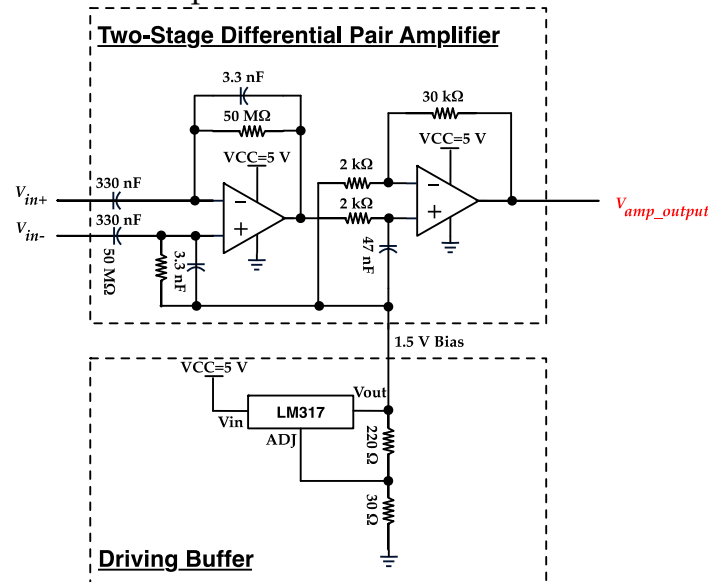


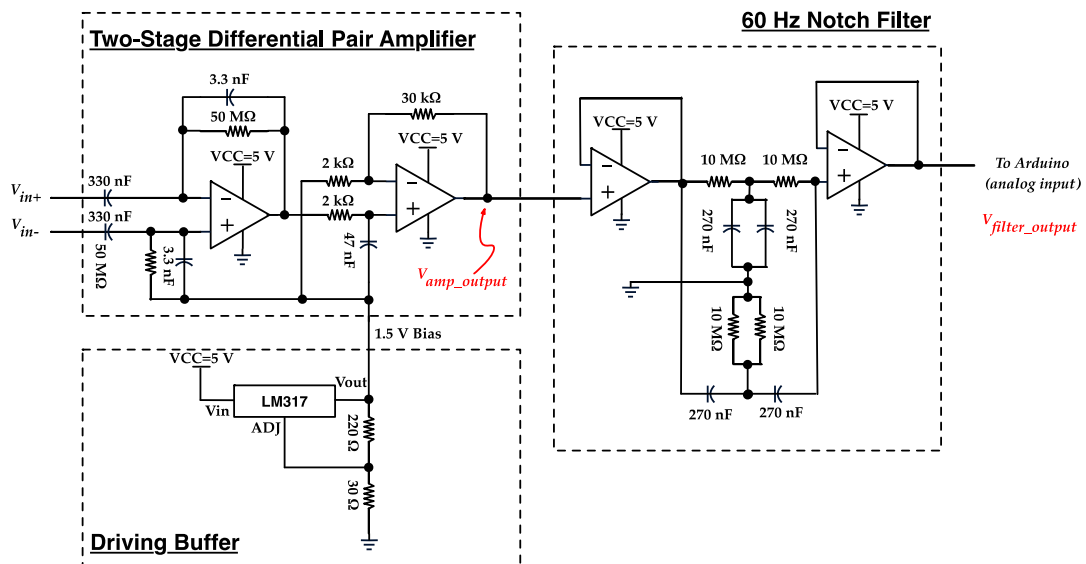
## Lab 2: ECG Circuits, Signal Sampling and Digitalization

- 1 Following the schematic Fig. (a) below, build the ECG signal amplification circuits with the provided circuit elements. Capture and describe the waveform at this stage.



(a) ECG signal amplification circuits.

- 2 To remove the 60-Hz power noise, we can add a notch filter after the amplifier output. Capture and describe the waveform at this stage. Compare the output signal with that of  $V_{amp\_output}$ .



(a) ECG signal amplification circuits.

- 3 Connect the above circuitry ( $V_{filter\_output}$ ) with Arduino platform. We use the ADC in Arduino for the signal digitization. With the provided sample codes, you can

save/monitor the ECG signals from a PC.

**TA:** \_\_\_\_\_