This looks like an add on to any water bottle. Water bottles come in various forms and shapes. Can your enclosure accommodate all types of bottles? How securely will it fit into the bottle?

EN 1190 Engineering Design Project

Project Proposal - Aqua Tracker

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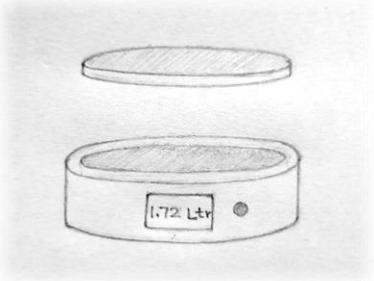
Structure of the Project

Initially, we plan to design a structure that can measure the weight of the water inside the bottle and can communicate with the user's phone, and that structure can be attached to the bottom of a water bottle. Along with it, an app is designed to display the information gathered from the device. A separate display is also used in the product to indicate information.



Sketch 1

Main Problem

In the modern world where everyone is busy in their own lives, many people often forget to drink the amount of water recommended per day which is about 3 litres per grown adult. This amount changes from person to person depending on their age, weight, and gender. Lesser water consumption leads to many health issues such as kidney stones, dehydration, decreased immune function, and many more. Higher water consumption also leads to more serious illnesses such as water intoxication and it may even cause death. Our product addresses both of these problems.

Benefits End Users Get from the Product

Users can keep track of their water consumption per day and they are reminded to drink the recommended amount of water through the app. So, they don't need to keep in mind to drink water anytime. Some patients need to consume a specific amount of water per day due to some health reasons and this product will be a great help for them. Also, user consumption is displayed in the product itself in a more graphical way using a display.

Our Implementations so the Product Fits in the Market

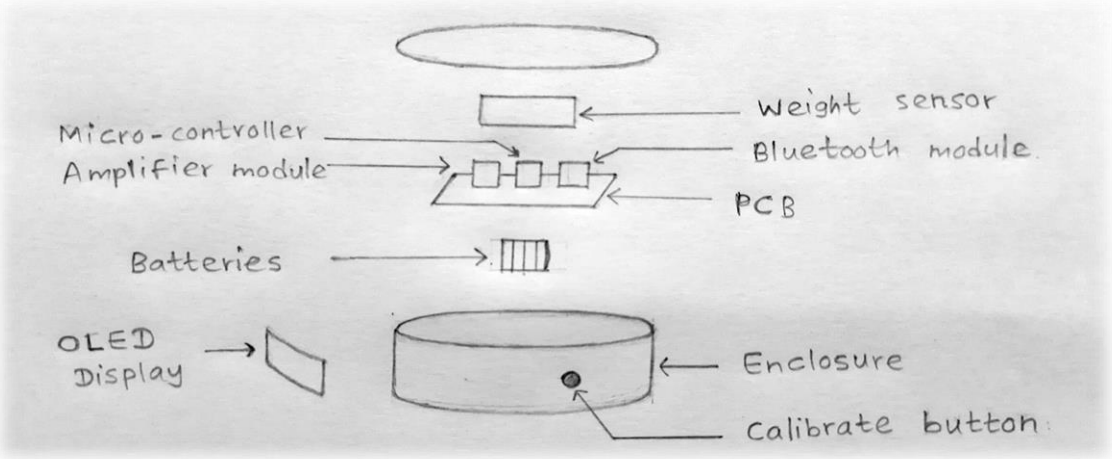
Smart water bottles already exist in the international market but not in the local market. Also they are more expensive (about 70-80 USD) and are the water bottles themselves, but our product is an extension to an existing bottle. We are designing a product to attach to an existing bottle, therefore users can fit our product into his/her own water bottle and keep track of water consumption. This will attract users who are keen on their health and already own a water bottle of their choice. Even if the user changes their water bottle, user has the ability to use the same product which he/she used earlier.

The Simplicity of the Product

Our product can be detached and re-attached easily. Calibration to measure the weight of the bottle can be done using a single button. The amount of water consumed is indicated through the display and an app.

Cost

We estimated that our product might cost approximately Rs.5000 at the end.



Sketch 2