

BioBuilding: Synthetic Biology for Students: Picture This

Lab 3: Picture this

Explore an engineered biological system through a computer simulation, an electronics building kit, and a real-life example.



If you have not had a lesson on how the bacterial photography system works, go read the first half of the [design assignment page](#).

Part III. U-do-it Bacterial Photograph

Decide what image you would like to develop as a bacterial photograph. Remember that the goal is to have each cell growing distinctly in the light or dark. Light can bounce around edges and may blur the resulting image if the black and white are highly intermingled. In general, it's better to have a dark background and a light image rather than the other way around. Once you have decided on an image, generate a computer file with this image and print it to a transparency. To darken the dark parts of your photo, you might want to print it on two transparencies and use them both to mask the Petri dish. The diameter of the petri dish is less than 3 inches across so your image must be smaller than this.

Email [info AT BioBuilder DOT org](mailto:info@biobuilder.org) to say that a transparency is being sent, and in a few days, a jpg file with your bacterial photo, or the plate itself if that's possible, will be sent back to you.

Data Sharing

When you've finished your work on any part of this activity, upload your data to the link on the BioBuilder site that's [here](#). You'll be able to compare what you've done to what other BioBuilders around the country have tried.