Stoelting EDA Measurement and Data Acquisition

Stoelting's CPS Pro:

- Type of circuits used.
 - Skin Resistance Constant current
 - Excitation: Current: 2.5uA
 - Measurement Unit: Ohms
 - Skin Conductance Constant Voltage
 - Constant voltage: .5v
 - Excitation: Current Limited: 5uA
 - Measurement Unit: micro siemens(uS)

- Recommended Electrode Type:

- Laboratory-style finger contoured Ag-AgCl Electrodes. * Requires skin conductance electrode paste.
- Skin Potential snap leads for pre-gelled adhesive electrodes. Pre-Gelled repositionable disposable electrodes for EDA
- Gold Plated Medical grade Swiss-precision LEMO connectors and low resistance wires to improve signal quality.

- Recommended Electrode Placement:

- **Palmar Surface of the Fingers:** One of the most common and reliable sites for EDA measurement is the palmar surface of the fingers, particularly the index and ring fingers. This area is preferred because of the high density of eccrine sweat glands, which are responsible for producing sweat in response to emotional stimuli.
- **Palmar Surface of the Hand:** Another common site is the palm of the hand. The thenar and hypothenar eminences (the raised areas at the base of the thumb and little finger) are also suitable areas due to their high sweat gland density.

- Filtering:

- o Hardware
 - Low Pass filter: 4Hz
- o Software:
 - 2-pole Butterworth filter with a 0.44Hz cutoff is applied.
 - A rolling average is then computed every 90 samples.
 - Optional filtering can be applied to remove drift using a high-pass filter with a 0.0159Hz cutoff.

Sample Rate:

o 60hz

EDA

Measurement and Data Acquisition

Stoelting's CPS Elite:

- Type of circuits used.
 - Skin Resistance Constant current
 - Excitation: Current: 2.5uA
 - o Measurement Unit: Ohms
 - Skin Conductance Constant Voltage
 - Constant voltage: .5v
 - Excitation: Current Limited: 5uA
 - Measurement Unit: micro siemens(uS)

- Recommended Electrode Type:

- Laboratory-style finger contoured Ag-AgCl Electrodes. * Requires skin conductance electrode paste.
- Skin Potential snap leads for pre-gelled adhesive electrodes. Pre-Gelled repositionable disposable electrodes for EDA
- Gold Plated Medical grade Swiss-precision LEMO connectors and low resistance wires to improve signal quality.

- Recommended Electrode Placement:

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- Filtering:
 - o Hardware
 - Low Pass filter: 4Hz
 - o Software:
 - 2-pole Butterworth filter with a 0.44Hz cutoff is applied.
 - A rolling average is then computed every 90 samples.
 - Optional filtering can be applied to remove drift using a high-pass filter with a 0.0159Hz cutoff.

Sample Rate:

o 360hZ