

# Galvanic Skin Response(GSR)

## Description

GSR stands for galvanic skin response and it is a method of measuring the electrical conductance of the skin. Strong emotions can cause stimulus to your sympathetic nervous system, resulting more sweat being secreted by the sweat glands.

The output is given as the voltage that varies as the resistance of the skin changes due to sweat produced by the sweat glands,

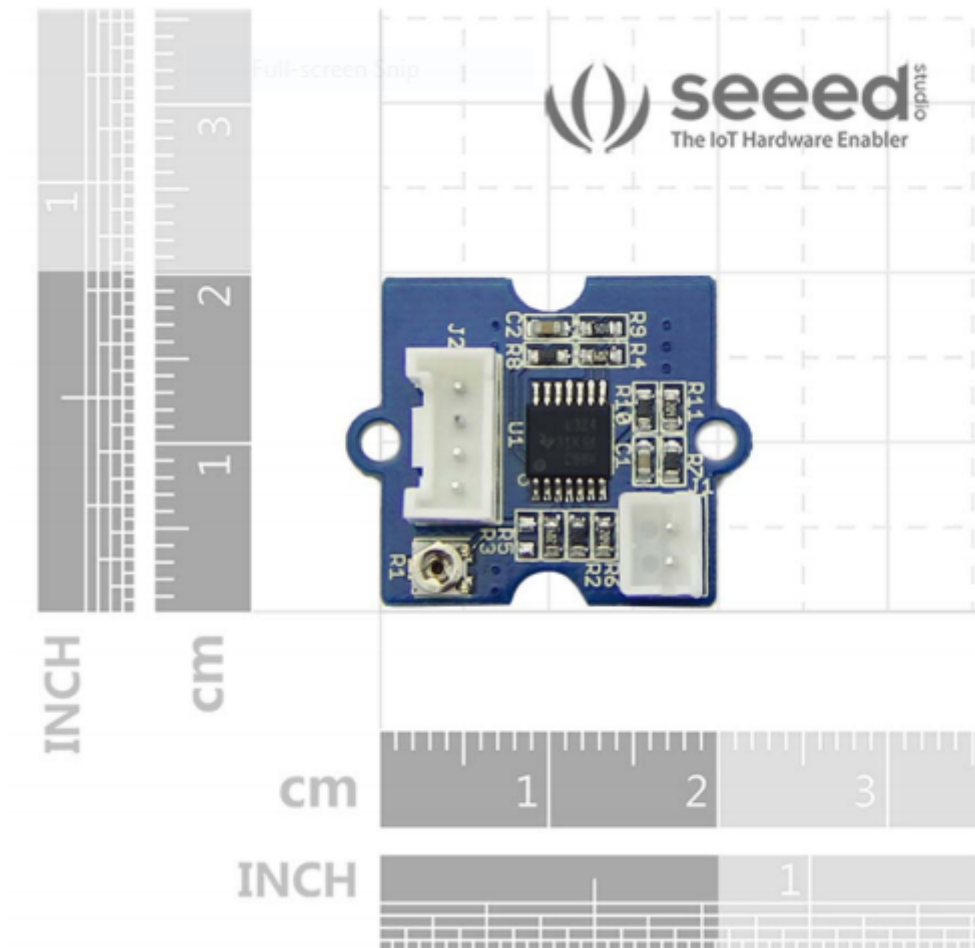
$$HumanResistance = \frac{((1024 + 2 * Serial Port Reading) * 1000)}{(512 - SerialPortReading)}$$

(serial port reading is value displayed on serial port(0~1023))

## Why GSR

GSR allows you to spot such strong emotions by simply attaching two electrodes to two fingers on one hand. It is an interesting gear to create emotion related projects like sleep quality monitor.

Features	Brief
Manufacturer	Seeed Studio
Dimensions	24mm x 20mm x9.80mm
Battery	Exclude
Signal Conditioning	Include
Input Voltage	5V/3.3V
Output	Voltage (Analog)
Sensitivity	Adjustable via potentiometer
RoHS	Complaint
Finger Contact Material	Nickel
Cost	INR 1046.96 inc. GST



## Reference

[1]B. Zuo, "Grove - GSR Sensor - Seeed Wiki", *Wiki.seeedstudio.com*, 2020. [Online]. Available: [https://wiki.seeedstudio.com/Grove-GSR\\_Sensor/](https://wiki.seeedstudio.com/Grove-GSR_Sensor/). [Accessed: 22- Nov- 2020].