

Activity ■ Putting BioBricks Together

Instructions

1. Scroll down to the **BioBrick Bank** on page 2
2. Select a promoter BioBrick
 - a. **High Level:** a large amount of the product will be produced
 - b. **Medium Level:** a medium amount of the product will be produced
 - c. **Low Level:** a small amount of the product will be produced
3. Select coding region BioBrick(s)
 - a. **Apple** smell
 - b. **Blueberry** smell
 - c. **Pear** smell
 - d. **Orange** smell
4. On page 3, put a DNA sequence together that contains the following BioBricks:
(Copy and paste DNA segments from *BioBrick Bank*)
 - a. Promoter of your choice
 - b. Ribosome Binding Site
 - c. Coding Region of your choice
 - d. Terminator
5. Underneath your DNA sequence, describe the output of your sequence in words
6. Drag Synthetic Biology Open Language symbol (page 2) underneath each BioBrick in your DNA sequence
7. Repeat steps 2-6, using a different combination of BioBricks
8. Share your document in [Google Form #3](#)
 - a. Select "Share" at the top right corner of your screen
 - b. Select "Change to anyone with link"
 - c. Select "Viewer"
 - d. Select "Commenter"
 - e. Select "Copy link"
 - f. Select "Done"
 - g. Open Google Form #3
 - h. Paste link into Google Form #3 Question #5

Example using DNA

sequence from Module #3

Lesson

DNA Sequence:



SBOL Symbol:



Synthetic Biology Module #3

University of Rochester iGEM 2020

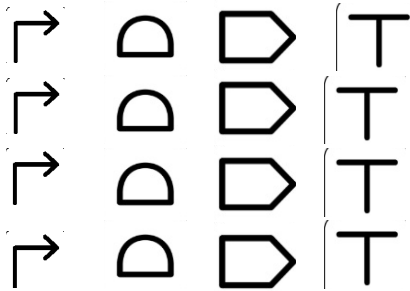
Output: This sequence leads to medium level of blueberry smell protein
BioBrick Bank



BioBrick	Function	DNA Segment
Promoter A	Medium level transcription of gene	
Promoter B	Low level transcription of gene	
Promoter C	High level transcription of gene	
Ribosome Binding Site	Codes part of mRNA that binds to ribosome	
Coding Region 1	Amino acid sequence for	

	apple smell	
Coding Region 2	Amino acid sequence for blueberry smell	
Coding Region 3	Amino acid sequence for pear smell	
Coding Region 4	Amino acid sequence for orange smell	
Terminator	Causes transcription of gene to stop	

Synthetic Biology Open Language (SBOL) Symbols



Do your work below

DNA Sequence 1:

SBOL Symbol 1:

Output 1:

DNA Sequence 2:

SBOL Symbol 2:

Output 2: