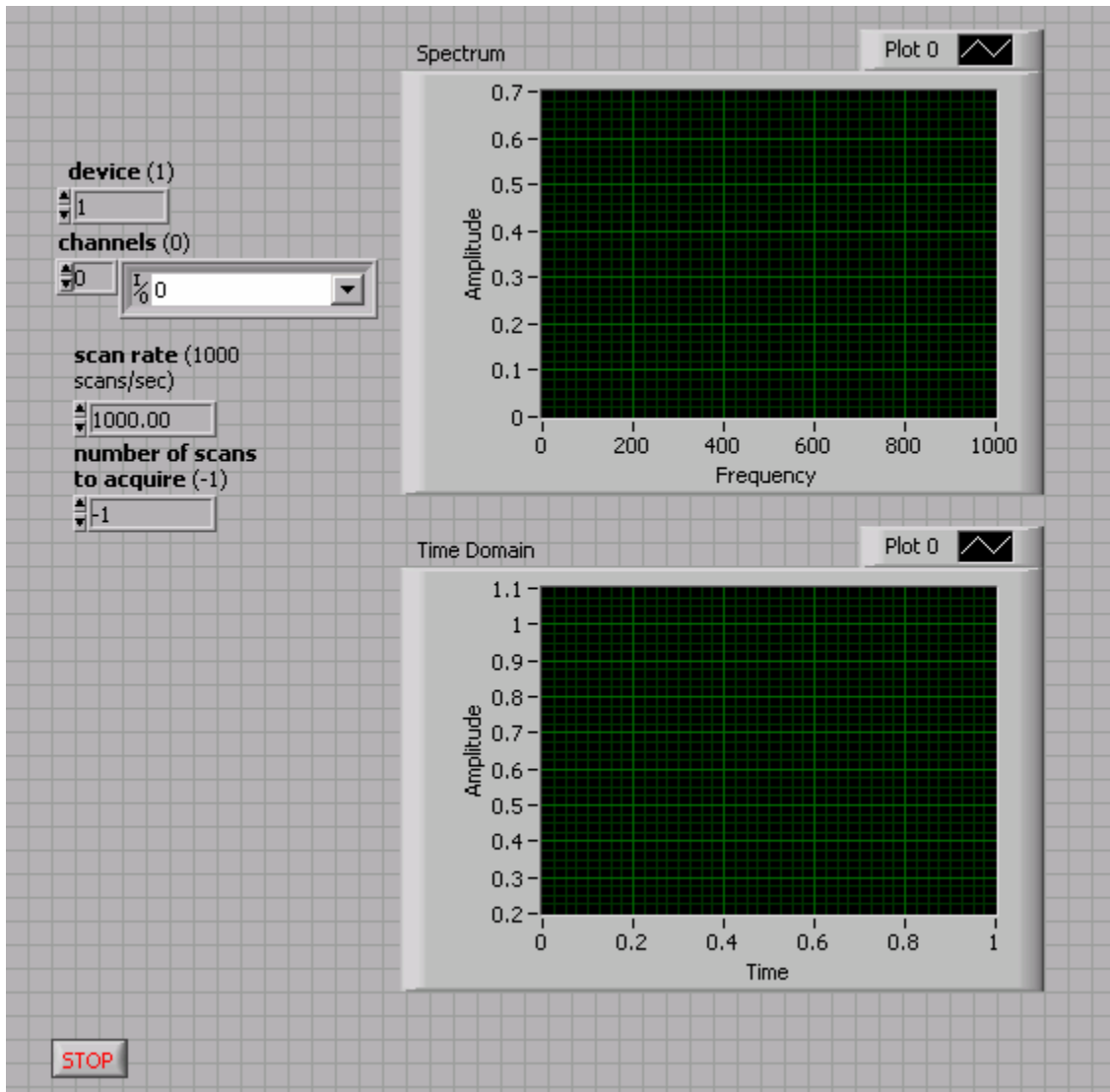


Connecting to the Real World

1. Using the VI you built from the last lab, modify it to add the D-to-A VIs to capture data on Device 1, Channel 0. This data will be displayed on the time domain waveform graph and frequency (spectrum) domain waveform graph used in the previous lab. The following front panel shown following is an example of how your Front Panel should appear.



2. Connect Channel 0 on the D-to-A card to the signal generator and display a 60 Hz sine wave to make sure that your VI is operating properly. That is, you will see the 60 Hz waveform on the time domain display while a single spike will appear on the spectrum.
3. Once this is working, now change the frequencies to see that the spectrum following the frequency changes.

4. Collect several example of the sine for various frequencies. Include example of oversampling and undersampling.
5. Change the signal generator to display squares and repeat item 4.
6. Connect an ECG simulator to the differential amplifier and then connect the amplifier to Channel 0. Observe and collect various displays for the ECG signal. What frequencies dominate the ECG signal?