



Department of Electronic and Telecommunication

Faculty of Engineering

University of Moratuwa

EN 2160 - Electronic Design Realization

Conceptual Design Report

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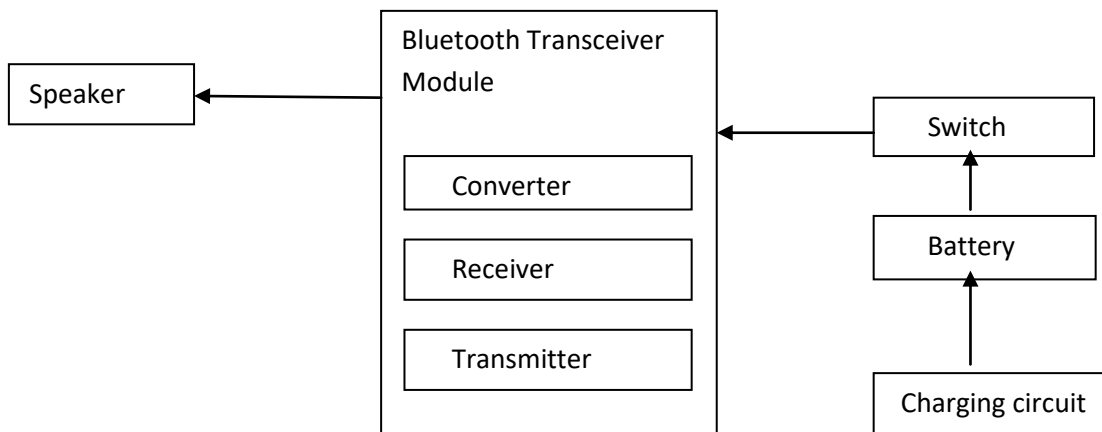
1. Introduction

In a design process, conceptual design is the initial step of the process. It is a method to describe the idea's result visually. In designing Design-driven approach and User centered approaches are used. Design driven approach is based on the ideas generated for the design while User centered design is based on the user requirements regarding the particular design.

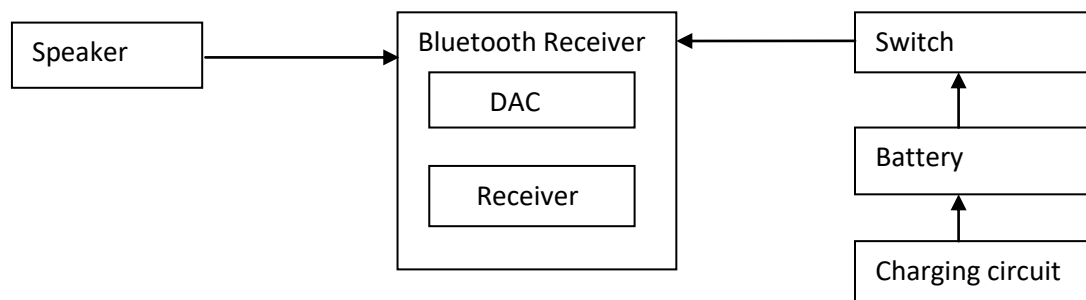
2. Design Driven Approach

This approach is only based on the ideas came out about designing the product. We came up with 3 block diagrams and 3 enclosures for the headphone.

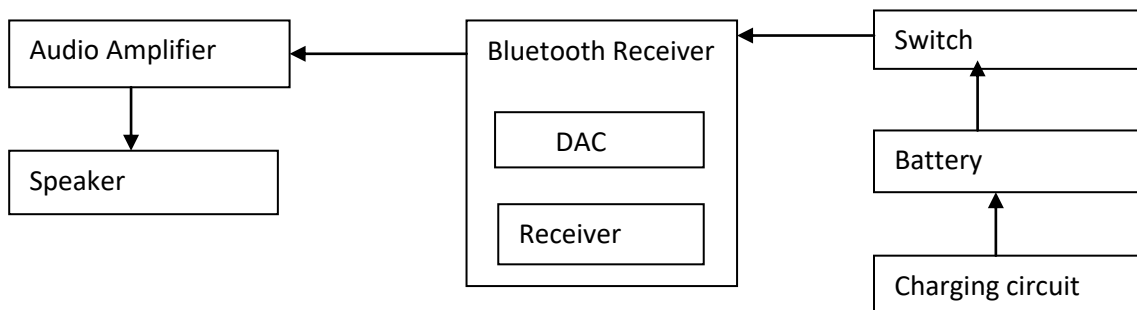
1) Block Diagram 1



2) Block Diagram 2

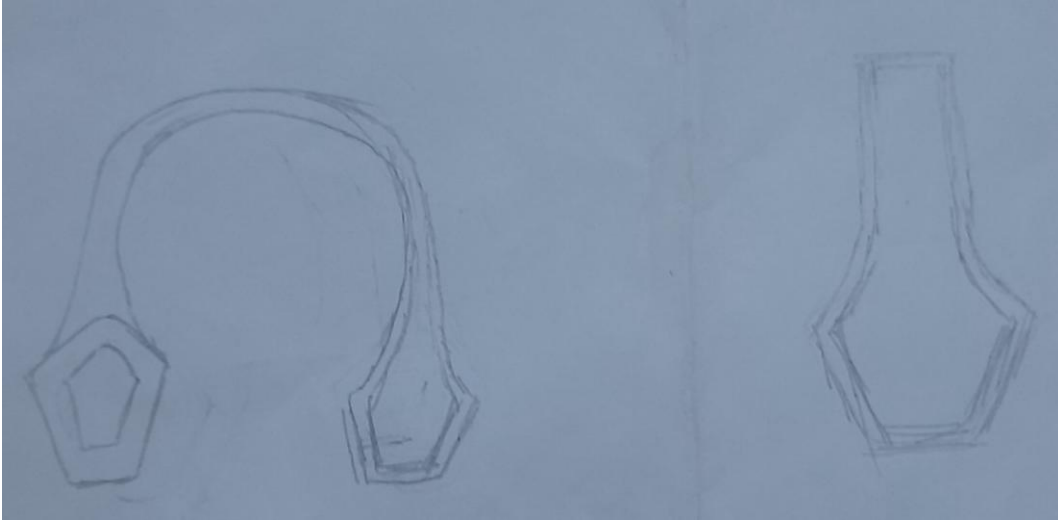


3) Block Diagram 3



Enclosure Designs

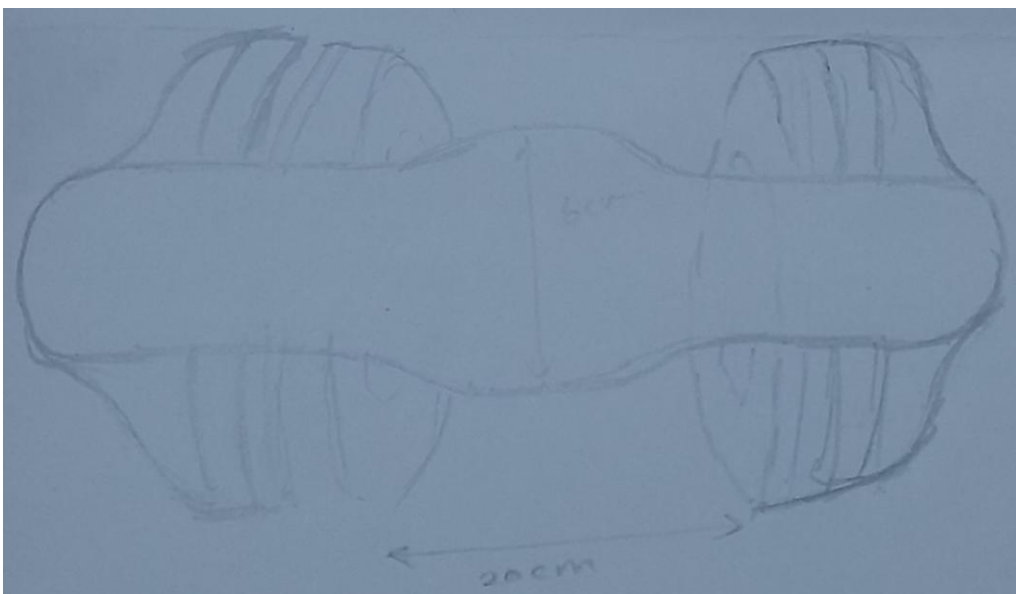
1) Enclosure 1

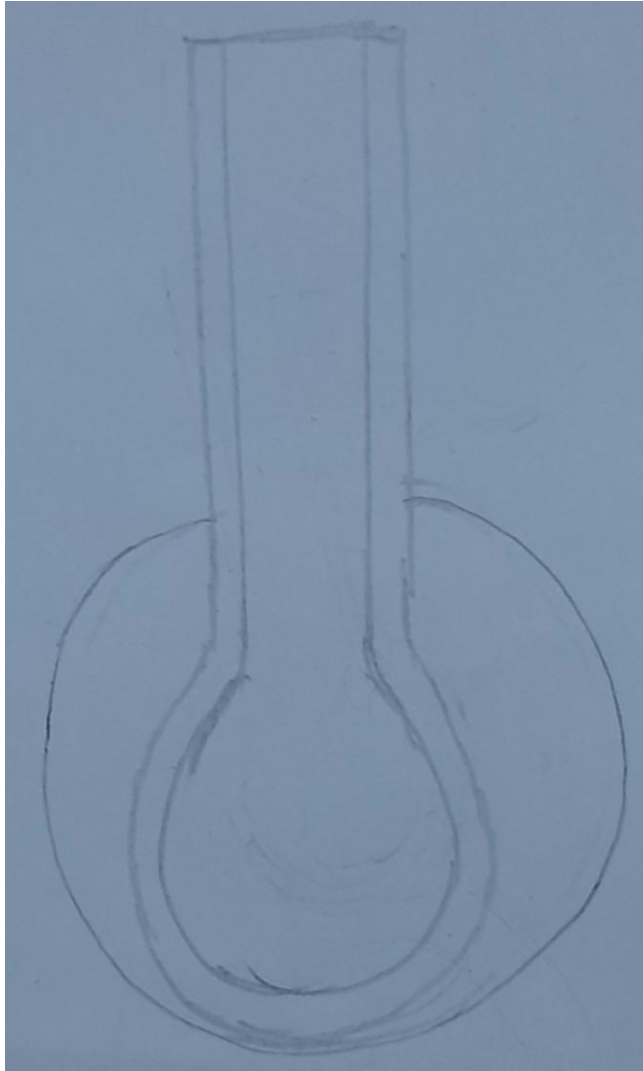


2) Enclosure 2



3) Enclosure 3





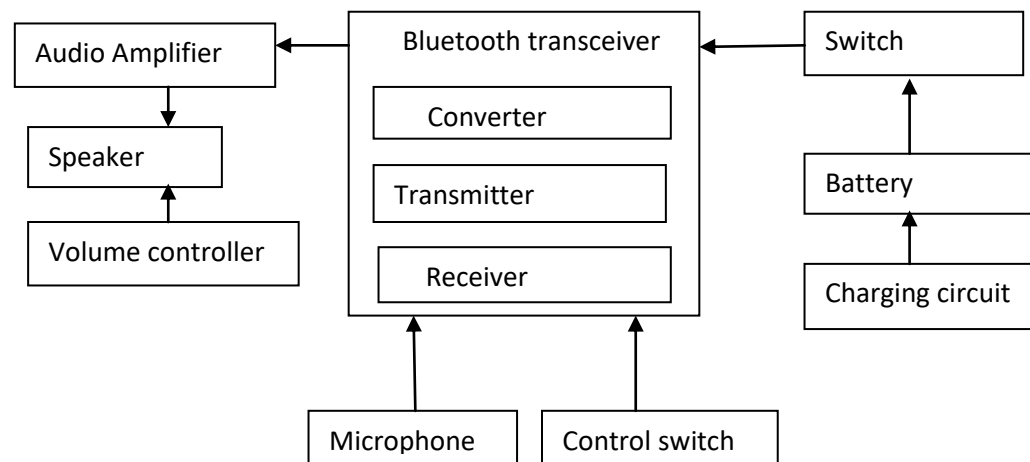
3. User Centered Design

User centered design involves the needs or suggestions of the users. We gave users our designs and asked their opinions and any suggestions to improve the product. If their suggestions can be implemented we took them into considerations and made slight changes to our initial design.

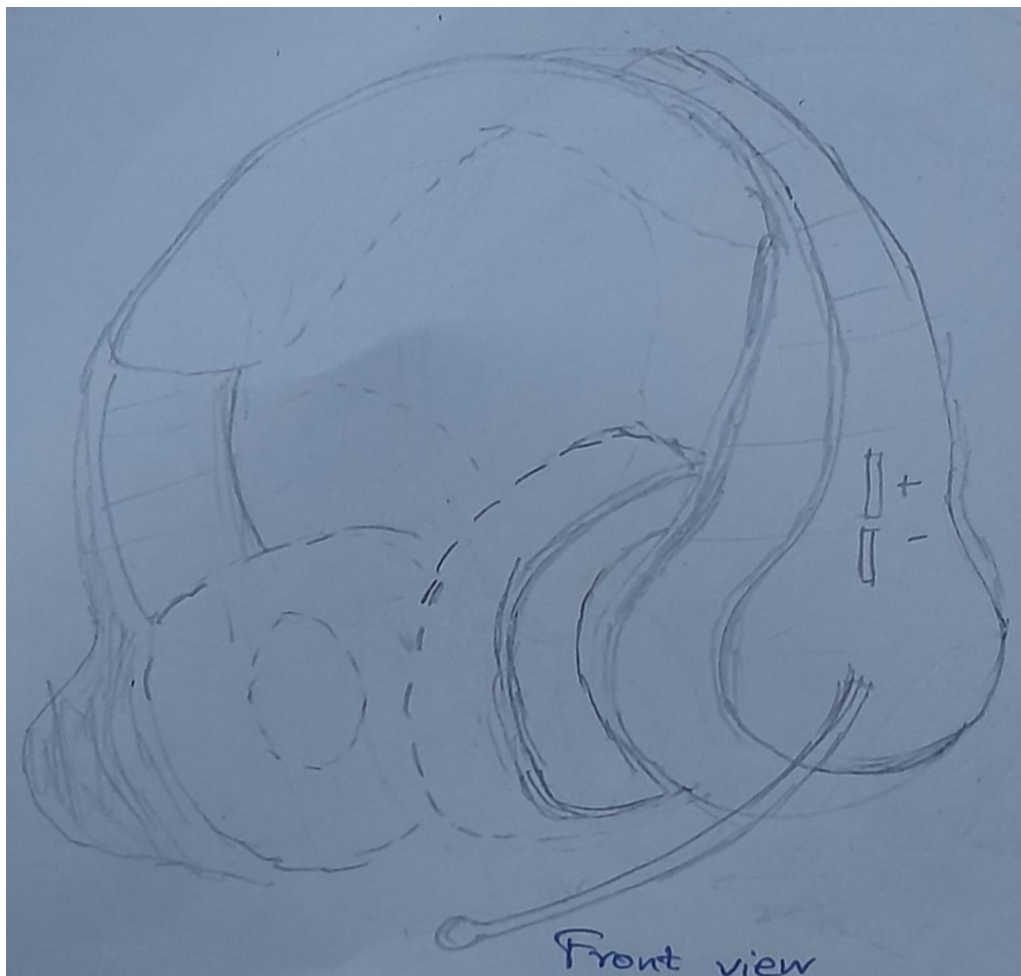
Suggestions

- Include microphone
- Volume controller
- Noise cancellation

Block diagram after user feedback



Enclosure after feedback



4.Evaluations

Block diagram evaluation

	Block Diagram 1	Block Diagram 2	Block Diagram 3	Block Diagram 4
Functionality	7	7	9	10
Cost	5	7	9	7
Power consumption	5	8	7	6
User friendliness	8	8	8	9
Features	7	7	8	10
Reliability	9	9	9	9
Accuracy	9	9	10	10
Total	50	55	60	61

Enclosre evaluation

	Sketch 1	Sketch 2	Sketch 3	Sketch 4
Attractiveness	8	7	9	9
Cost	9	9	8	7
Safety	10	10	10	10
User friendliness	8	7	9	8
Compatibility	8	7	9	9
Reparability	9	9	8	7
Durability	9	9	9	9
Total	61	58	62	59

Team contribution

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