

Now that you have analyzed a problem, proposed and refined a solution, and developed a pitch for your idea, you will create a Technical Brief describing your product and the process you used to find a solution.

**PART 1. Briefly describe your solution and how it solves the problem or challenge you identified.**

**PART 2. Describe the mathematics, science, and engineering you researched to design your product. Include links to websites or other resources you used.**

**PART 3. Describe the decisions you made to choose your design and the challenges you had to overcome.**

**PART 4. How did developing your Key Business Proposition and related Business Models affect your process?**

**PART 5. Your final solution probably looked different from your original idea. Describe the process for how you developed your idea from start to finish.**

### PART 6. How well do you think your solution will work under real-world conditions?

| Just a little | Somewhat | Fairly Well | Almost Completely |
|---------------|----------|-------------|-------------------|
|               |          |             |                   |

*Explain your reasoning.*

### PART 7. Fully describe your Operation Lifeline solution based on the questions below.

- A. What does your solution look like?
  - a. Include a detailed sketch of your solution. Include dimensions and appropriate units of measurement.
  - b. Label your sketch to explain how it works.
- B. How much medication will your solution be able to deliver?
  - a. Show how you calculated this.
  - b. Include any assumptions you made about the types of medication or medication containers that your solution will deliver.
- C. In what situations will your customers be able to use your solution?
  - a. Describe the components of your design that will allow it to be used in specific situations, like floods or earthquakes.
- D. How far can your design deliver medications?
  - a. Show how you calculated this.
  - b. Describe any limitations to your solution.
- E. How will your device keep medications cold?
  - a. Explain how long your solution will keep the medication cold.
  - b. Explain how the materials in your solution keep things cold.
  - c. Describe other materials you considered, how they work to keep things cold, and why you chose the materials you did.