DIY BREW KIT:

EXPANDING YOUR BEER LIBRARY WITH BIOLOGY

SCIENCE

Using the latest techniques in synthetic biology we are creating genericlaly modified yeast. The yeast strains have been altered in several exciting ways, including bioluminescence!

BEER

Take things into your own hands for the next stage of the process, get a kit and start brewing!

DESIGN

Think carefully about how you want our new beer to be different. Look at the available detains and the design your perfect beer!

PLAY WITH YEAST

- Make beer with 100% our beer
- Try out different combinations of our strains
-Mix it with other brewing strains

DIY BREW T

SYNBIO BREWERY

iGEM

WHO WE ARE

London Biohackspace is a UK open biolab run entirely by its volunteer membersbased at the London Hackspace. We are the first community lab in the UK approved for carrying out genetic techniques.

We are the only community lab taking part in iGEM from Europe. Our lab is grounded on open-source principles and community development, The strength of the biohacking and DIYbio community is the diversity of its members. London Biohackspace hopes to encourage enthusiastic amateurs and professionals with backgrounds in a broad mix of professions such as artists/engineers,/biologists/programmers to carry out innovative bioscience projects.

THE SCIENCE OF BEER

Our project aims to develop a designer brewing yeast strain that produces different flavours, scents, colours, nutrients and bioluminescent proteins. We will also explore the use of existing brewing strains of yeast (i.e. not the commonly used lab strains of S. cerevisiae) as a chassis suitable for synthetic biology. This will be achieved by developing new genetic parts which when combined will function as a platform to allow multiple genes to be integrated into chromosomal DNA of existing brewing strains. Additional parts will be created that allow designers to regulate the level of expression of inserted proteins thus giving users the ability to create novel brewing strains. The project will also explore how effective such organisms are in producing genuinely novel drink products that can challenge what beer can be, the project will produce an example product for the future of homebrewing: a variety pack / kit for homebrewers to experiment with different varieties of engineered yeast in their homebrewing endeavours.

SCIENCE OF BEER