

In Your Final Project Group

Choice!

Choose which of your three ideas you're going to develop into your final design project. Think about how feasible they are as projects and how important they are (the “what problem will this solve” question from the Three Ideas report), as well as how interesting they are.

The instructors will give each group a recommendation about which idea(s) we believe are most worth pursuing.

Specification

Write a *specification* for your system – a summary of what it is supposed to do, how it should interact with the outside world, how it should be used, etc. Write a few sentences for each of the questions below. (Where applicable, you may wish to present a few alternatives and discuss their pros and cons: e.g. a medical team could write about delivering their product as an injection, pill, probiotic yogurt...)

Your group should collaborate on this specification, splitting up research tasks amongst yourselves in order to get the work done. (It does not need to be one person per question!)

1. What is the function of your system? Take your answer to the first question on the Three Ideas report, and get more detailed/specific. *(Think back to the questions you answered for the iGEM video! You do not need to name particular genes or proteins you will use, but think about what specific physical, chemical, or molecular actions your system might perform on the outside world. Consult the instructors for advice on ways to tackle a thorny problem!)*
2. What information does your system need to take in from the outside world? *(How does it know when to start/stop, when to produce a different level of output, etc?)*
3. How might your system be packaged and used by customers/patients? *(Think about your target audience of users – do they need something easy and convenient, or can they work with tubes and micropipettors? Is your system single-use, multi-use, or intended to last a long time?)*
4. What are the safety considerations for your project? *(Will it involve putting engineered cells inside people, or putting them in the environment, or just keeping them in a test tube? Think about how you might keep your cells from “escaping into the wild”.)*