. To start a wire in the middle of another wire, you'll first need to add a junction,  , with Ctrl + J.



2. Right-click the function generator icon  on the myDAQ and select "NI myDAQ instrument enabled in simulation" to enable it. The red "X" disappears.
3. Double-click the bode analyzer icon  . A new window appears.
Set: Start frequency: 5 kHz, Stop frequency: 20 kHz, Steps: 100 per decade.
4. Select "Simulate" -> "Run". The simulated response is shown.
5. Select "Simulate" -> "Stop".
6. Build the circuit on the breadboard.
7. In the Bode Analyzer window, select Device: myDAQ1 and press Run.
8. Once you have the circuit successfully running, check how varying the value of R1 affects on the response.