**OVERVIEW**

|  |  |
| --- | --- |
| **Product Description** | |
| **Market Need** | Why does the world need your product? |
| **Key Features/ Functionality** | What does your product do? |
| **Other Product Compatibility,**  **Ecosystem, etc.** | With which other systems does your product need to work? |
| **Stakeholders** | |
| **Target User** | Who will use your product? |
| **Target Purchaser**  **(if different from user)** | Who will buy your product? |
| **Other Stakeholders** | Who else should be considered? |

**COMMERCIALS AND REGULATORY**

|  |  |
| --- | --- |
| **Countries of Sale** | In which countries will you sell this version of the product? |
| **Target Launch Date** | When would you like it to be available? |
| **Regulatory Requirements** | |
| **Safety (UL, CE)** | Which safety certifications are required? |
| **Emissions (FCC, CE)** | Which electrical radiation certifications are required? |
| **Interoperability (Cellular, WiFi)** | With which networks should your product operate? |
| **Labeling** | |
| **Regulatory Marks** | Which are required? |
| **Country of Origin** | Where was it assembled? |
| **Serial Number** | Does your product need a serial number? |
| **Financials** | |
| **BOM Cost** | How much do the components cost to make? |
| **COGs** | BOM Cost + assembly labor, freight forwarding, logistics, customs, duties, etc. |
| **MSRP** | Target retail price? |
| **Acceptable Margin** | How much do you need to earn when selling a unit? |
| **Volume** | |
| **MOQ of First Production Run** | How many do you need to make the first time you run your production line? |
| **Annual Volume** | How many do you expect to sell per year? |
| **Timeline for Product Refresh (EOL)** | How long before you launch your product’s replacement? |

**ENVIRONMENT**

|  |  |
| --- | --- |
| **Storage Environment** | |
| **Temperature Range** | Through which temperature range might the product be stored? |
| **Humidity Range** | Through which humidity range might the product be stored? |
| **Operating Environment** | |
| **Indoor, Outdoor, Wearable** | Where and how will the product be used? |
| **Temperature Range** | Through which temperature range might the product be used? |
| **Humidity Range** | Through which humidity range might the product be stored? |

**INDUSTRIAL DESIGN**

|  |  |
| --- | --- |
| **Brand** | What should your product communicate about your company values? |
| **Renderings** | Place images of your product here. |
| **Color, Material, and Finish (CMF)** | Which colors and textures will be used? |
| **Logo size and placement** | Where will the logo be placed? |
| **Connectors**  (Power, USB, Lighting, Audio) | Which connectors, if any, does your product need? |
| **Visual Interface**  (Screen size and type, LEDs) | What will the product display, visually? |
| **Touch Interface**  (Mechanical actuators/switches, touch sensitivity, haptics) | How will people interact with their sense of touch? |
| **Audio Interface**  (Microphones, speakers) | Which audio inputs and outputs? |

**SOFTWARE ARCHITECTURE AND DATA PROCESSING**

|  |
| --- |
| **Block Diagram of Data Flow** |
| Paste an image here showing how will data be collected, transferred, processed, and shared. |

**ELECTRICAL HARDWARE AND SENSORS**

|  |  |
| --- | --- |
| **Block Diagram of Electrical Hardware** | |
| Paste an image here showing which hardware (e.g., sensors, screens, buttons) will be required and how they will connect. | |
| **Input/Sensor Requirements** | What should be sensed and to what accuracy? |
| **Output/Actuator Requirements** | How does the product affect its physical world? |
| **Critical BOM Components** | What are major electrical components? |
| **Communication Requirements** | With what and how fast does the product need to communicate? |
| **Power Requirements** | Should it be plugged into an outlet or powered with disposable or rechargeable batteries? If batteries, how long should it last between replacement or recharging? |

**DURABILITY**

|  |  |
| --- | --- |
| **Lifetime requirements** | How long should the product last before it is unusable? |
| **Cycles of various sub-systems** | How long should specific parts of the product last? |
| **Chemical resistance (sweat, sebum, sunscreen, salt water)** | Which chemicals should the product resist? |
| **UV resistance (sunlight)** | Should be product be UV resistant? |
| **Environmental (Dust, Water, etc.)** | Dust or water? Use IPX codes here. |
| **Mechanical (Drop, Vibration, Abrasion, etc.)** | What mechanical abuse should the product withstand? |

**PACKAGING**

|  |  |
| --- | --- |
| **In the Box** | What comes in the box? |
| **Unboxing Experience** | What should the user experience when unboxing the product? |
| **Printing, colors, inserts, cardboard type, drop requirements** | Which elements of packaging should be included? |
| **Retail Requirements** | Will your product be sold in stores? If so, are there size constraints for the shelves or other considerations? |
| **SKU Combinations** | Are there different options? Try to design for just one when you are starting out. |

**SERVICEABILITY**

|  |  |
| --- | --- |
| **Repair Services** | Will you repair or replace defective, broken, or unwanted products? |
| **Returns Process** | How would the customer return a product? |
| **Repair/Return Qualifications/Tolerances** | What defines a defective or broken product? |
| **Customer Support System** | How will customers contact your company? |