

plug ■ The future of hearing protection

Introduction:

RNID's 'Don't Lose the Music' campaign, has been a huge success over the last four years, receiving an unprecedented amount of media coverage and creating a large impact in the public arena. However, the industry has yet to react to this market and there are still no hearing protection products that are designed for young people (16-30 year olds) at music events (clubs, gigs etc.). We have identified this clear gap in the market for hearing protection and we feel that we are best suited to execute the optimum solution. At RNID we pride ourselves on producing innovative products and on working in partnership with prominent manufacturers, industrial designers and students.

Background:

Social noise levels in the UK have tripled since the early 1980s. This means we are exposed to more noise in our daily lives than previous generations. From research carried out with over 1000 young music fans in 2005, we found that of the 56% of 16-30 year olds who regularly go to clubs and gigs, 76% of them have experienced ringing in their ears and/or dullness of hearing after a night out - the warning signs of permanent hearing damage.

Don't Lose the Music is not about preaching to young people or telling them not to listen to music, and it's not about reducing noise levels at concert venues or nightclubs. Instead, we aim to advise young people on how to listen to loud music safely. One way to protect hearing is by wearing earplugs. Good quality earplugs don't block your hearing; they attenuate the sound, which means the decibel level reaching your ear is reduced but most importantly, you can still hear the music you are listening to. We believe that this 'improved sound' message is more appropriate to the market than 'protection. If this approach were applied to the product design, branding and marketing of earplugs, more people would use them.



Problem:

Although there is growing awareness of hearing protection, young people still have reservations about wearing earplugs in clubs and gigs. One of the clear messages we receive from our target audience is that their worries stem from how other people will perceive them wearing earplugs. Don't Lose the Music research shows that young people have strong opinions about the current products on the market, for example "that looks like an older person's hearing aid or something....", Is how one person described them, whilst another said "It looks like NHS prescription. Horrendous." Current reusable earplugs (the type that lower noise by around 15dB), like other safety equipment, are designed to be purely functional devices. Earplugs are not designed with aesthetics or fashion in mind, in fact there is no ear protection product on the market that has been directly designed and marketed at the 16-30 year old music loving demographic.

Brief:

The main aim of this project is to investigate whether it is possible to do for earplugs what has been done for spectacles in recent years, and turn a medical product into a desirable one.

Your challenge is to demonstrate what a shift in design approach (from that of "problem solving" to an aspirational approach) could achieve. Your brief is to design a manufacturable concept for an earplug of the future, a product that young people will actually want in their lives.

Your product needs to target 16-30 year olds. Your product needs to protect hearing but not look like a protective 'safety' product. Packaging and marketing issues should also be considered and they should inter-link with the actual concept to produce a whole product.

The product needs to be manufacturable using established techniques and must feature a noise filter. The key is to add value to a simple product via good design; this could be by creating a unique selling point or just inherent desirability. You should look at the Hearwear website (www.vam.ac.uk/hearwear) for inspiration, to see how the selected product designers approached a similar brief and produced many varying solutions.

Scope:

RNID will perceive this project as a companion to the HearWear project. We hope some outstanding pieces of work will be produced, that will influence the industry and benefit our Don't Lose the Music campaign. We will use this project to persuade companies to develop and manufacture new products.

Submissions:

Deadline: 29th February 2008

Address: Plug Competition, c/o Tom Fiddian. RNID, 19-23 Featherstone St, LONDON. EC1Y 8SL

Electronic Submission: (burned on to a CD/DVD)

Concept: PDF Version of A3 Boards Presentation (up to 3 boards)

Summary: Short description of submission (150 words)

The CD/DVD has to be clearly labelled with your name, email address or other contact details.

Late entries will not be considered.

Prizes:**First Prize:**

The applicant whose submission the judges deem fulfils the brief the best will receive a work placement at a 'HearWear' design consultancy and a limited edition Apple iPhone.

Runners Up:

Two runners up will receive work placements at HearWear' design consultancies.

Best Submissions:

Our award winning media team will also promote the best submissions, generating regional & national interest in yourself and the project.

Exceptional Submissions:

A prominent London museum has expressed a strong interest in displaying the outcomes of the project, dependent on quality and the availability of space, and we would seek alternative space in another London venue if we were unable to display here. Therefore it is imperative that the work is of the highest standard for this to occur.

Work Placements

The detailed arrangements for each work placement will have to be agreed between the winners and the individual HearWear design consultancies. Although the winners of the work placements will be paid a remuneration fee (the sum of which to be determined by each individual design consultancy), no further travel costs or expenses will be paid.

Judges:

The competition will be judged by a select group made up for previous 'HearWear' designers and industry leaders.

Eligibility

This competition is open to all students, worldwide, who at the time of preparing their submission are registered at a Higher Education Institution.

Queries

Any questions concerning the brief and arrangements for the competition may, until 1st February 2008, be addressed to Tom Fiddian, 19-23 Featherstone Street, London EC1Y 8SL.
Email: thomas.fiddian@rnid.org.uk

General Conditions

- The drawing and design copyright shall remain with the authors
- By submitting your entry, you grant the Royal National Institute of Deaf People, perpetual license and right to use your name, likeness, and your entry (and any derivative works thereof) in any news articles, releases, websites, promotional materials and other marketing and/or informational materials.
- Each student may submit more than one entry.
- Entries will not be returned. Authors are advised to keep copies of drawings submitted for the competition.
- The results will be announced by 18th March 2008 and displayed at a later date.
- The judges' shall have full freedom to decide on the awards and their decision shall be final and binding on all the participants.
- There is no cash alternative for any prizes.
- Prizes subject to change.

Appendix A:

Hearwear designers:

In 2004 RNID, in partnership with Blueprint and Wolff Olins, commissioned fifteen of the UK's top contemporary designers to design desirable and innovative hearing products, with the aim of making hear wear as acceptable as eyewear. The contributions demonstrated how, by taking a new approach to a market, considered radical new possibilities in hearing products for everyone, not just hard-of-hearing, can be produced. The concepts were displayed in the V&A Museum in 2006, where they became one of the year's most popular exhibitions, and generated a large amount of media and public interest in the hearing products market.

The designer involved in 'HearWear include:

- The Alloy
- The Brewery
- Daniel Charny
- Design Works
- Guinea Pig Design
- Hulger
- Human Beans
- IDEO (London)
- Industrial Facility
- Kinneir Dufort
- Pearson Lloyd
- Pearson Matthews
- Priestman Goode
- Ross Lovegrove
- Tangerine

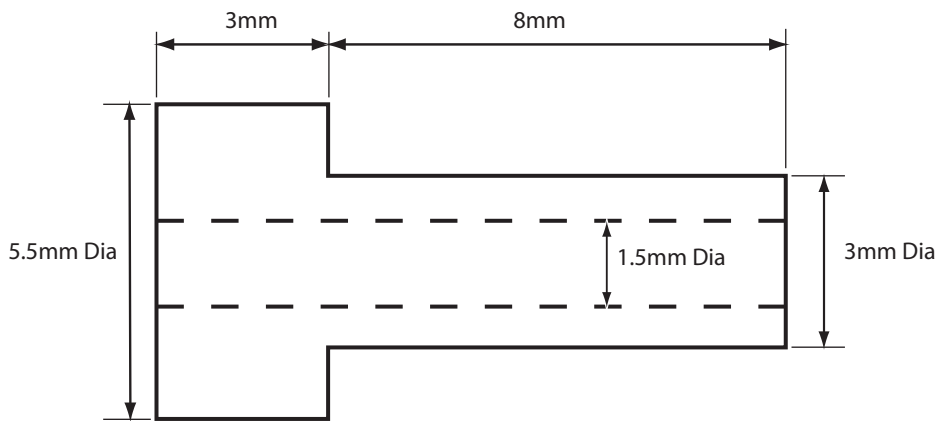
These designers are continuing their relationship with RNID by supporting the 'plug' project. A number of designers are offering work placements at their design consultancies as a prize for the winning entrants - a prize that money can't buy. They will also be judging the competition by giving their valued opinions and picking the winning work.

Appendix B:
Technical Data:

Filter:

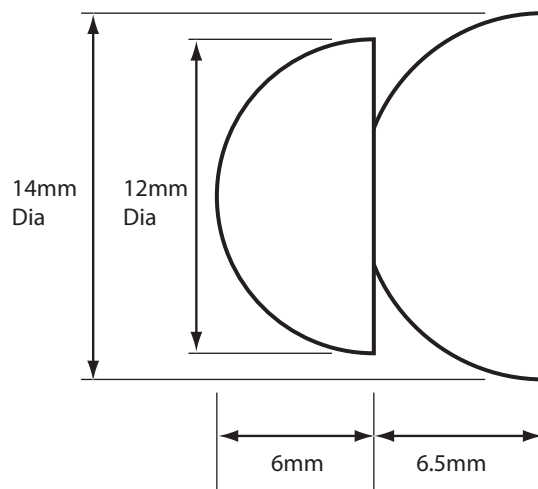
The earplug will have to include a filter to attenuate the sound. There are various types but they are all a similar size.

Below are the dimensions of a typical noise filter. Please note that the earplug cannot block either end of the channel in the filter.



Seal:

There are various different ways that earplugs can create a seal to the ear canal using foam and rubber gaskets. Below are the external dimensions of a typical rubber gasket of an earplug to give you an idea of the size in a typical design.



Appendix C:

Quantitative Research: Statistics

The following statistics are taken from a national survey conducted by RNID. 1,400 16 to 30 year olds across the UK were asked to answer questions about their hearing and their social activities. You will find information about what they said about earplugs below.

Wearing earplugs

Wearing earplugs

- 3% of people wear earplugs on a regular/occasional basis
- 13% of people have seen other people wearing earplugs
- 15% of men have seen other people wearing earplugs, compared to 11% of women (to some degree this reflects the fact that men go to clubs more frequently than women).

- People who go clubbing more often are not significantly more likely to wear earplugs

- People who go to gigs once a week or more are more likely both to wear earplugs and to have seen other people wearing earplugs at clubs or gigs

- 32% of people who go to gigs once a week or more have seen other people wearing earplugs compared to 15% of people who go twice a month or less.

Attitudes Towards earplugs

- 18% of people have never worn earplugs but would consider doing so.
- 34% of people think earplugs look silly and would not consider wearing them.
- 28% of people like loud music so would not wear earplugs.
- 24% of people rarely go clubbing so don't think wearing earplugs is important

Impact of how often people go clubbing

- People who go clubbing more frequently are more likely to show some resistance to wearing earplugs – only 14% of people who go clubbing twice a week or more said that they had never worn earplugs but would consider doing so, compared to 21% of people who go once a week or once/twice a month. When looked at in more depth, it appeared that this can be explained by looking at the impact of respondent's age. Older respondents are less likely to go clubbing so frequently and more likely to consider wearing earplugs.

- Other statistics from the research gave some insight into the reasons for this group's resistance to wearing earplugs - 45% of people who go clubbing twice a week or more said that they think earplugs look silly and would not consider wearing them, compared to 32% of those who go less often than once or twice a month.

- Similarly, 42% of those people who go clubbing twice a week or more agree with

the statement 'I like loud music so won't wear plugs', compared to 22% of people who go clubbing less often than once or twice a month. Again, age plays a role in this – older people are less likely to go clubbing so frequently and also less likely to agree with the statement 'I like loud music so won't wear earplugs'.

Impact of how often people go to gigs

- Relative to other groups, people who go to gigs more frequently are more likely to cite the fact that they like loud music as a barrier to wearing earplugs rather than the fact that they think that earplugs look silly.
- People who go to gigs frequently are more likely to agree with the statement 'I like loud music so won't wear earplugs' – 43% of people who go to gigs once a week or more agreed with this statement compared to 30% of people who go to gigs twice a month or less.
- In contrast to people who go to clubs, people who go to gigs frequently are less likely to say that earplugs look silly – only 25% of people who go to gigs once a week or more agreed with the statement 'I think earplugs look silly and therefore will not wear them to clubs/gigs', compared to 37% of people who go to gigs twice a week or less.

Age

- Older people are marginally less likely to say that they think that earplugs look silly and would not consider wearing them - 37% of 16-20 year olds agreed with this statement compared to 27% of 26-30 year olds.
- As people get older they are progressively less likely to agree with the statement 'I like loud music so would not wear earplugs' – 35% of 16-20 year olds agreed with this statement compared to 28% of 21-25 year olds and 20% of 26-30 year olds.
- Similarly, older people are more likely to agree with the statement 'I rarely go clubbing so don't think wearing earplugs is worthwhile' – 32% of 26-30 year olds agreed with this statement compared to 19% of 16-20 year olds.

Knowledge about earplugs

- 22% of people knew there were different types of earplugs for different situations (note 78% didn't know this)

Appendix D:

Quantitative Research: Quotes

The following quotes are taken from focus groups conducted by RNID. 6 focus groups containing 6 to 10 people aged 16 to 30 were run in various cities across the UK (London, Glasgow, Birmingham, Manchester and Southampton). The aim of the groups was to find out more about the reasons behind the results we got from the quantitative research.

Don't know enough about them....

"I wear earplugs sometimes when it's really loud but, but, I mean you don't know how well they're actually working, I'm not really aware on what are the best type of earplug to use, I'm generally not very educated about it" (London1/F/age 22 - p21)

"yeahthey're a functional thing, if you knew you had to wear them then you would, or you knew the real affects of ringing in your ears, I don't know what the real affects are, so I don't consider wearing them, those that do, well they would I suppose
(Southampton/F/25 – p11)

How to wear them/practicalities

"I always think they're gonna get lodged in my ear, I know that sounds really stupid but if, if you, if you think about it, .it is quite small... I look at it and think 'that's gonna get lost'
(Southampton/F/17 – p12)

"I don't know if I'd like to stick little things in my ear that much (laugh), I know it wouldn't feel that nice..... cause they look like they go in quite far, I don't know if I'd like having that in my ear, but then I haven't' tried it so it might be alright once I've stuck in" (London1/M/20 – p22)

Lessons experience

"it seems a bit self defeating doesn't it, I mean the whole prospect of going into a gig or a club to hear music, and then er, as you walk through the door putting your earplugs in, it's like I know, I don't think people are aware of them, I think there's a balance between the two I think, people think that if you wear earplugs you can't hear anything at all, not that it muffles the sound or, that it brings it to a more acceptable level but, I dunno, I just think people want to hear who they've gone to see, and so, why try and diminish that in anyway" (Southampton/M/22 – p8)

“but I wouldn’t wear them if they like, deteriorate the quality of like, you know like, sound like, I wouldn’t wear them if it didn’t sound as good”(London 1/M/ 16 – p4)

Look

“well I probably would wear them if they were erm, more discreet, it’s a vanity thing, I don’t wanna walk around with things sticking out my ears, so if they were like really small and er, could fit right inside.... I would definitely consider it ‘cause, well I have worn earplugs before, like my dad..... he does clay pigeon shooting so erm... but obviously like everyone’s wearing them then so you don’t feel silly but at a gig, no one’s wearing them so” (Southampton/F/ age23 – p10)

“I think also you kind of want them to be quite discreet as well, I personally would, I wouldn’t want you know glowing colours or anything” (London2/M/age25 – p28)

Officialdom (only wear them if have to/official)

W: “well I’ve never used earplugs and don’t think I ever will but, I find it, like when I go and see bands and stuff I notice that they do, but they do it like every night, so it’s something that will probably affect them more than most, like gig goers

H: yeah but I’ve got a friend who works at the BBC and he records live music so, he, he wears them all the time, but I think he’s studied this so he know what, what damage its doing I think”

(Southampton/M. W. age17/F. H. age 25 – p7)

“My friends who are sound technicians all wear earplugs, but that’s, standard basically, but, my friends who are, performers they, some of them do some of them don’t but one of them, wears, really nice earplugs and turns his guitar louder than everyone else (laughs), which is just ridiculous, there’s no point in it, but a lot of people do wear them, that I know, not everyone” (London 1/M/ 20 –p5)

“I know a few musicians who do, but maybe not so many people who go out clubbing” (Manchester/F/21 – p19)

Seen people in clubs wearing earplugs

“Yeah I think definitely people are wearing them more, and like people are just wearing like

the luminous ones, just, because....yeah they are, they're kind of making a bit of a, you know, they're not trying to hide it, and, if I saw them I'd think, fair enough, probably sensible....more sensible than the rest of the other people" (London 1/M/20 – p4)

"I know lots of people who do, mostly Swedish students actually, every Swedish student I've ever met wears earplugs when they go out" (Birmingham/F/25 – p5)

Exposure can be positive

"I actually see it as quite positive, when I look at them I kind of think that they're quite a, I don't know, I just think that they probably have a good reason for it or that they're being quite responsible or that they're just frequent, frequently go out and they actually have to watch their hearing because it is a serious problem, so I actually have quite a positive view of it usually, but these are usually like, like clubbing mates, where everyone's dancing, it's more about that than than talking" (Glasgow/F – p25)

"well I think they look good, I've just put off getting them for ages 'cause I keep forgetting, where, whenever I go near a shop its just the last thing I think about getting and, until I just made a real mental note, make a specific journey to go and get them 'cause" (Manchester/M/24 – p17)

Maybe should wear them but haven't

"I mean I think you kind of should wear them, I don't, I know I should but I don't know I think there's just, you know it's just trying to get over some sort of hurdle that you have as to why you should wear them without actually doing it" (London2/M/25 – p3)

"I do, I feel guilty, I think, you know, you've done it again, why don't you take more care, why don't you go out and buy some earplugs and think about it before and not after?" (Glasgow/M/ – p15)

Na: I would probably think about using earplugs and as I said erm, a lot of the Swedish students that I know, Whenever we go out even it's just a bar or pub where there's just music on the stereo they will all put earplugs in..and if they haven't got them they'll just put tissue in their ears as well..... and they're all very very sensitive to loud music, I sat in a brass concert once with a Swedish student and she didn't have anything, she was like that Oh my god I can't, you know, really worried that her hearing was gonna be affected from kind of being sat

in this

J: Is it a big thing over there then?

Na: I think, they're all saying there's a big push with it.... So I mean there must, there must be something to that, it is like every single Swedish person I've ever met"

(Birmingham/F. N. age 25/F. J. age27 – p25)

Do wear earplugs

"I need my ears too much to be, risking it, so a couple of quid, to go clubbing...well it's my life, it's my livelihood in a way, so...well I mean there's no reason to .. is there, there's no reason to, to put yourself at risk in a way (Manchester/M/21 – p15)

C: "I bought some earplugs, on the way up here not, anything to do with today but, just because, I've had ringing in my ears recently and almost, everyone I work with or talk to have been talking about it and erm, know people that know people, that have lost, their hearing, or started to lose their hearing that have, been sort of unable to work because of it

T: I started to wear earplugs when erm, I, as I say, I do some, recording work, and erm, I turned up, to do, recording one day and I just couldn't hear properly, I couldn't' hear 'cause I'd had ringing in my ears 'cause I'd been out"

(Manchester/M. C. 25/M. T.21/ – p8)

Possibly would wear earplugs

"I would now, now I know about it" (London 1/M/20 – p8)

"well I think I would [wear earplugs], its been on my mind before, I have thought oh what am I doing to my ears, you know I might have to take that step, but now I know the different options and in a way, the like confirmation that you can do something especially if my hearing gets worse or anything like that, I guess, it would be a bit hypercritical to think oh, but I will have to wait for it to get worse until I do anything about it, which is probably a bit self defeating but, in the future I would definitely consider it a lot more" (Southampton/M/22 – p17)

"I might go and buy some this Saturday (laughs)" (Manchester/F/21 – p17)

"the clear ones, if I went to a nightclub and it was really loud and my friends were there I'd probably buy the clear ones" (Birmingham/M/30)