GSR Shimmer



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Agenda

- What is GSR?
- How does it work?
- What is the GSR Shimmer about?
- Relation to the project

What is GSR?

"Galvanic skin response"

- Marker for emotional arousal and stress
- Measures changes in skin conductance
- Based on sweat secretion
- Highest sweat glands in hand and foot region
- \rightarrow 200 600 sweat glands per cm²
- "The higher the arousal the higher the skin conductance!"
- Positive and negative stimuli can result in an increase in arousal

Measure emotional arousal & stress by measuring changes in the conductivity of the skin



How does it work?

- captured using skin electrodes (like shimmer)
- Recieve sampling rates between 1-10 Hz
- 1. Place two electrodes on emotionally sensitive locations on the body
- 2. Apply a low constant voltage
- 3. Measure the voltage difference between the two electrodes
- 4. Report the associated skin conductance

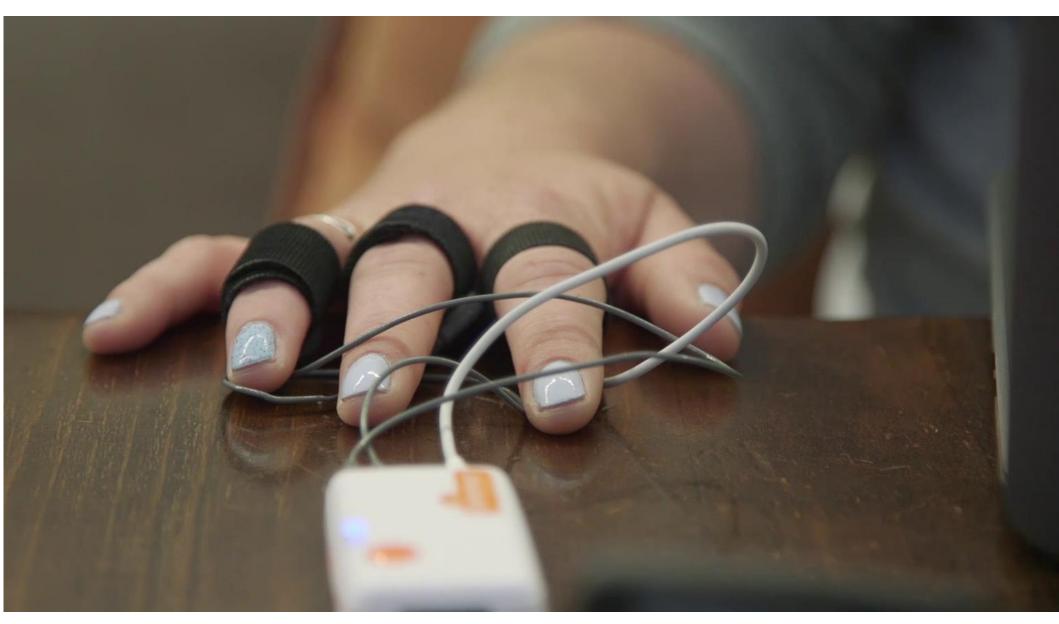
Shimmer3 GSR+ Unit

"EDA → electro-dermal activity"

- is a wearable wireless sensor product
- measures the galvanic skin response on one channel
- can show you your heart rate by ear clip
- signal is preamplified and can stream directly into a pc

Accessories included:

- Optical Pulse Sensing Probe (Finger)
- Optical pulse sensors (Earlobe)
- GSR+ Electrodes (x2)
- Biophysical 9" leads (x2)
- 1x Wrist Strap



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Realtion to our project

