

# Resource Summary Report

Generated by T1D on Aug 2, 2026

## Fly EM

RRID:SCR\_002242

Type: Tool

### Proper Citation

Fly EM (RRID:SCR\_002242)

### Resource Information

**URL:** <http://www.janelia.org/team-project/fly-em>

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**Description:** A project producing datasets, software, and algorithms that is developing the technology to produce connectomes at the electron microscopic level of behaviorally-relevant neural circuits as well as the entire *Drosophila* nervous system. This technology will enable them to create a map of every neuron and synapse in the *Drosophila* nervous system, using novel approaches to electron microscopy (EM) as the foundation. In the same way that the fly genome paved the way for larger projects, including sequencing the human genome, Fly EM may ultimately contribute to our understanding of the human brain by establishing a fly "connectome" a map that shows how all neurons in the fly brain are connected to each other. They began their entry into EM reconstruction with the fly's adult visual system, where much is known about cell types from previous EM and histological studies, as well as ongoing studies in the Fly Light Project. In addition to establishing and publishing a fly connectome, Fly EM will make technology and methodology available that is needed to perform large-scale EM reconstructions. Fly EM will generally pursue an open policy with their datasets, software, and algorithms after relevant publications. When an EM reconstruction is published, the derived connectome and reconstructed neuronal skeletons will be made available online. The raw data and annotations will be made available upon request as logistics dictate. To encourage further collaboration and scientific discovery, a small fraction of their raw data and corresponding segmentation will be made available independent of publication. Their goal is to enable others who wish to approach the many algorithmic challenges, but who do not have access to an EM facility, to have the data they need to support methods development, as well as their results to use as a benchmark. Fly EM emphasizes publication of supporting techniques and software approaches before major EM reconstruction releases to encourage rapid feedback from the community and adoption of their strategies. FlyEM maintains much of its software in the open-source repository GitHub:<http://janelia-flyem.github.com>. They will provide information on official release versions of these packages on git-hub when it reaches reasonable maturity.

**Abbreviations:** Fly EM, FlyEM

**Synonyms:** Fly EM Project

**Resource Type:** image analysis software, data or information resource, segmentation software, portal, topical portal, software application, data set, software resource, data processing software

**Defining Citation:** [PMID:30033368](#)

**Keywords:** neuron, synapse, nervous system, electron microscopy, visual system, connectome, reconstruction, adult, optic lobe, medulla, lobula

**Availability:** Janelia Farm license, A 3-clause BSD license

**Resource Name:** Fly EM

**Resource ID:** SCR\_002242

**Alternate IDs:** nlx\_155555

**Record Creation Time:** 20220129T080212+0000

**Record Last Update:** 20260801T190144+0000

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## Ratings and Alerts

No rating or validation information has been found for Fly EM.

No alerts have been found for Fly EM.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 3 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [T1D](#).

Ascoli GA, et al. (2021) Farewell, Neuroinformatics! Neuroinformatics, 19(4), 551.

Feng D, et al. (2015) Exploration and visualization of connectivity in the adult mouse brain. Methods (San Diego, Calif.), 73, 90.

Peng H, et al. (2013) Automated image computing reshapes computational neuroscience. BMC bioinformatics, 14, 293.