

The 3D Printed Fruit fly - physical copies and STL files for printing

Category

Media

The 3-D Printed Fruit Fly, files and physical orders

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We have created a 3D-Printed Fruit-fly, the size of a small rabbit, for the world to enjoy. Finally, face to face with the fly!

We all learn more easily when can hold, touch, feel, break apart and put together again an object.

Our 3D-Printed Fruit-fly comes in multiple, swappable genotypes: (1) the normal fly, with red, crystalline eyes and straight wings, and (2) mutant flies, with white, rough eyes, stubble bristles and curly wings. We were inspired to represent some of the most popular genetic markers (w-, Cy-, If-, Sb-) and fly stocks commonly used in labs for genetics (wild-type and w; If/CyO; MKRS Sb/TM6B).

Play with and hold The 3D-Printed fruit-fly, swap the genotypes with the simple click and unclick of tiny magnets that hold parts together, to demonstrate how genetics works.

We have also made Drosophila's internal organs which can be placed inside The 3D-Printed Fruit-fly.

Use the 3D-printed fruit-fly for your labs, schools and events for the public, to share your excitement for research, explain the principles of genetics and to tell everyone why Drosophila is such a great model organism for scientific research.

We have also designed a smaller version of the fruit-fly, with fewer parts and simpler internal organs, called "Small 3D-Printed fruit-fly". This one does not have swappable genotypes. And we do not offer to print and paint this one to order. You can download the .stl files to print it

yourself.

In this platform, you will find:

Instructions for how to print your own model

- Stl files for download, for you to 3D-print the fruit-fly and organs yourself. Take care to choose the correct technology to print these. We include specifications of the printers and technology we used.
- Instructions and videos on how to assemble the fruit-fly after printing (e.g. placing the magnets) are included with the download package.

Made to order models

We printed The 3D-Printed Fruit-fly in single colour plastic and then painted it. Painting on plastic is not trivial. If you would like to order a ready made and painted model, you will also find:

- How to place an order if you want us to print The 3D-Printed Fruit-fly and/or internal organs - process and paint them for you.

Prices for a 3D-printed and fully painted fly are as follows:

- £800 for 3D-Printed Fruit-fly external anatomy in swappable genotypes
- £500 for internal organs only
- £1200 for complete 3D-Printed Fruit-fly, external, swappable genotypes and with internal organs.

Posters and postcards

You will shortly be able to download posters and images derived from the 3D-printing designs: of the fruit-fly and the internal anatomy of *Drosophila*. Download and print the images and posters to put on your walls.

If you have any further questions, contact us at a.hidalgo@bham.ac.uk.

“The 3D-Printed Fruit-fly”

- Digital sculptor: Joaquin Villa (Madrid, Spain)
- Prototype printing of The 3D-Printed Fruit-fly: Dr Parastoo Jamshidi (School of Metallurgy, University of Birmingham)
- Project Director: Professor Alicia Hidalgo (Neurogenetics, School of Biosciences, University of Birmingham). <https://more.bham.ac.uk/hidalgo/>
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