

### Digital technologies

Making the impossible possible

### Energy saving

Smartly operating on little power

### Durability

Long-lasting user confidence

### Compact size

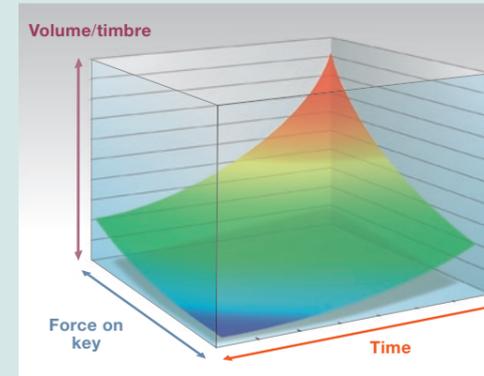
Compact, slim, lightweight

### Ease of use

Easy for anyone to use

## Casio's Ever-Advancing Core Technologies

Casio is constantly developing its five core technologies to make it possible to turn groundbreaking ideas into actual products.



AiR Sound Source generates natural changes in tones as they fade away

## Technology

### Creating New Amazement with Technology That Makes the Impossible Possible

Casio makes the most of its original digital technology to take on the challenge of making the impossible possible—in more ways than one. One example is the Casio AiR Sound Source, which digitally recreates the rich sound and tonal qualities of a grand piano. The harder the player hits the keys, the brighter and more powerful the sound, while a soft touch enables gentle, delicate expression. Not only that, the transitions between levels of hard and soft playing are virtually seamless. AiR Sound Source delivers sound with natural depth by adding three-dimensional sound morphing from the time the note starts until it dies away. This very closely mimics the unique sound of a grand piano, where the wooden case and strings resonate together. High-speed arithmetic processing enables the instant-to-instant simulation of the complex changes in tone that occur inside a grand piano. This would be impossible using a conventional PCM sound system, which uses only pre-recorded samples for each note. Casio keeps pushing the frontiers of digital technology to do the impossible—and digital technology is just one of Casio's core technologies.

# Development

Casio's approach to product development is all about creating something from nothing, or going from "0" to "1." Casio employs its creative product planning and design capabilities to conceive new ways to meet consumers' latent needs. Casio's advanced technologies are then put to work to deliver products that provide entirely new value.

## Product Planning

### Going Beyond Conventional Thinking—The "0" to "1" Approach to Meeting the Essence of User Need

Casio focuses on the experience that people really want to have with its products. This ensures that the company's product planning is always fresh, as developers even think outside the box of Casio's existing technologies. A good example of this was the development of a new digital camera with a high-speed image processing engine that enables users to press the shutter button at very short intervals. The idea for this new camera came from a frustrating experience that Casio developer Nobuyoshi Nishizaka had one day. He missed the initial moments of his child's first solo bike ride, because his high-speed continuous shooting camera was busy processing images taken an instant before and was not ready for the shutter to be pressed again. He himself had been part of the team that developed the advanced continuous shooting function, but Nishizaka realized the



The unpredictable, spontaneous, fleeting smile of a child

camera could not quite capture certain truly unexpected, now-or-never photo opportunities. Up to that point, the development approach had been to create high-speed continuous shooting that could capture virtually anything. Clearly, it was time to expand the concept. So he went back to the drawing board, aiming to create a camera that anyone can easily use to capture the truly spontaneous, memorable moments of life. This flexibility to think beyond even successful existing ideas—the freedom to consider what is really needed—is the key to innovation at Casio.



Nobuyoshi Nishizaka, QV Product Division

## Design

### Providing Plenty of Style Options—Something for Everyone

Casio uses a design approach called "CMF" for "color, material, and finish." Perfect for creating product variation, this process makes it efficient for Casio to offer a variety of different looks for each model. Designers can give a base model not only different colors, but also a wide range of material textures and surface finishes. With G-SHOCK watches for example, special printing or metallic treatment on the plastic base material gives each design a unique feel, which would be difficult with actual metal or natural leather. For watches, the CMF approach is reflected not only in the hands and dial, but also in the watchband, to provide each watch with its own strong personality. Customers love to express themselves by choosing the Casio product that best fits who they want to be. This is yet another way that Casio creates new value.



Recreating the texture of leather materials with a special surface treatment