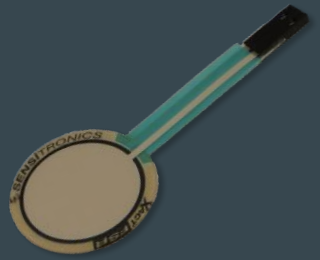
PROPRIO SCALE

https://www.emaze.com/@ALRCFCFT/Tema-6

Human VS FSR

...



http://www.sensitronics.com/products-fsr.php

Daphné, Clément Ca, Léonie

@Proprioscale

01/02/16
Biosensors

To what extend are the human and the FSR similar?

cdn.pixabay.com

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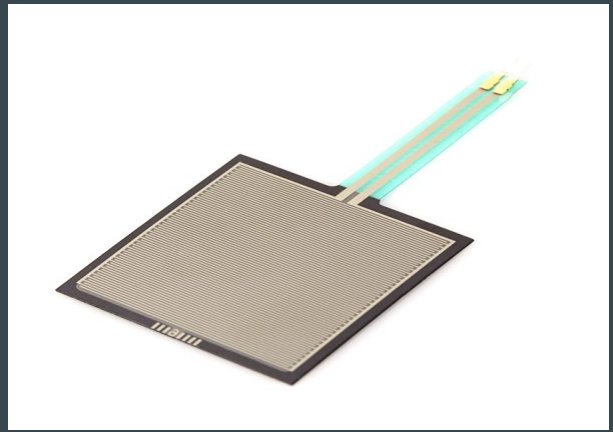
wikimedia.org

Overview : sensors characteristics

Merkel cells : sensitive to pressure variations

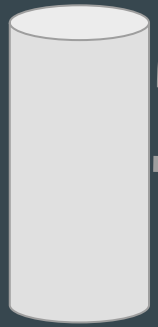
Force sensitive Resistor (FSR)
resistive value => pressure
100g-10kg



sparkfun.com/

Method to record data

5 Weights to estimate



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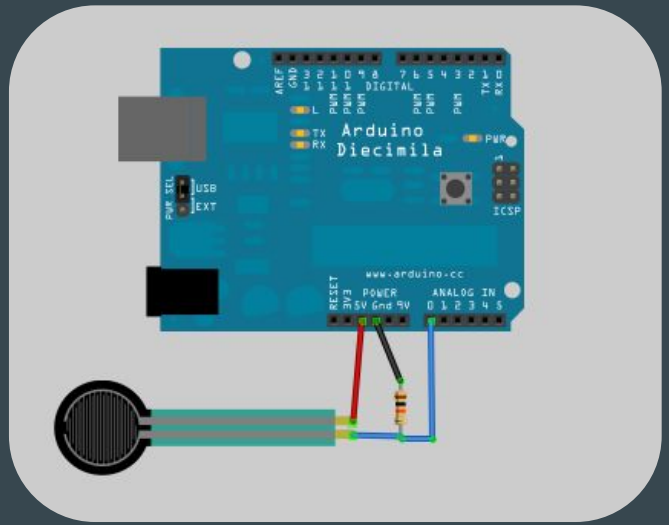
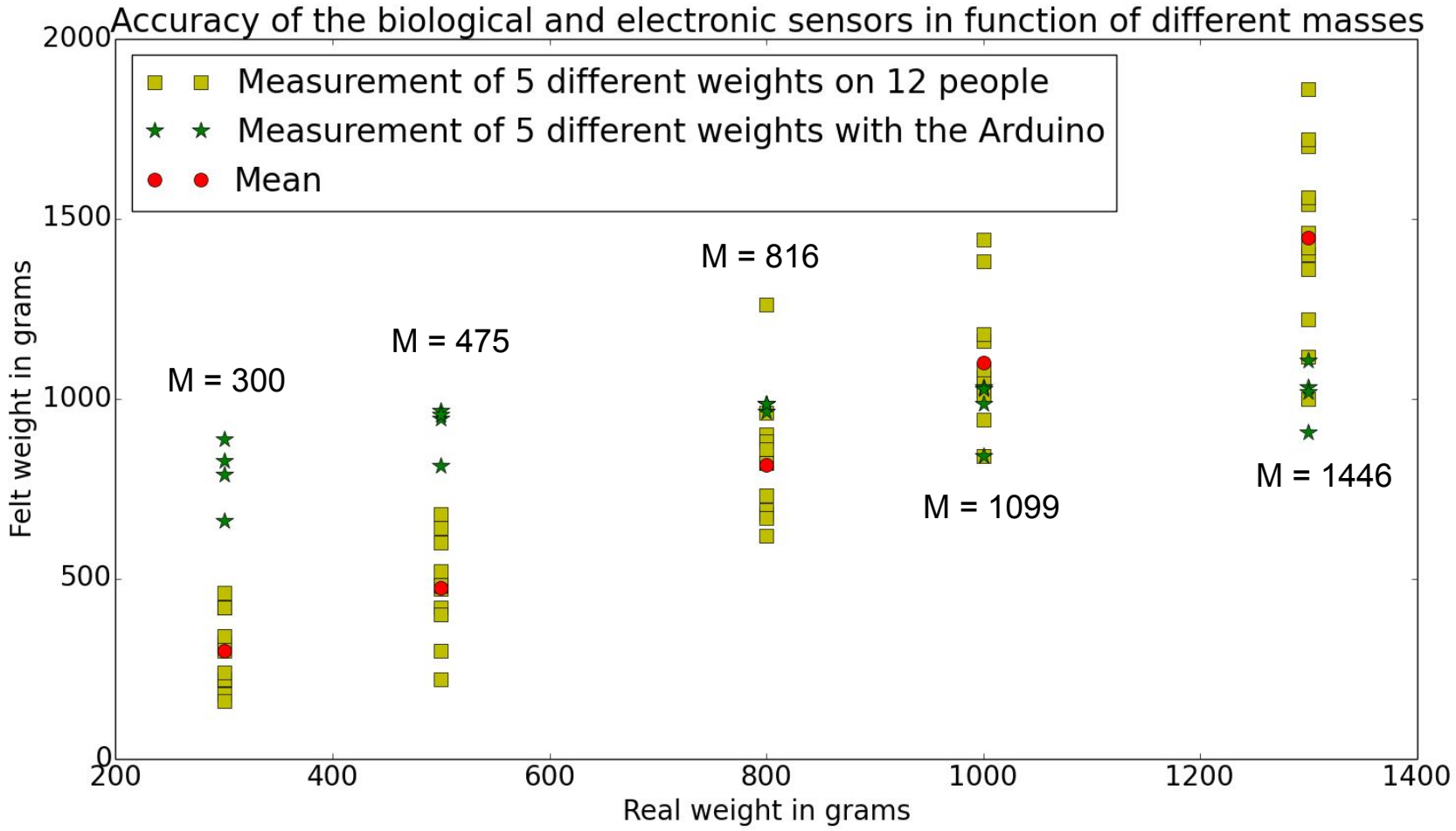


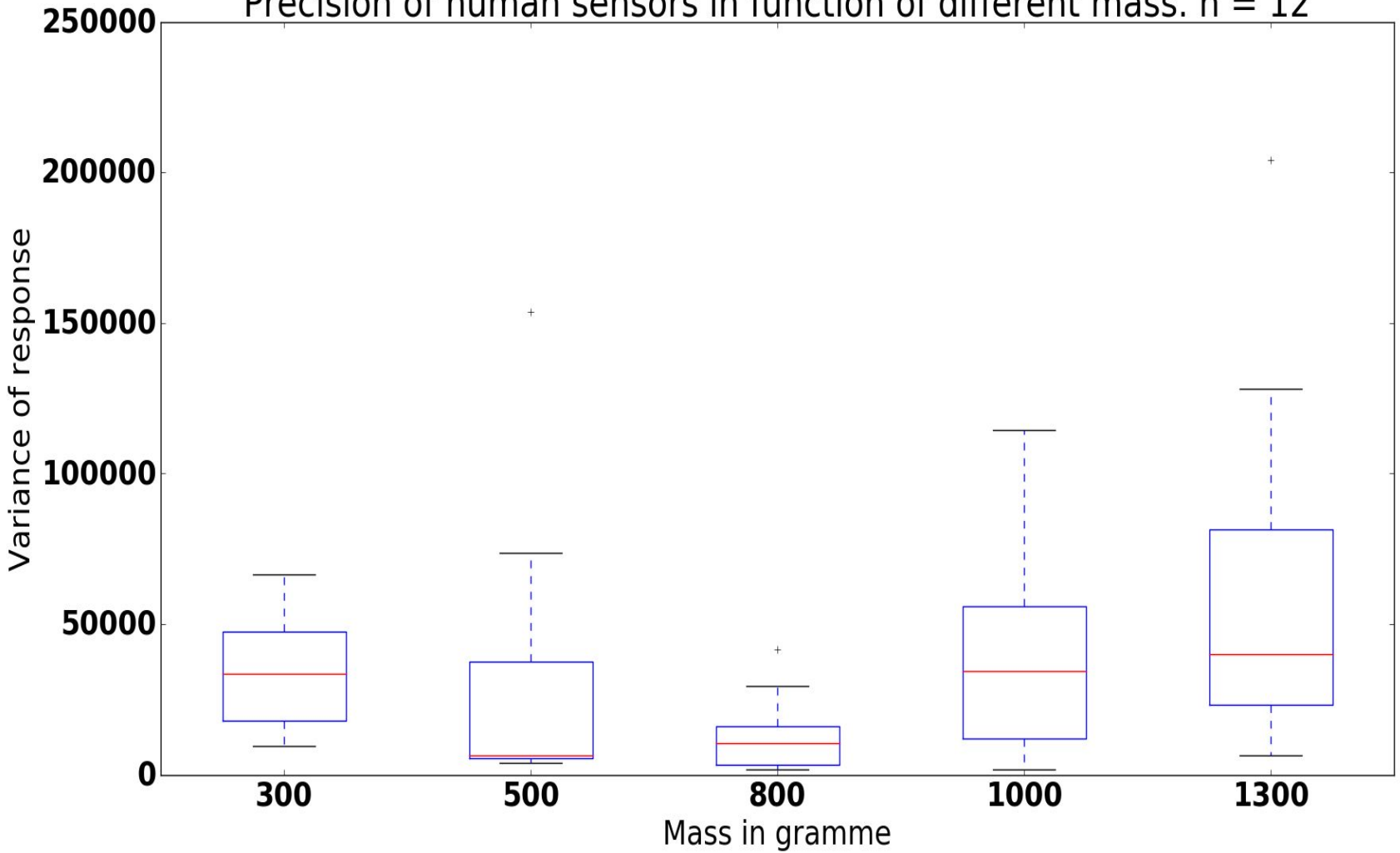
Quantify :
-Precision
-Accuracy
-Time Response

earn.adafruit.com/

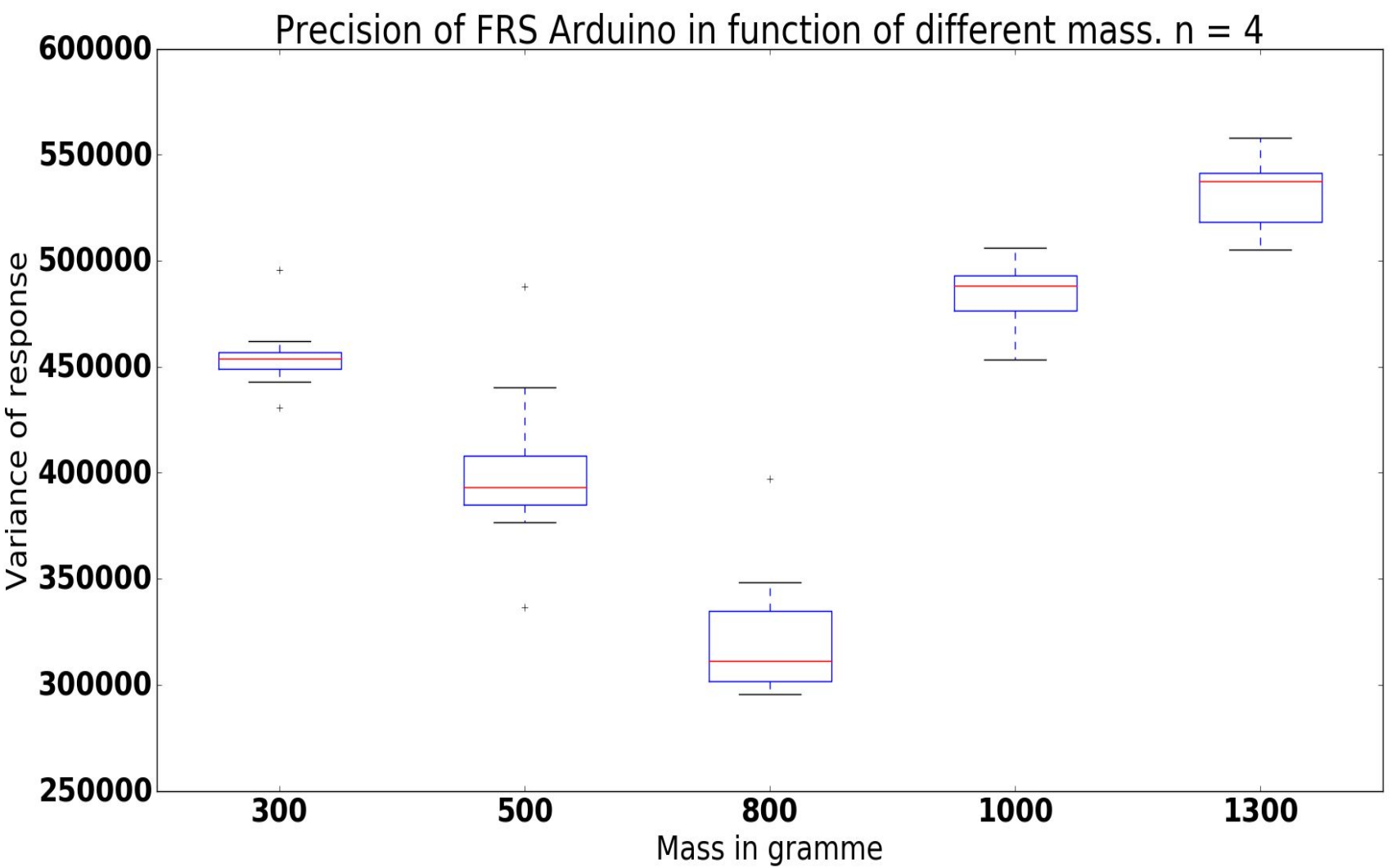
Result Accuracy



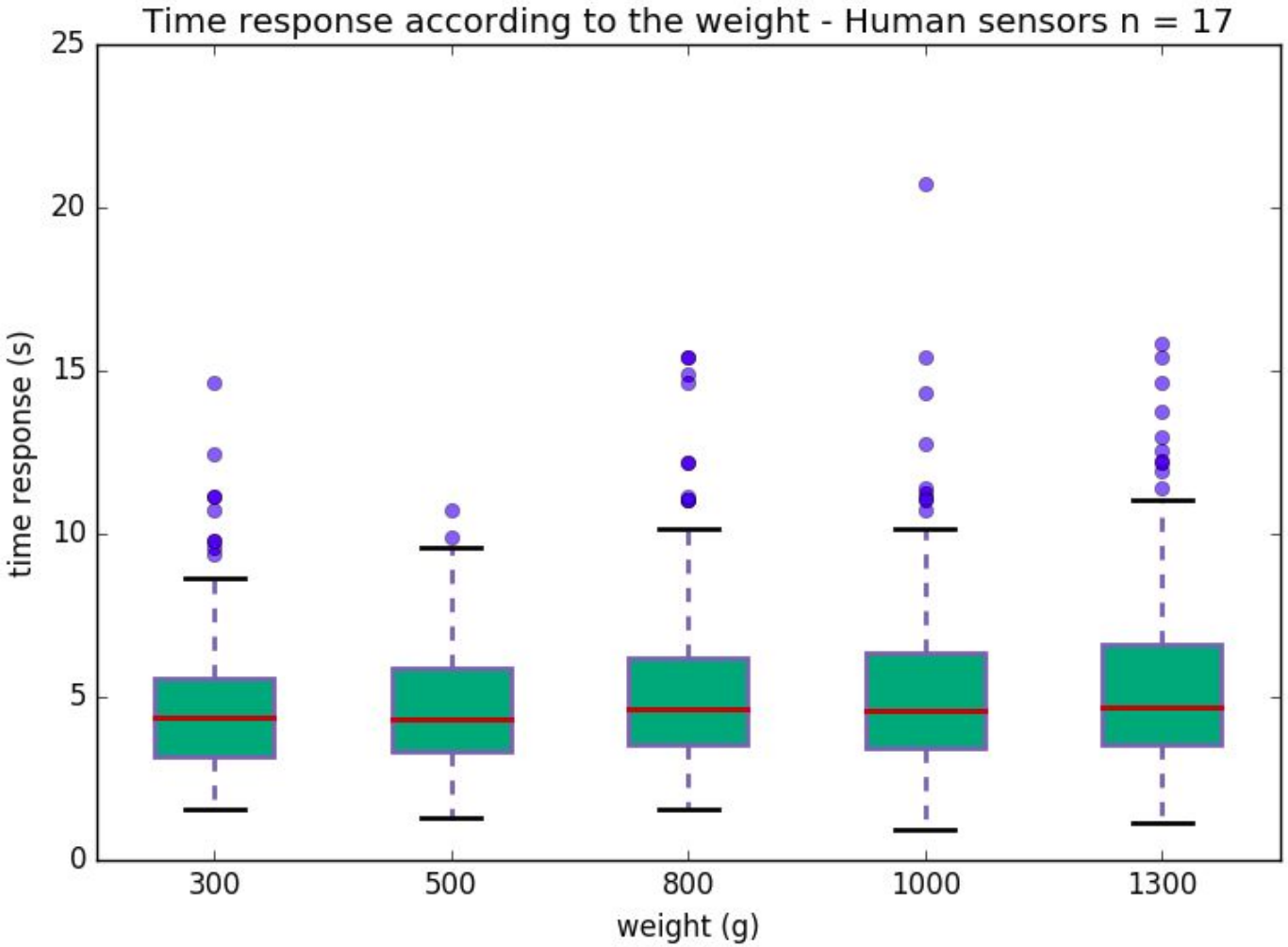
Result precision



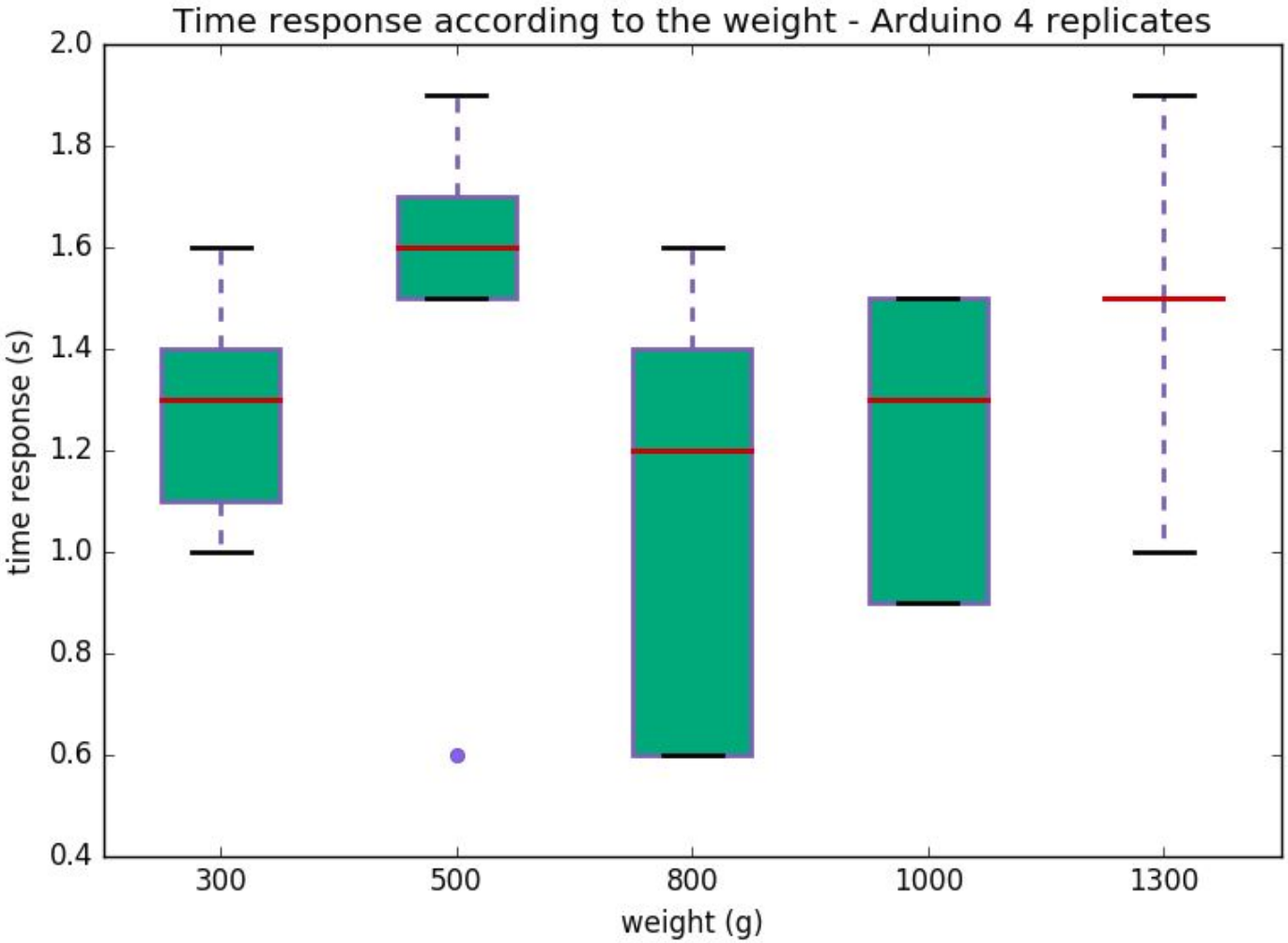
Result precision



Result Time response



Result Time response



To sum up

	Human sensor	Arduino FSR
➔ Accuracy	Linear	Saturated ?
➔ Precision	Constant	Not precise, better at 800g
➔ Time Response	Constant	Not enough replicate

Perspectives

Bias

- ➔ Position of the bottle on the wood slab
- ➔ Shape and position of the hand
- ➔ Individuality and mood of human

Go further

- ➔ More replicate for humans => reduce biological noise
- ➔ Other electronics sensors => reduce electronic noise

Acknowledgment

Special thank you to

- ➔ **Tamara**, for giving us the opportunity to do this project
- ➔ All our **volunteers** for taking part in our experiment
- ➔ **Tanguy** for the lending us a connected scale and adviced us

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Frontières du Vivant

PROPRIO SCALE

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