

CNBP Mobile Phone Microscope

Users are free to modify and print the attached files for research or personal purposes. We ask that any publications involving these files or edited versions contain the following citation:

“A dual-mode mobile phone microscope using the onboard camera flash and ambient light”, Antony Orth, Emma R Wilson, Jeremy Thompson, Brant C Gibson, *Scientific Reports* (2018) 10.1038/s41598-018-21543-2

The Scientific Reports paper can be found here: <http://www.nature.com/articles/s41598-018-21543-2>

An earlier preprint version is also available here:

<https://www.biorxiv.org/content/early/2017/08/18/162008>

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Files:

- **Supp_form.form**: 3D printing file in Preform format for direct printing on a Formlabs 3D printer. Open with Preform and adjust print settings to match your printer properties. Note: users may want to add their own supports. On the FORM 1, we found that optimal printing was achieved with no supports, however, users report better printing with supports with the FORM 2.
- **Supp_solidworks.SLDPRT**: Solidworks 3D file. Users can open this file in Solidworks and freely edit the clip to suit their experimental needs (ie. different lens holding geometry, altering clip geometry to fit another phone).
- **Supp_STL.STL**: STL file. Native format used by most 3D printers, though may not be editable.

Note 1: These files have only been tested with an iPhone 6s. Other models of mobile phones may require alterations to the clip geometry. To do this, edit the solidworks file appropriately for your specific phone model.

Note 2: Depending on their 3D printer, users may need to alter the scaling for these models to fit properly over an iPhone 6s. We have encountered that the scaling may need to be adjusted by up to 10% from a FORM 1 3D printer to a FORM 2 3D printer. This can be done directly in the .form file, or using the editable solidworks file.