

Licensing and Technology Transfer Opportunity: Manipal University

Title of Technology Available:

Modular Hybrid Audio Accessories (Earphones)

Brief Description of Invention:

The Invention is a multifunction Earphone, a convenience gadget, useful for everyone, anytime. It is a “one of a kind” Modular Bluetooth device which can be connected to a bunch of accessories in combinations, enabling it to function in both wireless and wired modes, as a Headphone or as a pair of Earphones with the added benefit of being able to charge the device simultaneously using the output device. This Modular Bluetooth Device houses a Rechargeable battery which supports all its functionalities.

Brief Background of Invention:

The main aim of the invention is to solve all the limitations faced by the conventional pair of wired/wireless earphones, namely:

- The fragility,
- Extreme costs to risk ration following the fragility in the case of wired pairs,
- Inability to use the earphones while the Bluetooth’s battery charges in the case of wireless pairs,
- The main issue of inability to use a wired pair as a wireless pair and vice versa.

Describe the final product:

- The final product consists of a Modular Bluetooth device which houses the circuit for the battery and the Bluetooth transmitter.
- This device functions as a Microphone when no accessories are connected to it.
- The Modular Bluetooth Device can be used as a wireless pair of earphones by connecting the Earphone cables endowed with drivers.
- It can also be used as a wired pair of earphones with the addition of another cable to the Modular Bluetooth Device. This cable shall be connected to the charging port of the user’s Output device (Eg. Phone).
- It can be enabled to be used by two people by adding a splitter between the Modular Bluetooth device and the earphone connection cable.
- It enables the specially designed headphones to run in Wired mode as well as Wireless mode by connecting the Modular Bluetooth Device to a Headphone.

Technological Domain (Keywords):

Modular, Hybrid, Earphones, Headphones, Wireless, Bluetooth, Wired, Ear Buds, Earphone, Splitter, Bluetooth Earphones, Bluetooth headphones, Hybrid Earphones, Hybrid Headphones, Earphone Drivers, Headphone Drivers

Proof of Concept:

The Proof of concept consists of

- A pair of earphones that show the Modularity feature.
- A Bluetooth circuit that proves simultaneous charging and Data transfer
- A pair of earphones that run on both Bluetooth and wired mode.

Stage of Development:

Ideation/Prototype/Advanced Prototype/Ready to Market technology:

- Prototype

Provide Information on Competitors who manufacture and/or sell similar products:

- NA

What are the unique advantages your innovation has compared to the competition:

- Trendy and unique
- Ability to use the device in wired/Wireless mode
- Cost efficient to the end user: Ability to replace damaged parts due to the modularity feature.
- Enables the user to upgrade to a better pair of Earphones/Headphones for a lower cost
- Versatility: The user already owns the Bluetooth Modular Device Encourages, can use more products, as switching from Headphone mode to Earphone mode is easy.
- Ability to charge the Bluetooth Modular Device using the User's output device while transmitting data/Audio.
- Reduces the E-Waste produced by the end user due to damaged Earphones/Headphones.
- Reduces the Pollution caused due the large number of batteries being discarded.

A few potential companies who might be interested in this technology:

JBL, Sony, Skull Candy, Audio Technica

Intellectual Property Status: Indian Patent application with number 202041008329 filed in 2020