LOW CONSUMPTION SOUND RECOGNITION SYSTEM

Description:

Among the low-cost and low-consumption systems are mobile robots for educational purposes, but currently they lack a sensor that allows the recognition of sounds and that can be integrated into low-performance platforms. On the other hand, musical applications for educational purposes are increasingly widespread, but to be really useful they require a listening system that decides whether what sounds is correct or not and that it is not expensive. Thus, the present invention refers to a low-consumption, easy-to-integrate, multipurpose sound detection system to be used in any type of system. Among the systems in which it can be integrated, we must highlight the low-cost embedded systems that require a sound recognition and / or detection system, whose cost is appropriate to the system in which it is to be integrated. In addition, the system allows it to be easily integrated even on the same board of the embedded system as well as to be connected following any of the communication protocols existing today. This new system does not need any calibration or configuration for its operation, allowing two modes of operation: basic and advanced.

Keywords:

Robotic, Software, Sound Recognition, Tones, Hardware, Toy

Sectors:

ICT, Electronics

Areas:

Hardware / Devices / Components, Software / Procedures, Electronics, Equipment, Components

Advantages:

Among the advantages of the present invention are: • Ease of use and integration. • Low consumption. • Versatility. • Modular structure. • Allows you to add sound detection and recognition capabilities to existing systems without adding infrastructure or modifying the original system. • Allows you to implement a specific reaction to a specific sound. • Supports hearing impaired users. • Provides support for music teaching.

Uses and Applications:

The present technology is useful for applications that include the detection of sounds, the recognition of sounds and the recognition of tones, suitable for the toy sectors, alarms, intruder detection, presence simulation, etc ...

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