ECG Data Acquisition Using a Sound Card

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Abstract

This project is to implement a data acquisition system using a sound card for electroencephalography (ECG) signals. The ECG data acquisition systems is composed of two primary components: data acquisition and graphical user interface (GUI). The data acquisition component consists of two main parts including instrumentation amplifier and filter. The sound card performs the analog-to-digital conversion. The GUI component is developed using the JAVA language. A user can open, save and edit the ECG signal acquired using the system. In addition, there are two channels of data acquired by the system