Inexpensive Electronics for the Teaching Lab

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1. Design & Construction

Amplifier

The design is based on the FP1093 op amp. The student laboratory should have the following characteristics: (1) gain of 15 and (2) 100 kΩ, providing an input stage. The design includes a computer and oscilloscope. This is a practical alternative to commercial units. A home-made amplifier must also be significantly less expensive, had high input impedance and operate with a variety of electrode types, and (7) noise performance is always better. Section 5 is a preamp for the recording electrode.

2. Performance

The device’s input resistance is high enough to use with a range of electrode types, including microelectrodes, including a 2-mm tip and a 10-nS tip. The output resistance is lower than the input stage. The design includes a computer and oscilloscope. This is a practical alternative to commercial units. A home-made amplifier must also be significantly less expensive, had high input impedance and operate with a variety of electrode types, and (7) noise performance is always better. Section 5 is a preamp for the recording electrode.

STIMULUS ISOULATION UNIT

The SIU consists of three sections: (1) input, which includes capacitors and variable resistors; (2) gain and filter, which includes capacitors and variable resistors; and (3) low internal noise, which includes capacitors and variable resistors. These sections are the same for both inputs. There is no obvious difference in the quality of the three sections.

STIMULUS CONTROL

The SIU described here was controlled by a computer. The stimulator is an EEG stimulator. The computer controlled the SIU and a computer-generated stimulus. The computer controlled the SIU and a computer-generated stimulus. The computer controlled the SIU and a computer-generated stimulus. The computer controlled the SIU and a computer-generated stimulus.

1. Analog Circuitry

The circuit uses a S100 chip described in Moreland et al., 1990. The circuit consists of the following: (1) a DC amplifier for the experimental variable that is a constant, and (2) an SIU for the teaching lab. The circuit consists of the following: (1) a DC amplifier for the experimental variable that is a constant, and (2) an SIU for the teaching lab. The circuit consists of the following: (1) a DC amplifier for the experimental variable that is a constant, and (2) an SIU for the teaching lab. The circuit consists of the following: (1) a DC amplifier for the experimental variable that is a constant, and (2) an SIU for the teaching lab. The circuit consists of the following: (1) a DC amplifier for the experimental variable that is a constant, and (2) an SIU for the teaching lab. The circuit consists of the following: (1) a DC amplifier for the experimental variable that is a constant, and (2) an SIU for the teaching lab. 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