

OToGear

Otogear Inc.



[www.otogear.co](http://www.otogear.co)

## Summary

**Flaunt it. If you make hearing protection cool, people will wear it!**

Otogear is a stylish, customizable, environmentally friendly, reusable earplug attachment designed to help make hearing protection more accessible and attractive to the general population. We are a student initiated start-up company that is taking the stigma out of wearing ear protection.

## Problem

**Noise induced hearing loss is irreversible.** According to NIOSH ten million people in America have noise induced hearing loss and four million American employees work in loud noise environments. Hearing loss is debilitating because it can impact a person's social, psychological, physical and even cognitive wellbeing. Noise induced hearing loss is preventable with hearing protection. Companies can provide earplugs for employees but it can be difficult to see if employees are wearing the earplugs. Plus, employees say they are not motivated to wear the hearing protection.

The World Health Organization (WHO) estimates that one billion young people worldwide could be at risk of hearing loss due to noise exposure. Over 43 million people between the ages of 12–35 years live with disabling hearing loss due to different sources of noise pollution. Among teenagers and young adults aged 12–35 years in middle- and high-income countries, 40% are exposed to potentially damaging sound levels at clubs, sporting events, discotheques and bars. According to the WHO, exposure to noise levels of 100 dB, which is typical in such venues, is safe for no more than 15 minutes. To put this into perspective, people of all ages recently witnessed the **Seattle Seahawks**, at Century Link field, break the world record for loudest sports stadium at an ear-splitting 137.5 dB, only to be outdone by the Kansas City Chiefs months later.

## Solution

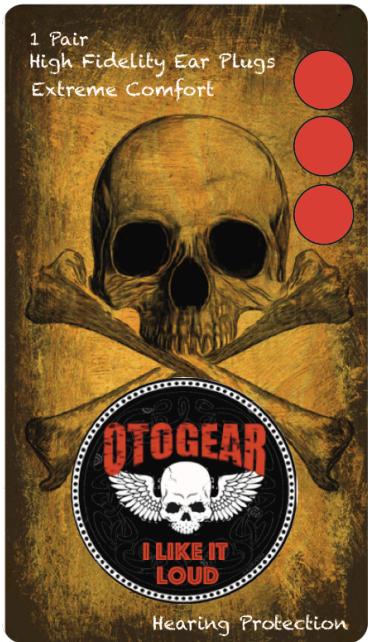
Why go high-tech with expensive breakable components? Go low-tech and flaunt it. Otogear is a patent pending interchangeable decorative attachment that is able to attach to majority, if not all, reusable silicone earplugs. The design of Otogear allows for customers to express their loyalty to a company, sport or hobby. Let people display their personality. Additionally, Otogear has the potential to expand to licensed designs, such as professional sports team logos, or custom designs for businesses/music festivals.



By becoming a piece of spirit wear, Otogear transforms an undesirable hearing protection device into a must-have item for sports fans, musicians, and other individuals that are regularly around high noise levels. This is achieved through decorative attachments (e.g., Seahawks logo, college mascots, company logos, high fashion and light up gear).



Otogear doesn't compromise the hearing protection aspect of the device because high fidelity silicone earplugs are used (e.g., 3M, Etymotics), which lowers the audio level of harmful sounds by up to 30 dB while keeping speech and other non-harmful audio clear. Additionally, Otogear is both reusable and made of biodegradable materials, with a convenient reusable storage pouch. Though the reusability of the product will allow for it to stay out of landfills, the biodegradable materials ensure that it does no harm in the event that it does find its way in the trash.



## Market Opportunity

The hearing protection device (HPD) market is relatively untapped due to the lack of awareness that reusable hearing protection even exists. Additionally, there are currently no commercially produced decorative ear plugs on the market-- disposable or otherwise-- presenting ample opportunity to create a new extension to the HPD market space.

## Competition

Competition is limited to several categories-- disposable earplugs, reusable earplugs, and over-the-ear “muffs”. Disposable foam earplugs represent the bulk of the hearing protection device market. Due to their low cost (in the range of tens

of cents per pair), they are often sold in bulk to businesses for OSHA compliance or to hearing clinics that distribute them at low or no cost. They are not aesthetically appealing and not designed to be reusable.

Over-the-ear “muffs” are a heavy-duty solution designed for scenarios such as shooting ranges and around large machinery. However, these ear protection devices are bulky and awkward to wear outside of these situations.

Only two comparable products are on the market at this time: (1) a handmade attachment for disposable foam sold by an individual on an online craft market, and (2) a high priced plastic option that does not meet the recommended noise protection levels and is not adaptable to different entertainment themes.

### ***Competitor Analysis***

Type	Price	Aesthetics	Personalization	Reusable	Noise Reduction
Disposable ear plug	Low	Low	Low	No	10-15 dB
Over the ear muffs	High	Low	Low	Yes	20-30 dB
Reusable ear plugs	Medium	Low	Low	Yes	20-30 dB
Dubs by Doplar Labs	High	High	Low	Yes	12 dB
NFL earplugs (foam)	Medium	Medium	Low	No	20 dB
Breakfast at Tiffanies (foam)	High	Low	Low	No	Unknown
Otogeard	Medium	High	High	Yes	20-30 dB

### **Market Segments**

According to leading research firm Global Industry Analysts, Inc. (GIA), the personal protective equipment (PPE) market is slated to reach \$20.5 billion by the year 2018. The PPE market contains several types of products, including hearing protection devices (HPDs). A separate analysis done by GIA predicts the HPD market alone will reach a cap of \$861 million by the end of 2015.

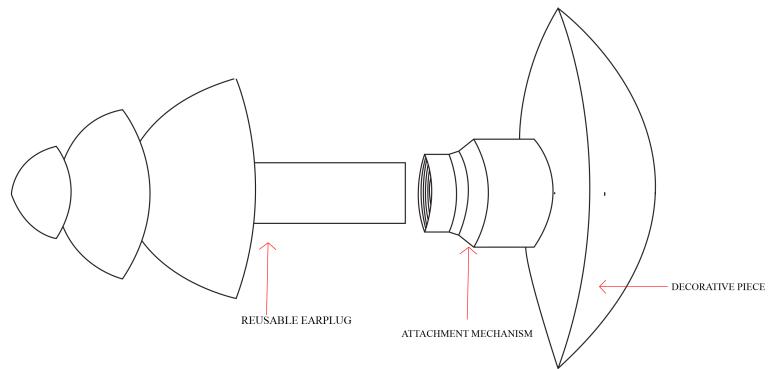
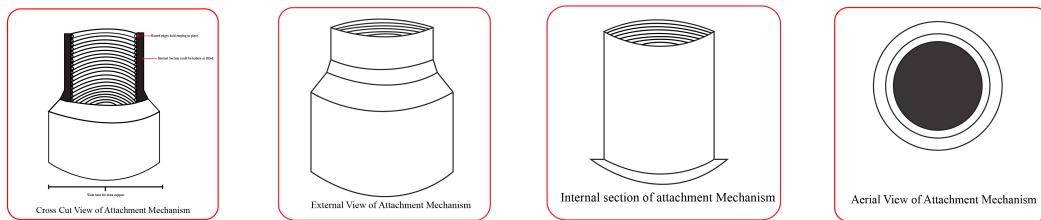
## Costs

The base silicon earplug can be purchased for approximately \$0.09-\$0.21 per pair. We are “Made in America”. The decorative attachment represents the bulk of the cost, with costs for a moderately sized attachment included below. Costs for the attachment range from upwards of \$15.00 per pair of attachments to as little as \$0.50 at a moderate scale (50,000 pairs). In total, at an order quantity of 10,000 pairs, the approximate cost for a pair of Otogear earplugs is \$6.00.

Designs range from generic graphics such as footballs, music notes, flowers, and racecars to licensed designs from professional sports teams and universities. For university logo licensing through the Collegiate Licensing Company, insurance, yearly administrative fees, and a royalty is required for each earplug sold. For music festivals, concert promoters can include themed earplugs with each ticket sold. **Make hearing protection cool and people will wear it!**

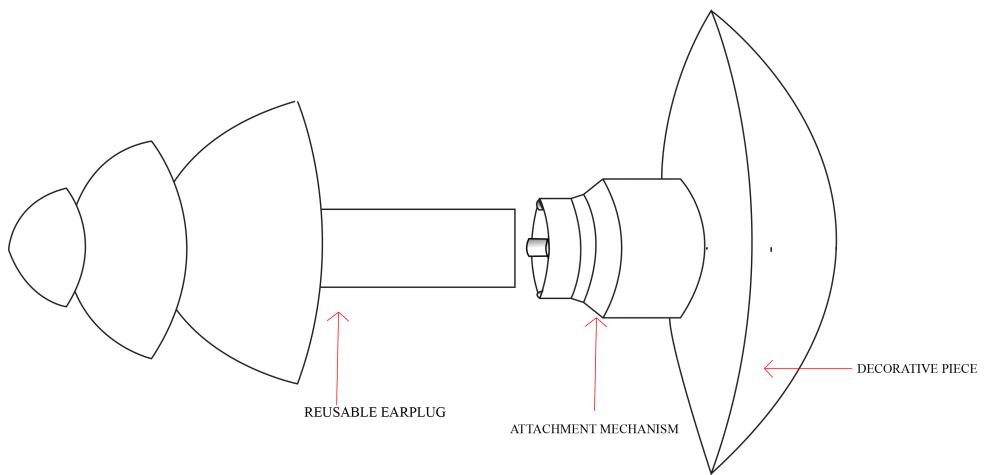
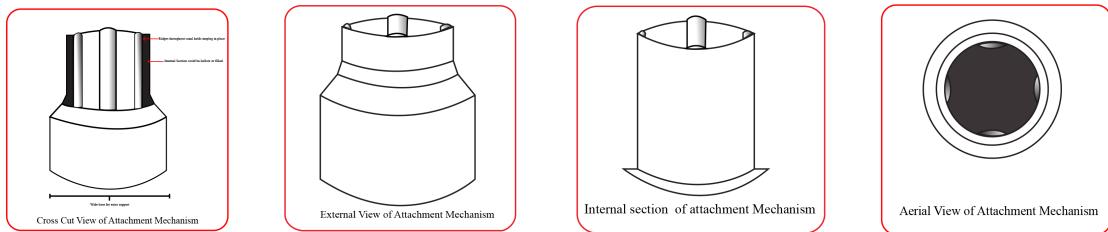


# Attachment Mechanism 1



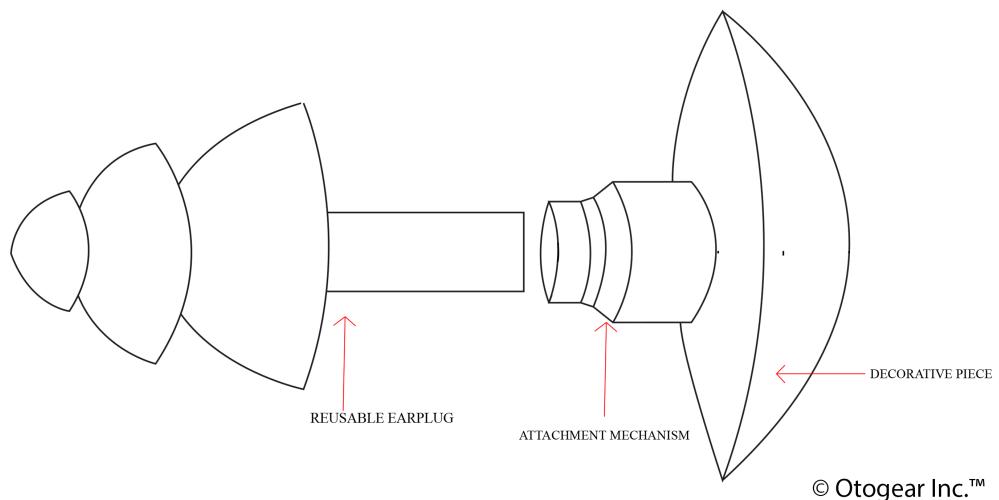
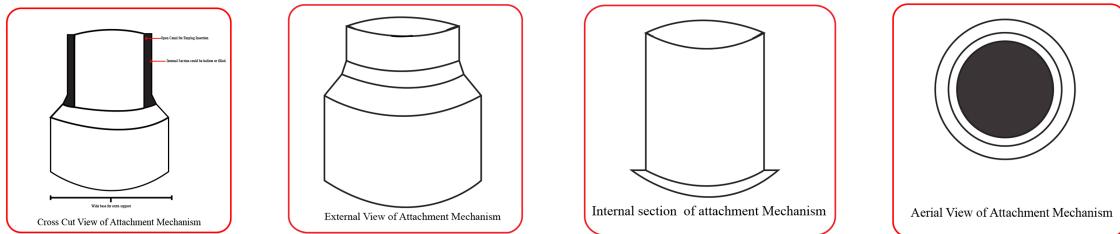
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# Attachment Mechanism 2

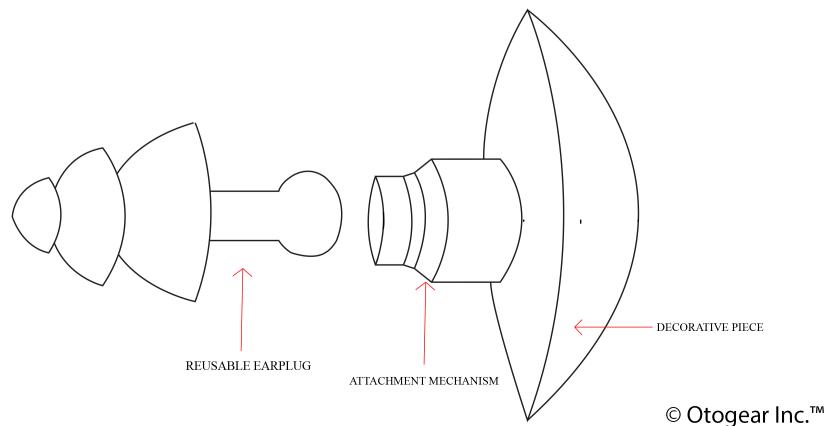
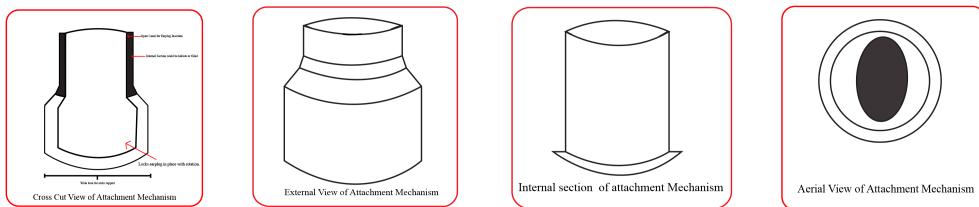


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# Attachment Mechanism 3



# Attachment Mechanism 4



# Attachment Mechanism 5

