

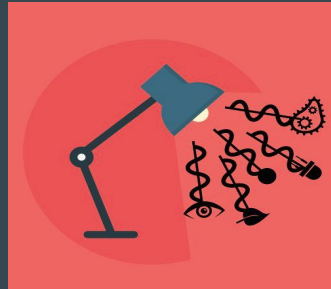
# TARDIGRADA

VS

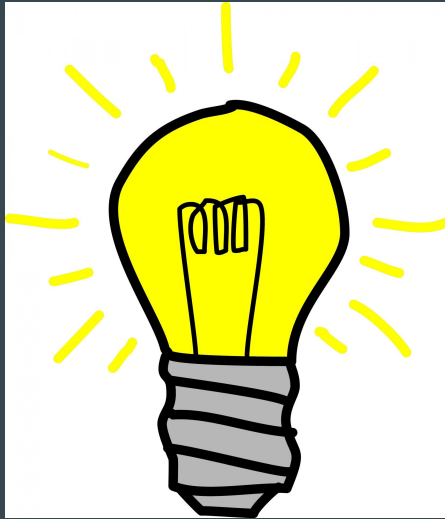
# LDR

...

*Lighting life*



Lightbulb



Tardigrade



**Can we use a Tardigrade as a photoreceptor ?**

# Overview : Sensors characteristics

## Tardigrades :

- Small size (0.05 to 1.5 mm)
- 4 pairs of legs
- Eat algae and cell plants
- Predators
- Eye



## LDR :

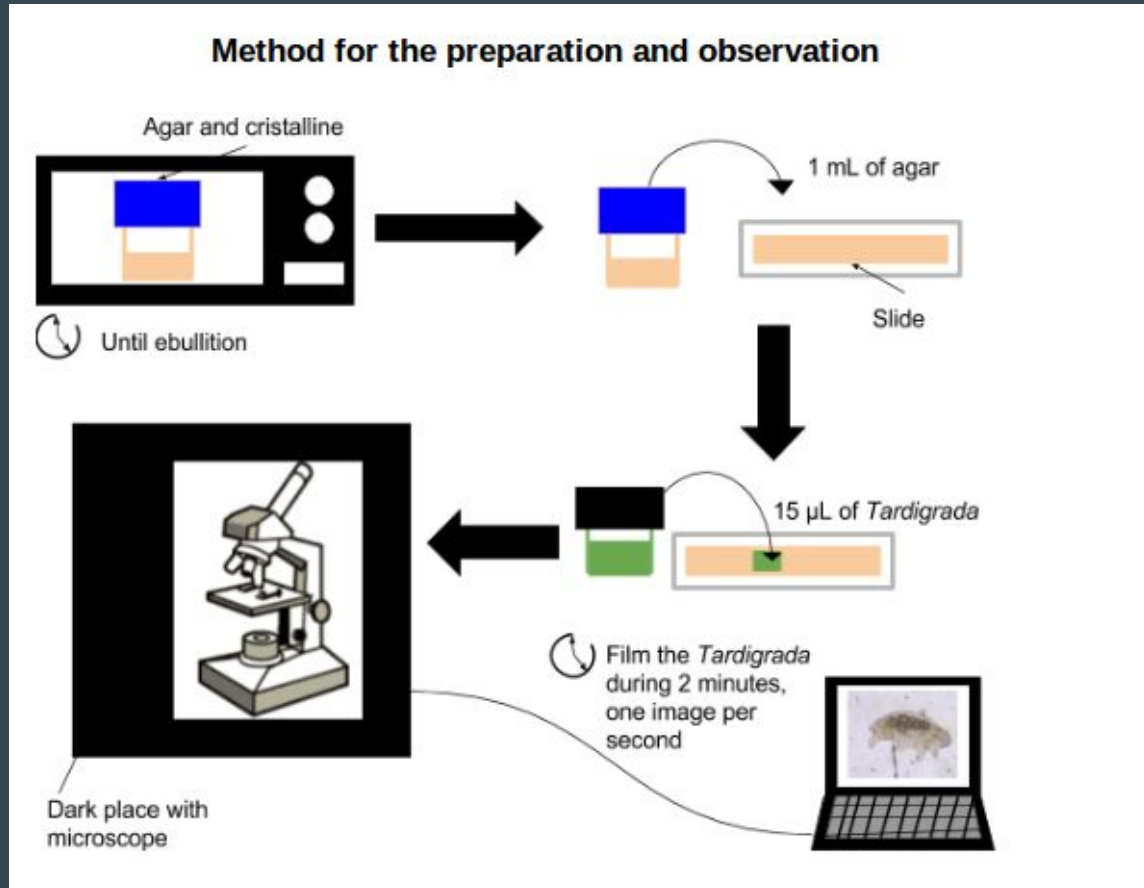
- Light Dependent Resistance



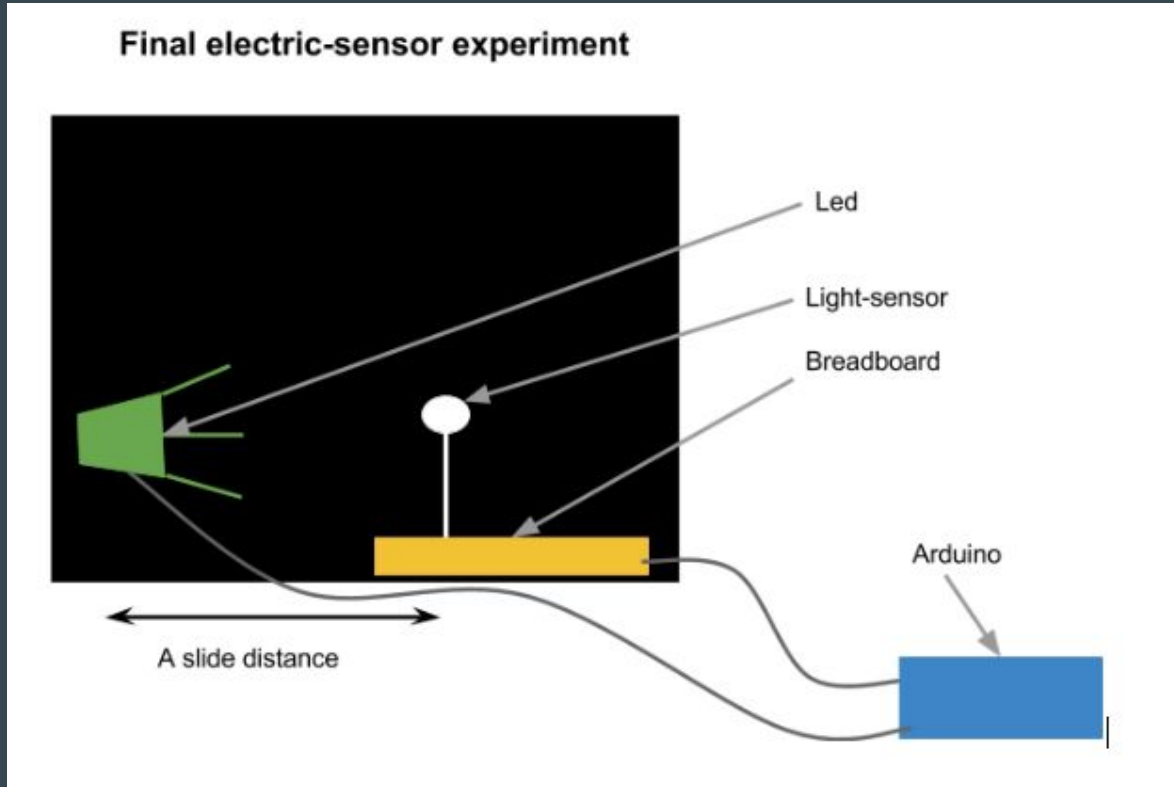
<https://commons.wikimedia.org/wiki/File:Ldr1.gif>

# Method : How do we answered the question ?

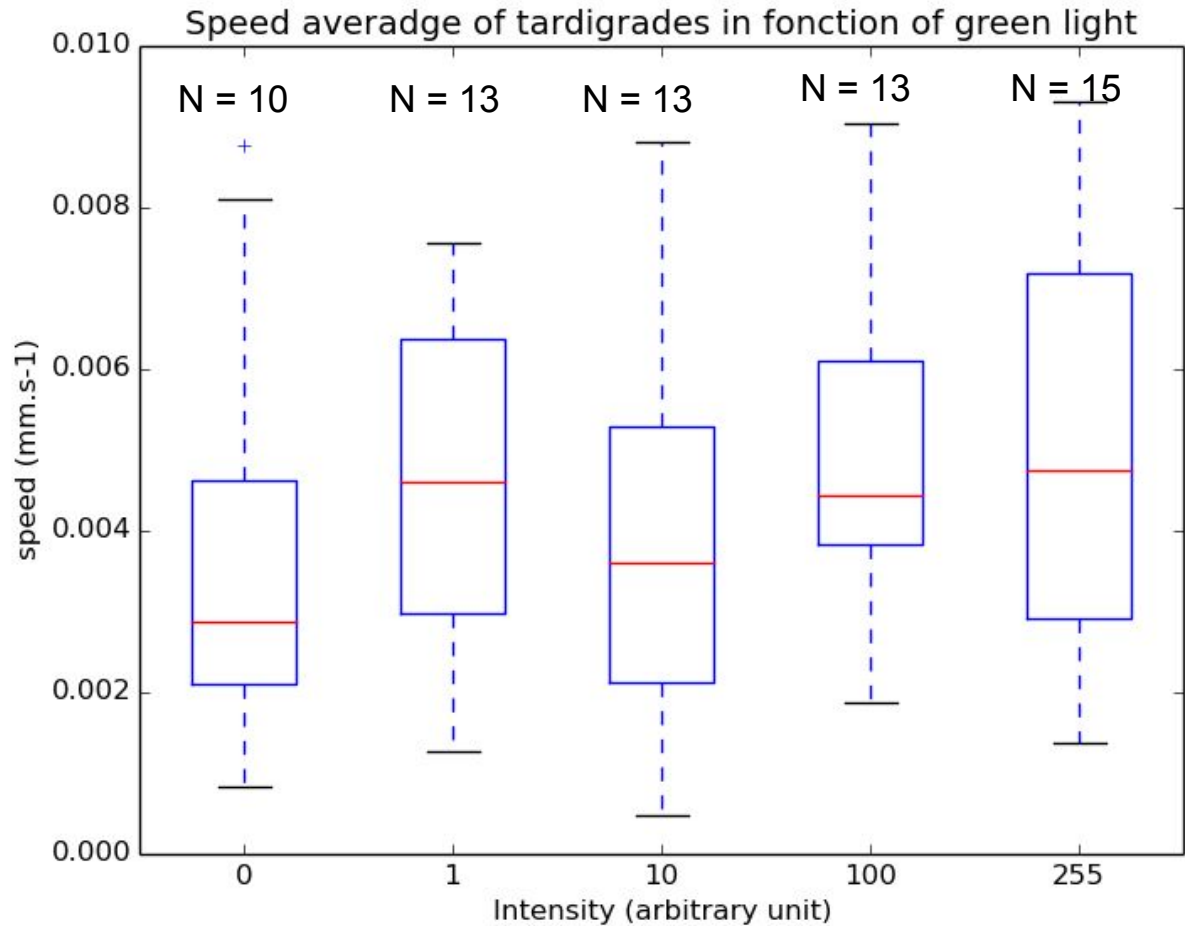
→ Use of green LED  
495 - 570 nm



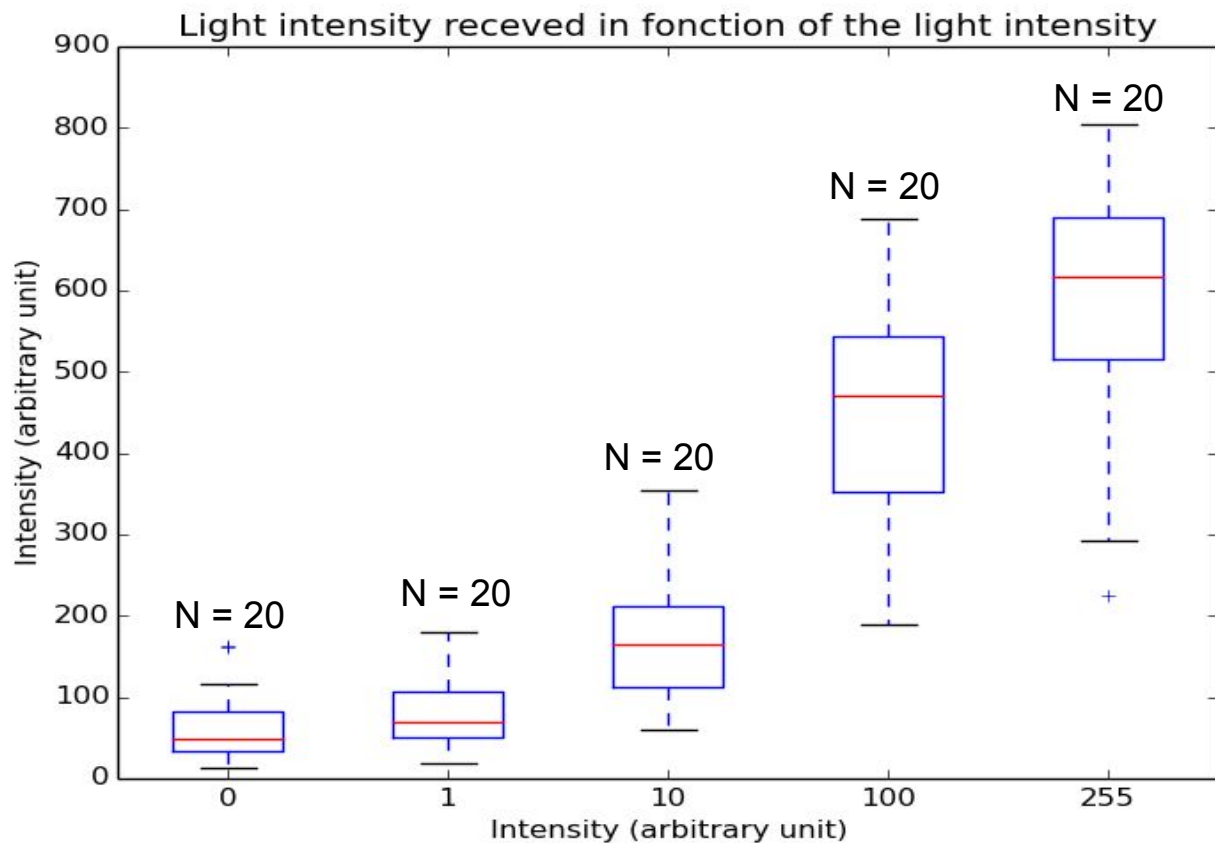
# Method : How do we answered the question ?

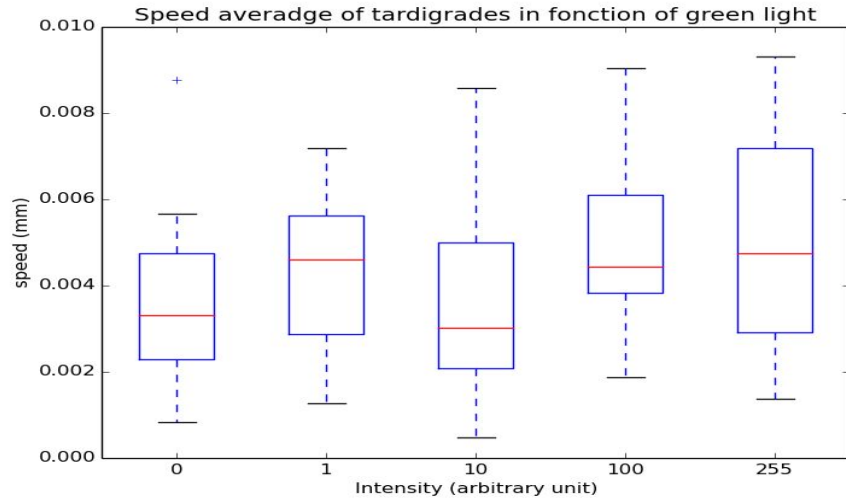


# Results

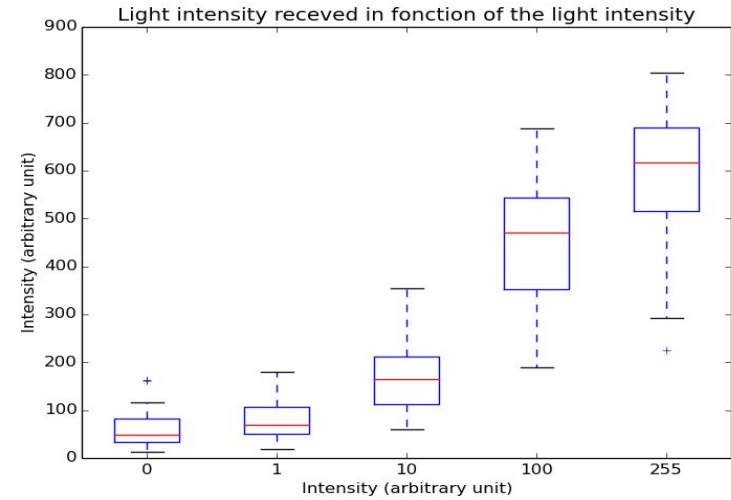


# Results





Interindividual variability  
(biological noise)



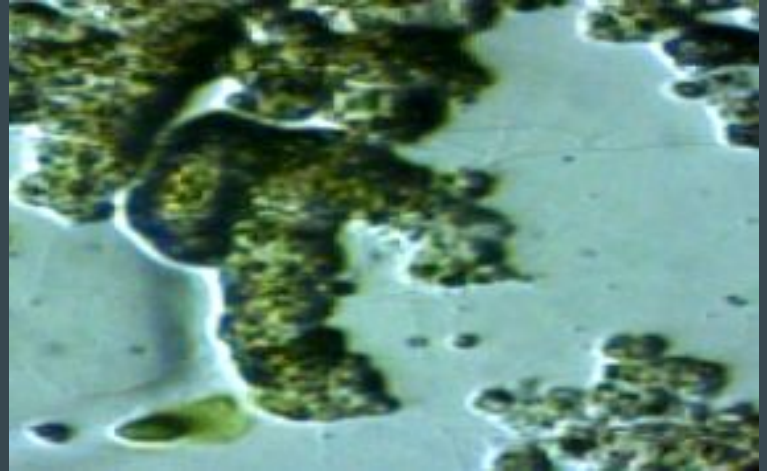
Precision lowered with  
higher Intensities



# To sum up

Next level :

- Increase the replicability of our protocol
- Less stimulus for Tardigrades



# Bibliography

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- Denis Shcherbakov, Ralph O. Schill, Franz Brümmer, Martin Blum . << Movement behaviour and video tracking of *Milnesium tardigradum* Doyère, 1840 (Eutardigrada, Apochela) >>. *Contributions to Zoology*. Consulté le 23 janvier 2017. <http://www.ctoz.nl/vol79/nr01/a02>.
- Documentation Plugin Manual Tracking - [http://imagej.net/Manual\\_Tracking](http://imagej.net/Manual_Tracking)
- « *Hypsibius dujardini* collection notes and culture protocol from Bob McNuff May 2007 », s. d. <http://tardigrades.bio.unc.edu/protocols/CollectionCulture.pdf>.

# Acknowledgment



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**Lucy Kundura**

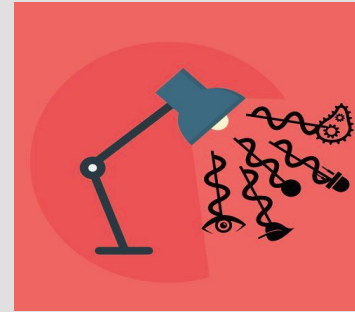
**Nicolas Sénécaut**

**AlV Tardigrade team**

**Denis Shcherbakov**



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**Thank you for the week!**