

Speech draft of the technical proposal

Good morning, everyone:

I'm Vito, a student from Computer Science. When I was a child, like 7 or 8 years old, I went to the supermarket with my parents to get some daily supplies. The crowd in the supermarket was *super* heavy, and my parents did not pay much attention on me. I eventually got lost, wandering and crossing alone aisle by aisle. Soon, the public address system announced that "Vito, your parents are looking for you. Please get to the checkout *AS SOON AS POSSIBLE*." Even though I was a 7-year-old boy, I felt very embarrassed. Since maybe someone in the supermarket knows about me, and they might be laughing at my stupid behaviour on getting lost with my parents. At that time, I wondered, why didn't we have such a device, that can send audio messages to a specific person rather than broadcasting the message to all presenters. Such functionality is also useful when your roommates set a clock at 7 but it ranging from 7 to 10 and wake everybody in the dorm. So here comes my product, Anysound, a ball-shaped speaker, and can generate directional audio laser from the horn, to anyone in any scenario.

The typical sound wave human ears can hear is around a frequency of 20 thousand Hz. The frequency is not high, so the wave length of the sound wave is like that long (gesture). During the sound wave traveling in the air, it will diffract, and spread out such that even these two people cannot see each other, they can hear other's voice. The magic of Anysound is that the electronic device in the speaker can modulate the sound wave to 60 thousand Hz, which generally human cannot hear, but bats and cats can. The frequency is so high that the wave length is extremely small, and the sound wave does not spread out and travel just like a torch light, only the targeted person in the beam path can receive the message. And since air is a non-linear media, it can demodulate a specific range of sound wave frequency, and recover the sound to the receivers.

Such a technique has been applied in the U.S. Army, but the speaker they used is very large, and we make it a tiny speaker unit. Group tens of speaker units surround the ball, such that we can control which direction of the message should be sent, and what message to be sent. We will public and provide these interfaces to the companies, like the supermarket, and individual developers, so as they can customize and change the backend logic and algorithms. We hope to make it easy to use, and easy to program. You can hang everywhere with power supply, and control Anysound with limited efforts.