

Materials List for:

# High-throughput Analysis of Locomotor Behavior in the *Drosophila* Island Assay

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URL: <https://www.jove.com/video/55892>

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## Materials

Name	Company	Catalog Number	Comments
25 x 95 mm <i>Drosophila</i> vials	Flystuff	32-116SB	-
Logitech C525 HD Webcam	Logitech	-	Any webcam with USB connection is suitable.
Stand to hold webcam	-	-	-
Lamp	-	-	12 V LED lights are appropriate
Pounding pad	-	-	Any mouse pad works
Island Assay box	-	-	Dimensions 40x35x2.5 cm. Hole 20x30 cm. Transparent.
Island Assay bath	-	-	Dimensions 42x38x25 cm. Non white.
Island/platform	-	-	Dimensions 42x38x25 cm. Uniform white.
Soap	-	-	Standard dishwashing detergent is suitable.
Computer	-	-	Scripts run both on Windows and Mac
Image-recording software: HandyAvi <sup>®</sup>	AZcendant <sup>®</sup>	-	HandyAvi is only compatible with Windows and has been described throughout the manuscript. It can be downloaded from: <a href="http://www.azcendant.com/DownloadHandyAvi.html">http://www.azcendant.com/DownloadHandyAvi.html</a> (version 5.0)
Image-recording software: WebcamCapture	-	-	Fiji/ImageJ plugin that can be used on Mac alternative to HandyAvi for image-recordings and can be downloaded from: <a href="https://imagej.nih.gov/ij/plugins/webcam-capture/">https://imagej.nih.gov/ij/plugins/webcam-capture/</a> When using this method, the user has to use the same folder setup and image-recording settings indicated in this manuscript, with the exception that for each experimental replicate, the captured image stack should be exported as Stack.tiff to the corresponding experimental replicate folder. Upon running the " <i>Drosophila</i> Island Assay" macro on this data, no text should be present in the "First frame identifier" setting.

Fiji	-	-	Version 1.4 or higher, can be downloaded from: <a href="https://figshare.com/s/def4197ee0010b21a76f">https://figshare.com/s/def4197ee0010b21a76f</a>
R studio	-	-	Can be downloaded from: <a href="https://www.rstudio.com/products/rstudio/download/">https://www.rstudio.com/products/rstudio/download/</a>
R	-	-	Version 3.3.2, can be downloaded from: <a href="https://cran.rstudio.com">https://cran.rstudio.com</a>