

## **Production Plan**

### **STEP1: PRODUCT CONCEPT**

Our team decided to create a whistle flashlight for natural disasters such as floods, typhoons, and flash floods. People who reside in areas prone to natural calamities, such as in Metro Manila is our primary target consumers. It can be used as an emergency flashlight and whistle in an emergency. It can, however, be used in any other application that the users deem appropriate.

### **STEP2: RESEARCH**

Because the Philippines is our target market, we discovered that the country is made up of islands, hence natural disasters are not uncommon. As a result, we come up with a product that is appropriate for the situation. In this regard, we have developed a flashlight with a whistle on the other side.

### **STEP3: DESIGN**

Our design product is a single stick that combines a flashlight and a whistle. It is made of polystyrene plastic and is therefore sturdy. It is lightweight and easy to transport. It's also a keychain, so it may be stuffed inside a bag's zipper or a key holder, for example.

### **STEP4: CREATE THE FINAL DESIGN**

We will utilize AutoCAD to create the final look of our product, a whistle flashlight. The product will be available in a variety of colors, allowing customers to select their favorite color.

### **STEP5: TESTING**

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### **STEP6: MANUFACTURING AND ASSEMBLY**

We will use a 3D Printing machine to create the product, which will employ polystyrene plastic to manufacture the product case, lens cap, and flashlight body where the whistle will be attached. After the printing is completed, we will prepare all of the product's components. The lens, the lamp or LED, the reflector, the lens cap, the flashlight body casing with a whistle on the end, the micro-Arduino, the switch, the 3000mAh rechargeable battery, keychain holder, and wires are all present in this case.

To put it together, we'll first program the micro-Arduino and then connect the switch, battery, and cables. Second, attach the Lens to the LED Reflector and Cap, then place the bulb or LED inside. Third, the attached material from step one will not be inserted into the flashlight body shell. Fourth, we'll combine the outputs from steps two and three. Finally, we'll add the finishing touches, which will be the keychain holder.

#### **STEP7: FEEDBACK AND TESING**

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#### **STEP8: OFFICIAL RELEASE**

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