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Insect Vision 1.0.1

PLOS Computational Biology

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OPEN ACCESS

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External link:

<https://github.com/InsectRobotics/insectvision/tree/version-1.0.1>

Protocol Citation:

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MANUSCRIPT CITATION:

Gkaniyas E, Risse B, Mangan M, Webb B (2019) From skylight input to behavioural output: A computational model of the insect polarised light compass. PLoS Comput Biol 15(7): e1007123.
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Protocol status: In development
We are still developing and optimizing this protocol

Created: Mar 15, 2019

Last Modified: Mar 19, 2019

PROTOCOL integer ID:
21513

ABSTRACT

InsectVision

Computer Vision Toolbox for Insect Vision

Version 1.0.1

This version has been created as support for the article:

Gkaniyas E., Risse B., Mangan M., and Webb B. (2019) From skylight input to behavioural output: a computational model of the insect polarised light compass. PLOS Computational Biology.

Requirements

To be able to run all the experiments and replicate the results presented in the article, the [compmodels](#) package is needed. If you don't have access to this package, please contact the authors.

Clone both repositories and set the **compmodels** as a dependence to the **insectvision** package.

Observe the plots presented in the article

To see the results, it is not necessary to run the code. By simply opening the [notebooks/plos.ipynb](#) file, the plots should be automatically generated for you to observe them.

Replicate the results from the article

To create the plots by yourself, you need to start a **Jupyter notebook** kernel at the root of the package. Then run the [notebooks/plos.ipynb](#) file, which already contains all the plots and the respective code to replicate them. Some plots (especially the ones related to the global optimisation) may need a long time to run; this does not mean that they do not work.

Author

All the code has been implemented by [Evripidis Gkaniyas](#).

Github repository

You can go the github repository by following [this](#) link. The release version is attached and it can also be found [here](#).

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ATTACHMENTS

[insectvision-1.0.1-beta.zip](#)