# SILENCE 

Turn on, tune out.

## BY JOHN FRIZELL

"You have to do something about this awful music," said Ellie. "I don't play it loud."
"I didn't mean you. It's ... everyone."
"I can't be responsible for the musical tastes of the entire world."

A deliberate misunderstanding was typical of her little brother. She glared at him.
"OK. I'll get some stuff."
They were meeting in the neutral ground of the living room. Jamie sloped off to the seething maelstrom of mechanical creatures and things he called a room and returned carrying a red plastic box. She looked into it as he put it down. Nothing was moving.
Jamie put Out of Space on the music system and turned it up until she winced.
"That's ghastly."
"How's this?"
He fished something that looked like a big set of orange earmuffs out of the box and she put them on. The dreadful beat softened, almost vanished.
"That's better, but ..."
Her voice sounded funny. It wasn't just the music, she couldn't hear herself, couldn't hear anything.
"What are these?" she said, handing them back.
"Ear defenders. I wear them for grinding or cutting or when you and Mum argue."
"It's just the music I don't want to hear. I have to be able to hear everything else."
"That's going to cost you."
They settled on a month of gourmet desserts, prepared by Ellie.
"Starting tomorrow night."
"Starting when it works."
"It will be working tomorrow night."
Ellie put on the headphones Jamie handed her and looked dubiously at the pile of circuit boards into which they were plugged. She could see bare strips of copper on two of the boards. It didn't look safe.
"Test version. Final result will be wireless and fit in your purse. Check it out."

He cranked up Out of Space. The beat pounded on her ears.
"This doesn't work. I can still ..."
Abruptly the relentless beat died away.
"What do you think?"
She could hear him clearly, but not the music. She lifted one side of the headphones to check it was still on and quickly clamped them back.
"It didn't work at first but now it's perfect." Jamie smiled.
"It samples the track then it phones a service to get the name. That's why you can hear the music for a few seconds. Once it knows the track it selects it from its database, syncs it up and then uses the waveform of the track to block out the incoming waveform."

She was not quite sure what he meant but could see the weaknesses.
"So I'm always going to get a blast of sound, and if someone plays a song that isn't on the database, I'm going to hear it."
"Well, yes."
"It's really good," she said, using her best positive, reinforcing voice, "but not quite what I need. I'll do you crème brûlée tonight and it won't count as part of your month's total."

Jamie could make anything work and, with
wearing headphones all day."
"Why not?"
"Because I'd look like an idiot," occurred to her but Jamie didn't understand anything to do with look or style.
"Some kids wear headphones all the time they aren't in class. Girls even."
"Losers," thought Ellie. Aloud she said: "I wouldn't want the people whose music I'm tuning out to know."

He looked at her thoughtfully.
"I like the way you wear your hair."
Amazing! A compliment from Jamie. He was actually noticing her look. If he cared about how other people looked she could get him to care about how he looked. And once that was accomplished she could find him a girlfriend. Her mind raced, sorting though the younger sisters of her friends.
"I'll get some Eartalkers or hearing aid

her encouragement, he would. She went to the kitchen, got a vanilla pod from her spice drawer, split it lengthwise, scraped the seeds out while thinking of the social advantages of actually being able to follow conversations at parties, and then she cut the pod up into small pieces and cracked six eggs, separating each into white and yolk. She would find something to do with the whites later.

It took Jamie more than a week but the results were spectacular. Admittedly she had to train the system by pressing a button when she heard music she didn't like, but once she had done it the music never came back, not even if she pressed the training button halfway through and the music restarted from the beginning. Jamie went on about tonal analysis, pattern recognition, neural net processing, context algorithms and other mysterious stuff. It sounded like he would get another patent out of it and even more money in his trust fund.
"Just one little thing. These headphones are nice and very comfortable but I can't go around

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inserts that are retained by your ears. The hair will cover them. Stealth."
"Oh. Well. See you in the kitchen."
Jamie loved rich desserts - nothing stuck to his skinny frame. He was shovelling down the syllabub. Ellie allowed herself only a single teaspoon, just to get the taste. She had zested a lime and a lemon for this and she was convinced that the combined citrus taste was much better than the standard recipe of lemon alone. She had added a bit of cardamom as well, giving the traditional English dessert a hint of something Middle Eastern and exotic. She decided on a second teaspoon.

Jamie was talking happily between bites about how he had accomplished this latest feat of engineering. She smiled and nodded in the pauses. The thing could detect more patterns than just the ones in music - she could see his lips moving but she could not hear a word he said.

John Frizell was trained in biochemistry and works on ocean conservation for Greenpeace. In his spare time he walks, builds robots and writes short stories.

