Design review requirements:

**First design review: Preliminary project review**

1. The background for your project

* Give important information on your field. For example, if you were going to design a safer motorcycle helmet, talk about the number of motorcycle deaths, helmet laws, percentage of riders that wear motorcycles, etc.

1. The project need
   * Define the problem. Why does your product need to exist?
2. Proposed solution and project scope
   * Broadly, what do you plan to do to address the project need? This is not a description of your final design. Continuing with the helmet example, a proposed solution would be “to make a helmet that detects when a rider is falling and automatically adjusts to better protect the rider.” Note that exactly how the helmet will detect a fall or what parameters it will adjust to protect the rider were not mentioned. The project scope lays out, briefly, what your product will and will not do. For example, “the device will reduce the likelihood of serious head injury and will be available to consumers at a competitive price. It will not prevent all types of injuries or prevent motorcycle crashes. It is not designed for ages under 18 years-old, etc.”
3. Design specifications and requirements
   * An expansive list of quantifiable specifications. For example, what is the helmet’s maximum weight requirement? Its maximum size? How much force must it withstand? How wide of a visor must it have? Be creative. The more specifications you define, the better the panelists will understand what you are trying to achieve.
4. Preliminary market research
   * How large is your market? Is the market growing? If so, at approximately what rate and how did you get that rate? What other competitors are on the market? What is the projected adoption rate for your product? Etc.
5. Potential solutions
   * A list of preliminary solutions that meet your design specifications. You should be able to come up with around 5 potential solutions. Briefly explain the benefits and disadvantages associated with each solution. Note that this is not a time to favor one design. If one of your proposed solutions is way better than all the others, then you probably have not put enough thought into this section.
6. Proposed design schedule
   * Make a Gantt chart.
7. Breakdown of team responsibilities
   * What will each member of your team focus on?
8. A list of resources you will need
   * What kind of funding will you need? Who would you like as a mentor? Etc.

**Second design review: Progress report and design selection**

1. A recap of your problem, need, and solution
   * You will likely have a more narrow project scope
   * See this as a preliminary product pitch
2. A revised list of specific design requirements
   * You will likely have additional (and more precise) design specifications
   * You should include calculations that back up your more precise design specifications.
3. Present your one best design
   * Prove why this one design best fits your design specifications and your market.
   * It is very important for you to be able to convince the panelists that you have a solid design.
4. Present a non-physical prototype
   * If you have a physical device, demonstrate a computer model
   * If you have a software project, please broadly walk through the pseudo-code and give panelists a sense of roughly what your website, program, and/or application will look like.
   * Describe specific details of your design
5. Present the resources you have used and plan to use
   * How much funding have you used towards your project and how much will you need?
   * Who are your mentors?
   * Do you need anything from the IDEA Labs board?

**Third design review: Final product presentation**

1. A refined product pitch
   * This will be the pitch you give to investors. Please take it very seriously.
2. Very specific design specifications
   * Exactly how much does your product weight? What is its exact size? Etc.
3. Demonstration of a working prototype
   * If it’s a physical product, you must have a physical prototype
   * If it’s a software product, you must also have a working prototype or at least a proof of concept (depending on the project).
4. Present a mature market plan
   * What are your exist strategies?
   * Provide an accurate measurement of the product’s cost
5. Future directions
   * What are your team responsibilities? What resources will you need? What is next for your team and for your project? Are you having any difficulties with your design?