Prelab 2

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Edit Note(from lab report): Correct values were given once swapping which pins got negative or positive power. (Is opposite of pinout)

In lab, the Oscilloscope value had to be obtained from V_{RMS} given by MM multiplied by 2sq(2)

Part 1:inverting op-amp

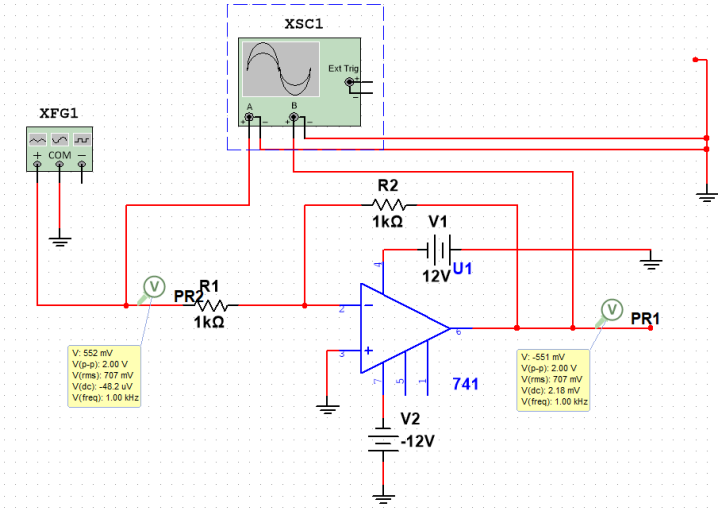

Figure 1. Inverting op-amp circuit diagram

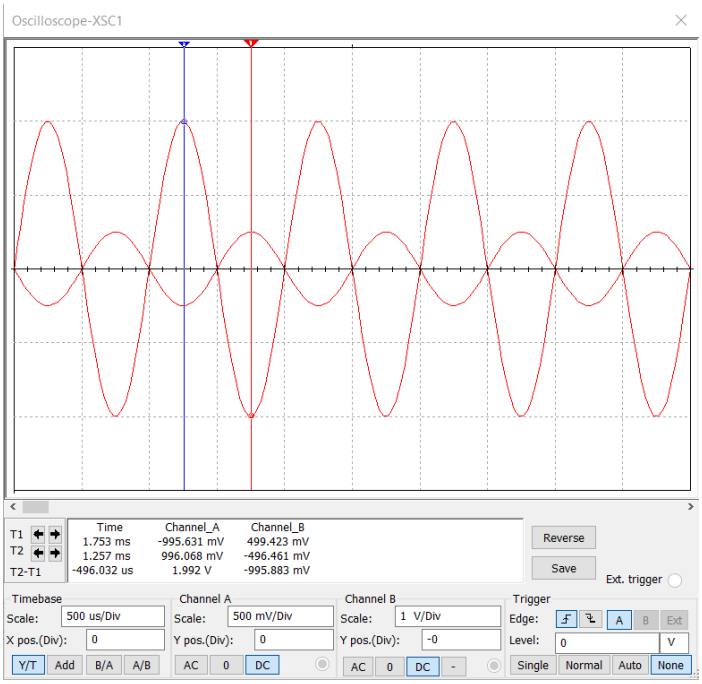

Figure 2. Input and output waveforms for Figure 1

Table 1. Simulation results for inverting op-amp

V_{INpp}(V)	R_{IN} (kΩ)	R_F (kΩ)	V_{OUTpp} (V) O-Scope	Gain (v/V)	V_{OUTrms} (V) DMM
2	1	0.5	-0.996	-0.498	0.354
		1	-1.994	-0.997	0.707
		2	-3.984	-1.992	1.41
		3	-5.972	-2.986	2.12
		4	-7.962	-3.981	2.83

Part 2:non-inverting op-amp

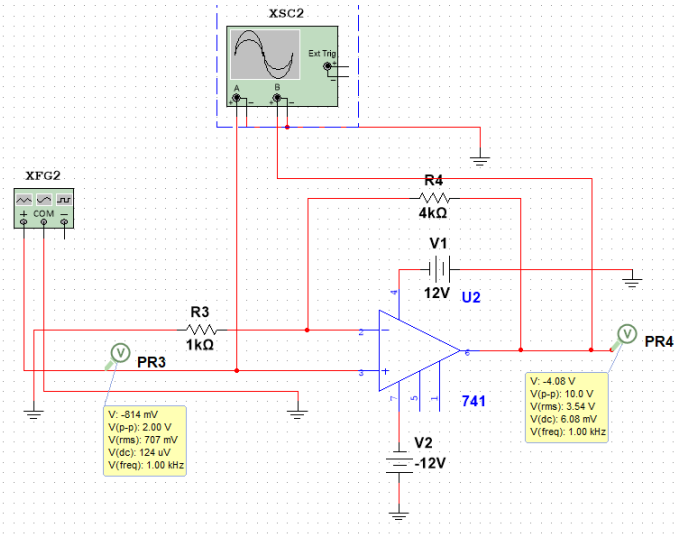

Figure 3. Non-inverting op-amp circuit diagram

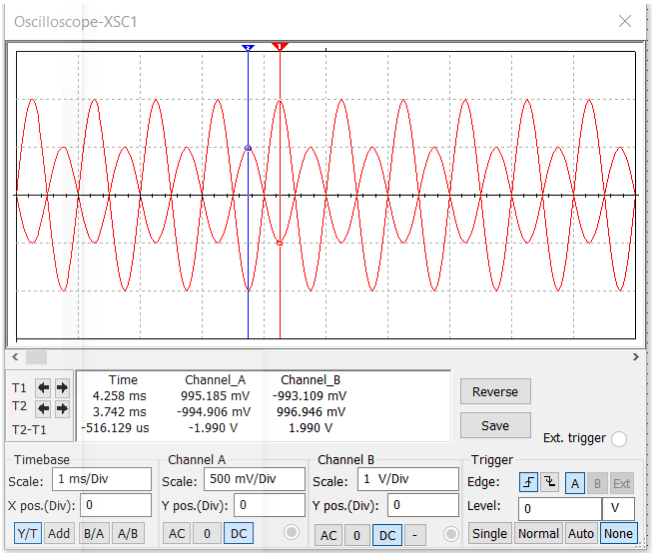

Figure 4. Input and output waveforms for Figure 3

Table 2. Simulation results for non-inverting op-amp

V_{INpp}(V)	R_{IN} (kΩ)	R_F (kΩ)	V_{OUTpp} (V) O-Scope	Gain (v/V)	V_{OUTrms} (V) DMM
2	1	0.5	2.987	1.494	1.06
		1	3.982	1.991	1.41
		2	5.974	2.987	2.12
		3	7.982	3.991	2.83
		4	9.987	4.994	3.54